Release notes for ENDF/B-VII.1 neutrons sublibrary

December 20, 2011

NJOY99 A cummulative probability table decreases, indicating a goof in a spectrum: `n-063_Eu_153.endf`

NJOY99 An unidentified mismatch in a photon production sum: `n-063_Eu_153.endf`

NJOY99 Main energy grid is not monotonic: `n-042_Mo_097.endf`, `n-095_Am_243.endf`

NJOY99 Outgoing energy E' not energetically allow: E' .le. E-Q.: `n-006_C_000.endf`, `n-007_N_014.endf`, `n-008_O_016.endf`, `n-013_Al_027.endf`, `n-014_Si_028.endf`, `n-014_Si_029.endf`, `n-014_Si_030.endf`, `n-015_P_031.endf`, `n-020_Ca_040.endf`, `n-020_Ca_043.endf`, `n-020_Ca_046.endf`, `n-020_Ca_048.endf`, `n-024_Cr_050.endf`, `n-024_Cr_052.endf`, `n-024_Cr_053.endf`, `n-024_Cr_054.endf`, `n-026_Fe_054.endf`, `n-026_Fe_056.endf`, `n-026_Fe_057.endf`, `n-028_Ni_058.endf`, `n-028_Ni_060.endf`, `n-028_Ni_061.endf`, `n-028_Ni_062.endf`, `n-028_Ni_064.endf`, `n-029_Cu_063.endf`, `n-029_Cu_065.endf`, `n-041_Nb_093.endf`, `n-073_Ta_180.endf`, `n-080_Hg_198.endf`, `n-080_Hg_199.endf`, `n-080_Hg_200.endf`, `n-080_Hg_201.endf`, `n-080_Hg_202.endf`, `n-080_Hg_204.endf`, `n-082_Pb_204.endf`, `n-082_Pb_206.endf`, `n-082_Pb_207.endf`, `n-082_Pb_208.endf`, `n-083_Bi_209.endf`

checkr The incident particle Emax does not extend far enough (should be 20 MeV for neutrons): `n-004_Be_007.endf`

fizcon A level's energy is somehow off: `n-091_Pa_229.endf`

fizcon All probability distributions should be normalized to 1, this one isn't.: `n-023_V_050.endf`, `n-030_Zn_065.endf`, `n-030_Zn_067.endf`, `n-030_Zn_068.endf`, `n-030_Zn_070.endf`, `n-041_Nb_093.endf`

fizcon Outgoing energy E' not energetically allow: E' .le. E-Q.: `n-018_Ar_040.endf`, `n-050_Sn_120.endf`, `n-072_Hf_174.endf`, `n-072_Hf_176.endf`, `n-072_Hf_177.endf`, `n-072_Hf_178.endf`, `n-072_Hf_179.endf`, `n-072_Hf_180.endf`

fudge Wrong interpolation mode used.: `n-001_H_002.endf`, `n-001_H_002.endf`, `n-082_Pb_208.endf`, `n-082_Pb_208.endf`

psyche Missing total and/or elastic so can not do cross section sanity tests: `n-004_Be_007.endf`

psyche PSYCHE attempted to compute average Eg, found something unusual: `n-017_Cl_035.endf`, `n-017_Cl_037.endf`, `n-020_Ca_040.endf`, `n-020_Ca_042.endf`, `n-020_Ca_043.endf`, `n-020_Ca_044.endf`, `n-020_Ca_046.endf`, `n-020_Ca_048.endf`, `n-082_Pb_204.endf`, `n-082_Pb_206.endf`, `n-082_Pb_207.endf`

<div align="center">————————— n-001_H_001.endf —————————</div>

- `fizcon` Non-errors:

    1. 2-body MT102 OK for 1H: 1H(n,g)2H

           ERROR(S) FOUND IN MAT= 125, MF= 6, MT=102
               DISCRETE 2-BODY LAW NOT PERMITTED FOR MT= 102   SEQUENCE NUMBER   2

<div align="center">————————— n-001_H_002.endf —————————</div>

- `fudge` Errors:

    1. Wrong interpolation mode used.

           WARNING: Some interpolation changed for angular data from 2 to 4.

    2. Wrong interpolation mode used.

           WARNING: Some interpolation flags changing to 2 for MF = 4, LTT = 2 or 3

<div align="center">————————— n-001_H_003.endf —————————</div>

- Passed All Checks!

<div align="center">————————— n-002_He_003.endf —————————</div>

- Passed All Checks!

<div align="center">————————— n-002_He_004.endf —————————</div>

- Passed All Checks!

<div align="center">————————— n-003_Li_006.endf —————————</div>

- `fizcon` Non-errors:

    1. 2-body MT105 OK for 6Li: 6Li(n,t)a

           ERROR(S) FOUND IN MAT= 325, MF= 6, MT=105
               DISCRETE 2-BODY LAW NOT PERMITTED FOR MT= 105   SEQUENCE NUMBER   2

<div align="center">————————— n-003_Li_007.endf —————————</div>

- Passed All Checks!

<div align="center">————————— n-004_Be_007.endf —————————</div>

- `checkr` Errors:

    1. The incident particle Emax does not extend far enough (should be 20 MeV for neutrons)

<div align="center">2</div>

```
                ERROR(S) FOUND IN MAT= 419, MF= 1, MT=451
                    EMAX = 8.10E+06 OUT OF RANGE 2.00E+07 - 5.00E+08 SEQUENCE NUMBER     3
                                    DIST-DEC06                           20111222
```

- `psyche` Errors:

  1. Missing total and/or elastic so can not do cross section sanity tests

     ```
     CANNOT PERFORM WICK LIMIT TEST BECAUSE TOTAL AND/OR ELASTIC CROSS SECTIONS ARE MISSING
     ```

————————————————————— n-004_Be_009.endf —————————————————————

- Passed All Checks!

————————————————————— n-005_B_010.endf —————————————————————

- Passed All Checks!

————————————————————— n-005_B_011.endf —————————————————————

- Passed All Checks!

————————————————————— n-006_C_000.endf —————————————————————

- `NJOY99` Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

     ```
     energy distributions
        ep.gt.epmax 8.509482E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
        awr.lt.180---this is probably an error.
     ```

————————————————————— n-007_N_014.endf —————————————————————

- `NJOY99` Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

     ```
     energy distributions
        ep.gt.epmax 8.701311E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
        awr.lt.180---this is probably an error.
     energy distributions
     ...
        awr.lt.180---this is probably an error.
     ```

————————————————————— n-007_N_015.endf —————————————————————

- Passed All Checks!

————————————————————— n-008_O_016.endf —————————————————————

- `fizcon` Non-errors:

1. Nested NC-type cov. OK

   ```
   ERROR(S) FOUND IN MAT= 825, MF=33, MT=103
       BAD NC-TYPE SUB-SUBSECTION                         SEQUENCE NUMBER     4
           CONFLICTS WITH SUB-SUBSECTION AT      4
           DERIVED MT=  4 USED AS AN MTI IN MT=103
   ...
   ```

- `NJOY99` Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

     ```
     energy distributions
        ep.gt.epmax 8.848774E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
        awr.lt.180---this is probably an error.
     ```

     ———————————————————n-008_O_017.endf ————————————————————

- Passed All Checks!

  ———————————————————n-009_F_019.endf ————————————————————

- Passed All Checks!

  ———————————————————n-011_Na_022.endf ————————————————————

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
             DENSITY  6.84072E+04 SHOULD BE  4.18453E+04

             DENSITY  6.84072E+04 SHOULD BE  4.18453E+04
     ```

     ...

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
             LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04

             LIES OUTSIDE LIMITS 1.00000E-05 TO 2.00000E-04
     ```

     ...

  3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
              THE CALCULATED Q  1.05825E+07 DISSAGREES WITH THE GIVEN Q  1.24200E+07

              THE CALCULATED Q  1.86011E+06 DISSAGREES WITH THE GIVEN Q  3.62500E+06

              THE CALCULATED Q  2.93658E+05 DISSAGREES WITH THE GIVEN Q  1.95000E+06
```

―――――――――――――――n-011_Na_023.endf ―――――――――――――――

- psyche Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
              AT RESONANCE ENERGY  7.61700E+03 EV. THE GAMMA WIDTH  6.00000E-01 DEVIATES TOO MUC

              AT RESONANCE ENERGY  5.32200E+04 EV. THE GAMMA WIDTH  7.85000E-01 DEVIATES TOO MUC

              AT RESONANCE ENERGY  2.36710E+05 EV. THE GAMMA WIDTH  1.59000E+00 DEVIATES TOO MUC
```

    2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
              LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04
```

―――――――――――――――n-012_Mg_024.endf ―――――――――――――――

- psyche Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
              AT RESONANCE ENERGY  4.98200E+05 EV. THE GAMMA WIDTH  3.80000E-01 DEVIATES TOO MUC
```

    2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
              LIES OUTSIDE LIMITS 1.00000E-05 TO 2.00000E-04
```

―――――――――――――――n-012_Mg_025.endf ―――――――――――――――

- psyche Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
              LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04

              LIES OUTSIDE LIMITS 1.00000E-05 TO 2.00000E-04
```

2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
          THE CALCULATED Q  3.69071E+05 DISSAGREES WITH THE GIVEN Q  4.80349E+05
```

_____ n-012_Mg_026.endf _____

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
              LIES OUTSIDE LIMITS 1.00000E-05 TO 2.00000E-04
```

_____ n-013_Al_027.endf _____

- `psyche` Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
         AT RESONANCE ENERGY  4.29510E+05 EV. THE GAMMA WIDTH  5.07030E-01 DEVIATES TOO MUC

         AT RESONANCE ENERGY  4.90416E+05 EV. THE GAMMA WIDTH  4.90900E-01 DEVIATES TOO MUC
```

     ...

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
              LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04

              LIES OUTSIDE LIMITS 1.00000E-05 TO 2.00000E-04
```

- `NJOY99` Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

```
energy distributions
   ep.gt.epmax 9.292258E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
   awr.lt.180---this is probably an error.
energy distributions
...
   awr.lt.180---this is probably an error.
```

_____ n-014_Si_028.endf _____

- `fizcon` Non-errors:

  1. Nested NC-type cov. OK

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```
        ERROR(S) FOUND IN MAT=1425, MF=33, MT=  4
            BAD NC-TYPE SUB-SUBSECTION                        SEQUENCE NUMBER      4
                CONFLICTS WITH SUB-SUBSECTION AT      4
                DERIVED MT=  1 USED AS AN MTI IN MT=  4
```

- psyche Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

     ```
            AT RESONANCE ENERGY  3.99680E+05 EV. THE GAMMA WIDTH  6.60000E-01 DEVIATES TOO MU(

            AT RESONANCE ENERGY  9.10040E+05 EV. THE GAMMA WIDTH  1.13000E+00 DEVIATES TOO MU(
     ```

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
                      LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04
     ```

- NJOY99 Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

     ```
     energy distributions
        ep.gt.epmax 9.316141E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
        awr.lt.180---this is probably an error.
     energy distributions
     ...
        awr.lt.180---this is probably an error.
     ```

  ────────────────── n-014_Si_029.endf ──────────────────

- psyche Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

     ```
            AT RESONANCE ENERGY  5.52242E+05 EV. THE GAMMA WIDTH  5.70000E+00 DEVIATES TOO MU(

            AT RESONANCE ENERGY  6.53065E+05 EV. THE GAMMA WIDTH  6.30000E+00 DEVIATES TOO MU(
     ```

     ...

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
                      LIES OUTSIDE LIMITS 1.00000E-05 TO 2.00000E-04
     ```

- NJOY99 Errors:

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1. Outgoing energy E' not energetically allow: E' .le. E-Q.

```
energy distributions
   ep.gt.epmax 9.338548E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
   awr.lt.180---this is probably an error.
```

—————————————— n-014_Si_030.endf ——————————————

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04

- `NJOY99` Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

```
energy distributions
   ep.gt.epmax 9.359472E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
   awr.lt.180---this is probably an error.
energy distributions
   ep.gt.epmax 2.059083E+01 with q.lt.0 for (n,x) at e  2.200000E+01 -> 2.104191E+01
   awr.lt.180---this is probably an error.
```

—————————————— n-015_P_031.endf ——————————————

- `NJOY99` Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

```
energy distributions
   ep.gt.epmax 9.379190E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
   awr.lt.180---this is probably an error.
energy distributions
...
   awr.lt.180---this is probably an error.
```

—————————————— n-016_S_032.endf ——————————————

- `psyche` Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

     AT RESONANCE ENERGY 8.84590E+05 EV. THE GAMMA WIDTH 1.89200E+01 DEVIATES TOO MUC

     AT RESONANCE ENERGY 1.00780E+06 EV. THE GAMMA WIDTH 6.70000E-01 DEVIATES TOO MUC

     ...

2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

    LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04

n-016_S_033.endf

- `psyche` Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

        LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04

    2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

        THE CALCULATED Q 3.82047E+05 DISSAGREES WITH THE GIVEN Q 5.33469E+05

n-016_S_034.endf

- `psyche` Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

        LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04

n-016_S_036.endf

- Passed All Checks!

n-017_Cl_035.endf

- `psyche` Errors:

    1. PSYCHE attempted to compute average Eg, found something unusual

        GAMMA ERROR E= 1.0439E+07 EBAR= 8.4092E+05 QI=-1.0147E+07

        GAMMA ERROR E= 2.0000E+07 EBAR= 8.4092E+05 QI=-1.0147E+07

    . . .

    `psyche` Unknown:

    1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

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```
          THE CALCULATED Q  5.26750E+05 DISSAGREES WITH THE GIVEN Q  6.15220E+05

          THE CALCULATED Q  1.05363E+06 DISSAGREES WITH THE GIVEN Q  9.38230E+05
```

──────────────────────n-017_Cl_037.endf ──────────────────

- psyche Errors:

    1. PSYCHE attempted to compute average Eg, found something unusual

    ```
            GAMMA ERROR  E= 1.1676E+07  EBAR= 1.5723E+06  QI=-1.1366E+07

            GAMMA ERROR  E= 2.0000E+07  EBAR= 1.5723E+06  QI=-1.1366E+07
    ```

    psyche Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

    ```
        AT RESONANCE ENERGY  8.32082E+03 EV. THE GAMMA WIDTH  1.96340E-01 DEVIATES TOO MU

        AT RESONANCE ENERGY  2.08346E+05 EV. THE GAMMA WIDTH  1.15010E-01 DEVIATES TOO MU
    ```

        . . .

    2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

    ```
                    LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04
    ```

──────────────────────n-018_Ar_036.endf ──────────────────

- psyche Unknown:

    1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

    ```
                DENSITY  1.70600E+04 SHOULD BE  1.48907E+04

                DENSITY  1.70600E+04 SHOULD BE  1.48907E+04
    ```

        . . .

    2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

    ```
                LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04

                LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04
    ```

```
...
```

3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
            THE CALCULATED Q  2.04695E+06 DISSAGREES WITH THE GIVEN Q -4.86400E+05
```

────────────────────── n-018_Ar_038.endf ──────────────────────

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

  ```
                DENSITY  8.17035E+04 SHOULD BE  6.98550E+04

                DENSITY  8.17035E+04 SHOULD BE  6.98550E+04
  ```

  ```
  ...
  ```

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

  ```
                LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04

                LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04
  ```

  ```
  ...
  ```

────────────────────── n-018_Ar_040.endf ──────────────────────

- `fizcon` Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

  ```
      ERROR(S) FOUND IN MAT=1837, MF= 5, MT= 16
          FOR LF=1 EPMAX FOUND TO BE 1.25000E+06 SHOULD BE 1.12912E+06
          FOR LF=1 EPMAX FOUND TO BE 2.25000E+06 SHOULD BE 2.12912E+06
          FOR LF=1 EPMAX FOUND TO BE 3.25000E+06 SHOULD BE 3.12912E+06
      ...
  ```

- `psyche` Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
                    AT RESONANCE ENERGY  1.11810E+04 EV. THE GAMMA WIDTH  7.88000E-02 DEVIATES TOO MUC

                    AT RESONANCE ENERGY  1.79740E+04 EV. THE GAMMA WIDTH  1.37000E-01 DEVIATES TOO MUC
```

. . .

─────────────────────── n-019_K_039.endf ───────────────────────

- psyche Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
                    AT RESONANCE ENERGY  1.21560E+04 EV. THE GAMMA WIDTH  1.58440E-01 DEVIATES TOO MUC

                    AT RESONANCE ENERGY  1.22500E+05 EV. THE GAMMA WIDTH  8.70960E-02 DEVIATES TOO MUC
```

  . . .

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04
```

  3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
                    THE CALCULATED Q  3.85860E+05 DISSAGREES WITH THE GIVEN Q  2.17170E+05

                    THE CALCULATED Q  1.47963E+06 DISSAGREES WITH THE GIVEN Q  1.36325E+06
```

─────────────────────── n-019_K_040.endf ───────────────────────

- Passed All Checks!

─────────────────────── n-019_K_041.endf ───────────────────────

- psyche Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
                    AT RESONANCE ENERGY  2.03021E+03 EV. THE GAMMA WIDTH  2.95800E-01 DEVIATES TOO MUC

                    AT RESONANCE ENERGY  1.33485E+04 EV. THE GAMMA WIDTH  3.68400E-01 DEVIATES TOO MUC
```

  . . .

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

<div align="center">LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04</div>

————————— n-020_Ca_040.endf —————————

- psyche Errors:

    1. PSYCHE attempted to compute average Eg, found something unusual

           GAMMA ERROR E= 1.0000E-05 EBAR= 1.4098E+06 QI= 3.3851E+05

           GAMMA ERROR E= 2.0000E+08 EBAR= 1.4098E+06 QI= 3.3851E+05

       ...

  psyche Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

             AT RESONANCE ENERGY 8.88999E+04 EV. THE GAMMA WIDTH 3.70000E-01 DEVIATES TOO MUC

             AT RESONANCE ENERGY 2.29100E+05 EV. THE GAMMA WIDTH 4.90000E-02 DEVIATES TOO MUC

- NJOY99 Errors:

    1. Outgoing energy E' not energetically allow: E' .le. E-Q.

       ```
       energy distributions
          ep.gt.epmax 9.513683E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-06
          awr.lt.180---this is probably an error.
       energy distributions
       ...
          awr.lt.180---this is probably an error.
       ```

————————— n-020_Ca_042.endf —————————

- psyche Errors:

    1. PSYCHE attempted to compute average Eg, found something unusual

           GAMMA ERROR E= 1.2112E+07 EBAR= 1.4609E+06 QI=-1.1828E+07

           GAMMA ERROR E= 2.0000E+08 EBAR= 1.4609E+06 QI=-1.1828E+07

  psyche Unknown:

    1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

             THE CALCULATED Q 2.93015E+05 DISSAGREES WITH THE GIVEN Q 3.41482E+05

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- `psyche` Errors:

    1. PSYCHE attempted to compute average Eg, found something unusual

           GAMMA ERROR E= 1.0960E+07 EBAR= 9.8048E+05 QI=-1.0709E+07

           GAMMA ERROR E= 2.0000E+08 EBAR= 9.8048E+05 QI=-1.0709E+07

  `psyche` Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

                    LIES OUTSIDE LIMITS 1.00000E-05 TO 2.00000E-04

- `NJOY99` Errors:

    1. Outgoing energy E' not energetically allow: E' .le. E-Q.

       ```
       energy distributions
          ep.gt.epmax 9.546438E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-06
          awr.lt.180---this is probably an error.
       energy distributions
       ...
          awr.lt.180---this is probably an error.
       ```

- `psyche` Errors:

    1. PSYCHE attempted to compute average Eg, found something unusual

           GAMMA ERROR E= 1.0743E+07 EBAR= 5.6120E+05 QI=-1.0502E+07

           GAMMA ERROR E= 2.0000E+08 EBAR= 5.6120E+05 QI=-1.0502E+07

       ...

  `psyche` Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

                AT RESONANCE ENERGY 4.20700E+04 EV. THE GAMMA WIDTH 3.28327E-01 DEVIATES TOO MUC

                AT RESONANCE ENERGY 1.45600E+05 EV. THE GAMMA WIDTH 4.70000E+00 DEVIATES TOO MUC

- `psyche` Errors:

    1. PSYCHE attempted to compute average Eg, found something unusual

            GAMMA ERROR E= 9.0728E+06 EBAR= 1.9443E+06 QI=-8.8780E+06

            GAMMA ERROR E= 2.0000E+08 EBAR= 1.9443E+06 QI=-8.8780E+06

        ...

- `NJOY99` Errors:

    1. Outgoing energy E' not energetically allow: E' .le. E-Q.

        ```
        energy distributions
           ep.gt.epmax 9.575049E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-06
           awr.lt.180---this is probably an error.
        energy distributions
        ...
           awr.lt.180---this is probably an error.
        ```

    ───────────────────── n-020_Ca_048.endf ─────────────────────

- `psyche` Errors:

    1. PSYCHE attempted to compute average Eg, found something unusual

            GAMMA ERROR E= 6.7533E+06 EBAR= 6.6142E+06 QI=-6.6142E+06

            GAMMA ERROR E= 2.0000E+08 EBAR= 6.6142E+06 QI=-6.6142E+06

    `psyche` Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

            AT RESONANCE ENERGY 3.03600E+05 EV. THE GAMMA WIDTH 3.00000E-01 DEVIATES TOO MUC

    2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

            LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04

    3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

            THE CALCULATED Q 4.89014E+06 DISSAGREES WITH THE GIVEN Q 5.14663E+06

- `NJOY99` Errors:

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1. Outgoing energy E' not energetically allow: E' .le. E-Q.

```
energy distributions
   ep.gt.epmax 9.592217E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-06
   awr.lt.180---this is probably an error.
energy distributions
...
   awr.lt.180---this is probably an error.
```

———————————————— n-021_Sc_045.endf ————————————————

- psyche Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     AT RESONANCE ENERGY  4.71800E+04 EV. THE GAMMA WIDTH  5.30000E-02 DEVIATES TOO MU(

     AT RESONANCE ENERGY  6.78500E+04 EV. THE GAMMA WIDTH  2.67000E+00 DEVIATES TOO MU(
     ```

     . . .

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  6.74121E+05 DISSAGREES WITH THE GIVEN Q  5.26000E+05
     ```

———————————————— n-022_Ti_046.endf ————————————————

- psyche Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     AT RESONANCE ENERGY  5.66600E+04 EV. THE GAMMA WIDTH  1.80000E+00 DEVIATES TOO MU(
     ```

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     LIES OUTSIDE LIMITS 1.00000E-05 TO 2.00000E-04
     ```

———————————————— n-022_Ti_047.endf ————————————————

- psyche Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     AT RESONANCE ENERGY  4.10600E+04 EV. THE GAMMA WIDTH  2.60000E-01 DEVIATES TOO MU(
     ```

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

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```
                        LIES OUTSIDE LIMITS 1.00000E-05 TO 2.00000E-04
```

3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  3.18715E+05 DISSAGREES WITH THE GIVEN Q  1.82300E+05

        THE CALCULATED Q  2.40541E+06 DISSAGREES WITH THE GIVEN Q  2.18115E+06
```

─────────────────── n-022_Ti_048.endf ───────────────────

- psyche Unknown:

1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
        AT RESONANCE ENERGY  1.54670E+05 EV. THE GAMMA WIDTH  3.32410E-01 DEVIATES TOO MUC

        AT RESONANCE ENERGY  1.86220E+05 EV. THE GAMMA WIDTH  1.74050E-01 DEVIATES TOO MUC
```

    . . .

2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  4.84925E+06 DISSAGREES WITH THE GIVEN Q  8.14240E+06
```

─────────────────── n-022_Ti_049.endf ───────────────────

- psyche Unknown:

1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  1.42375E+07 DISSAGREES WITH THE GIVEN Q  1.09394E+07

        THE CALCULATED Q  1.79628E+06 DISSAGREES WITH THE GIVEN Q -1.22283E+06

        THE CALCULATED Q  3.54431E+06 DISSAGREES WITH THE GIVEN Q  2.27450E+05
```

─────────────────── n-022_Ti_050.endf ───────────────────

- psyche Unknown:

1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                        LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04
```

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$\underline{\qquad\qquad\qquad}$ n-023_V_050.endf $\underline{\qquad\qquad\qquad}$

- `fizcon` Errors:

    1. All probability distributions should be normalized to 1, this one isn't.

        ```
        ERROR(S) FOUND IN MAT=2325, MF= 6, MT=102
            CHECK NORMALIZATION=   1.000506 AT E= 1.0000E+07 SEQUENCE NUMBER  9816
        ```

$\underline{\qquad\qquad\qquad}$ n-023_V_051.endf $\underline{\qquad\qquad\qquad}$

- `psyche` Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

        ```
        AT RESONANCE ENERGY  4.81400E+04 EV. THE GAMMA WIDTH  4.33000E-01 DEVIATES TOO MUC

        AT RESONANCE ENERGY  5.19800E+04 EV. THE GAMMA WIDTH  3.94000E-01 DEVIATES TOO MUC

        AT RESONANCE ENERGY  9.59299E+04 EV. THE GAMMA WIDTH  4.27000E-01 DEVIATES TOO MUC
        ```

$\underline{\qquad\qquad\qquad}$ n-024_Cr_050.endf $\underline{\qquad\qquad\qquad}$

- `psyche` Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

        ```
        AT RESONANCE ENERGY  5.46200E+03 EV. THE GAMMA WIDTH  1.00000E-02 DEVIATES TOO MUC

        AT RESONANCE ENERGY  9.30400E+03 EV. THE GAMMA WIDTH  3.33000E+00 DEVIATES TOO MUC
        ```

        ...

    2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

        ```
        THE CALCULATED Q  3.69906E+05 DISSAGREES WITH THE GIVEN Q  3.19500E+05
        ```

- `NJOY99` Errors:

    1. Outgoing energy E' not energetically allow: E' .le. E-Q.

        ```
        energy distributions
           ep.gt.epmax 9.608011E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
           awr.lt.180---this is probably an error.
        energy distributions
        ...
           awr.lt.180---this is probably an error.
        ```

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- `psyche` Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     AT RESONANCE ENERGY  3.16383E+04 EV. THE GAMMA WIDTH  2.20555E-01 DEVIATES TOO MUC
     ```

     ```
     AT RESONANCE ENERGY  9.66934E+04 EV. THE GAMMA WIDTH  5.20000E+00 DEVIATES TOO MUC
     ```

     ...

- `NJOY99` Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

     ```
     energy distributions
        ep.gt.epmax 9.622632E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
        awr.lt.180---this is probably an error.
     energy distributions
     ...
        awr.lt.180---this is probably an error.
     ```

- `psyche` Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     AT RESONANCE ENERGY  2.58956E+04 EV. THE GAMMA WIDTH  3.72310E-01 DEVIATES TOO MUC
     ```

     ```
     AT RESONANCE ENERGY  7.42983E+04 EV. THE GAMMA WIDTH  3.32771E-01 DEVIATES TOO MUC
     ```

     ...

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  2.01714E+06 DISSAGREES WITH THE GIVEN Q  1.79500E+06
     ```

- `NJOY99` Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

     ```
     energy distributions
        ep.gt.epmax 9.629565E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
        awr.lt.180---this is probably an error.
     energy distributions
     ...
        awr.lt.180---this is probably an error.
     ```

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- `psyche` Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

     ```
           AT RESONANCE ENERGY  2.31489E+04 EV. THE GAMMA WIDTH  1.90000E-01 DEVIATES TOO MUC

           AT RESONANCE ENERGY  5.11449E+04 EV. THE GAMMA WIDTH  1.60000E-01 DEVIATES TOO MUC
     ```

- `NJOY99` Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

     ```
     energy distributions
        ep.gt.epmax 9.636235E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
        awr.lt.180---this is probably an error.
     energy distributions
     ...
        awr.lt.180---this is probably an error.
     ```

- `fizcon` Non-errors:

  1. GANDR gave this guy huge uncertainties, they are correct, but the evaluations could be better

     ```
       WARNING(S)     IN MAT=2525, MF=33, MT=856
          VARIANCE INCORRECT                              SEQUENCE NUMBER   23
             VAR= 2.26627E+04 AT LIST LOCATION 116
          VARIANCE INCORRECT                              SEQUENCE NUMBER   24
     ...
     ```

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
             DENSITY  4.08327E+03 SHOULD BE  3.39921E+03

             DENSITY  3.85481E+03 SHOULD BE  3.20902E+03
     ...
     ```

  2. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
                    AT RESONANCE ENERGY  8.61087E+04 EV. THE GAMMA WIDTH  1.57285E-01 DEVIATES TOO MUC

                    AT RESONANCE ENERGY  1.11748E+05 EV. THE GAMMA WIDTH  1.02734E-01 DEVIATES TOO MUC

                    AT RESONANCE ENERGY  1.21382E+05 EV. THE GAMMA WIDTH  1.17702E-01 DEVIATES TOO MUC
```

3. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    LIES OUTSIDE LIMITS 1.00000E-05 TO 2.00000E-04

                    LIES OUTSIDE LIMITS 1.00000E-05 TO 2.00000E-04
```

...

- `fudge` Non-errors:

  1. GANDR gave this guy huge uncertainties, they are correct, but the evaluations could be better

  ```
  n-025_Mn_055.endf: WARNING: variance too big for MF/MT=33,856, index 8. 2.512930e+03 > 1.00

  n-025_Mn_055.endf: WARNING: variance too big for MF/MT=33,856, index 9. 2.266270e+04 > 1.00
  ```

  ...

———————————————————— n-026_Fe_054.endf ————————————————————

- `psyche` Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

  ```
                    AT RESONANCE ENERGY  1.88700E+05 EV. THE GAMMA WIDTH  8.00000E+00 DEVIATES TOO MUC

                    AT RESONANCE ENERGY  2.06780E+05 EV. THE GAMMA WIDTH  4.00000E-01 DEVIATES TOO MUC
  ```

  ...

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

  ```
                    THE CALCULATED Q  6.64906E+05 DISSAGREES WITH THE GIVEN Q  8.43000E+05
  ```

- `NJOY99` Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

```
energy distributions
    ep.gt.epmax 9.636235E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
    awr.lt.180---this is probably an error.
energy distributions
...
    awr.lt.180---this is probably an error.
```

_____ n-026_Fe_056.endf _____

- fizcon Non-errors:

    1. These are OK, but overkill.

       ```
       WARNING(S)     IN MAT=2631, MF=33, MT=103
           NOT EXPECTING LB = 4, MATRIX IS SYMMETRIC.
       ```

- psyche Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

       ```
       AT RESONANCE ENERGY  3.31450E+05 EV. THE GAMMA WIDTH  6.00000E+00 DEVIATES TOO MUC

       AT RESONANCE ENERGY  2.28010E+04 EV. THE GAMMA WIDTH  1.80000E+00 DEVIATES TOO MUC
       ```

       ...

    2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

       ```
       THE CALCULATED Q  2.51044E+05 DISSAGREES WITH THE GIVEN Q  3.26000E+05
       ```

- NJOY99 Errors:

    1. Outgoing energy E' not energetically allow: E' .le. E-Q.

       ```
       energy distributions
           ep.gt.epmax 9.648866E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
           awr.lt.180---this is probably an error.
       energy distributions
       ...
           awr.lt.180---this is probably an error.
       ```

_____ n-026_Fe_057.endf _____

- NJOY99 Errors:

    1. Outgoing energy E' not energetically allow: E' .le. E-Q.

```
energy distributions
    ep.gt.epmax 9.654876E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
    awr.lt.180---this is probably an error.
energy distributions
...
    awr.lt.180---this is probably an error.
```

──────────────────── n-026_Fe_058.endf ────────────────────

- psyche Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     AT RESONANCE ENERGY  6.72000E+04 EV. THE GAMMA WIDTH  3.00000E-01 DEVIATES TOO MUC

     AT RESONANCE ENERGY  6.19900E+03 EV. THE GAMMA WIDTH  1.00000E-01 DEVIATES TOO MUC

     AT RESONANCE ENERGY  1.52650E+05 EV. THE GAMMA WIDTH  2.70000E+00 DEVIATES TOO MUC

     AT RESONANCE ENERGY  1.30880E+05 EV. THE GAMMA WIDTH  1.80000E+00 DEVIATES TOO MUC
     ```

──────────────────── n-027_Co_058.endf ────────────────────

- psyche Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     DENSITY  5.75394E+02 SHOULD BE  4.95156E+02

     DENSITY  5.74933E+02 SHOULD BE  4.94759E+02
     ```

     ...

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  2.89707E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00

     THE CALCULATED Q  3.32367E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
     ```

──────────────────── n-027_Co_058m1.endf ────────────────────

- psyche Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04
     ```

23

2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
THE CALCULATED Q  2.89707E+06 DISSAGREES WITH THE GIVEN Q  3.09000E+06

THE CALCULATED Q  3.32367E+06 DISSAGREES WITH THE GIVEN Q  3.51300E+06
```

_____ n-027_Co_059.endf _____

- `psyche` Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

    ```
    AT RESONANCE ENERGY  5.65290E+04 EV. THE GAMMA WIDTH  9.99810E-02 DEVIATES TOO MUC

    AT RESONANCE ENERGY  5.67610E+04 EV. THE GAMMA WIDTH  1.00000E-01 DEVIATES TOO MUC

    AT RESONANCE ENERGY  5.74340E+04 EV. THE GAMMA WIDTH  9.99980E-02 DEVIATES TOO MUC
    ```

    2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

    ```
    THE CALCULATED Q  4.50770E+05 DISSAGREES WITH THE GIVEN Q  3.29000E+05
    ```

_____ n-028_Ni_058.endf _____

- `fizcon` Non-errors:

    1. These are OK, but overkill.

    ```
    WARNING(S)     IN MAT=2825, MF=33, MT=103
        NOT EXPECTING LB = 4, MATRIX IS SYMMETRIC.
    ```

- `psyche` Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

    ```
    AT RESONANCE ENERGY  1.40307E+05 EV. THE GAMMA WIDTH  3.37844E-01 DEVIATES TOO MUC

    AT RESONANCE ENERGY  1.76165E+05 EV. THE GAMMA WIDTH  5.24530E-01 DEVIATES TOO MUC
    ```

    ...

    2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

    ```
    THE CALCULATED Q  3.60545E+05 DISSAGREES WITH THE GIVEN Q  4.02000E+05
    ```

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- NJOY99 Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

  ```
  energy distributions
     ep.gt.epmax 9.660684E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
     awr.lt.180---this is probably an error.
  energy distributions
     ep.gt.epmax 2.125350E+01 with q.lt.0 for (n,x) at e  2.200000E+01 -> 2.137781E+01
     awr.lt.180---this is probably an error.
  ```

  ───────────────────── n-028_Ni_059.endf ─────────────────────

- psyche Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

  ```
          AT RESONANCE ENERGY  9.85000E+03 EV. THE GAMMA WIDTH  4.00000E-01 DEVIATES TOO MUC
  ```

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

  ```
             LIES OUTSIDE LIMITS 1.00000E-05 TO 2.00000E-04
  ```

  ───────────────────── n-028_Ni_060.endf ─────────────────────

- psyche Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

  ```
          AT RESONANCE ENERGY  2.87175E+04 EV. THE GAMMA WIDTH  3.69440E-01 DEVIATES TOO MUC

          AT RESONANCE ENERGY  4.31011E+04 EV. THE GAMMA WIDTH  2.29382E-01 DEVIATES TOO MUC
  ```

  `...`

- NJOY99 Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

  ```
  energy distributions
     ep.gt.epmax 9.671701E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
     awr.lt.180---this is probably an error.
  energy distributions
  ...
     awr.lt.180---this is probably an error.
  ```

  ───────────────────── n-028_Ni_061.endf ─────────────────────

- psyche Unknown:

1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

                    LIES OUTSIDE LIMITS 1.00000E-05 TO 2.00000E-04

2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

            THE CALCULATED Q 3.37018E+06 DISSAGREES WITH THE GIVEN Q 3.57900E+06

- NJOY99 Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

     ```
     energy distributions
        ep.gt.epmax 9.676960E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
        awr.lt.180---this is probably an error.
     energy distributions
     ...
        awr.lt.180---this is probably an error.
     ```

  ────────────────── n-028_Ni_062.endf ──────────────────

- psyche Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

                    DENSITY 5.94681E+03 SHOULD BE 4.86982E+03

                    DENSITY 5.46282E+03 SHOULD BE 4.47348E+03

     ...

  2. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

           AT RESONANCE ENERGY 1.45000E+05 EV. THE GAMMA WIDTH 2.40000E+00 DEVIATES TOO MUC

           AT RESONANCE ENERGY 1.60500E+05 EV. THE GAMMA WIDTH 3.72000E+00 DEVIATES TOO MUC

- NJOY99 Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

     ```
     energy distributions
        ep.gt.epmax 9.682034E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
        awr.lt.180---this is probably an error.
     ```

  ────────────────── n-028_Ni_064.endf ──────────────────

- `NJOY99` Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

     ```
     energy distributions
        ep.gt.epmax 9.691751E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
        awr.lt.180---this is probably an error.
     ```

  ───────────────────────── n-029_Cu_063.endf ─────────────────────────

- `NJOY99` Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

     ```
     energy distributions
        ep.gt.epmax 9.686976E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
        awr.lt.180---this is probably an error.
     energy distributions
     ...
        awr.lt.180---this is probably an error.
     ```

  ───────────────────────── n-029_Cu_065.endf ─────────────────────────

- `psyche` Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

     ```
            AT RESONANCE ENERGY  4.41840E+04 EV. THE GAMMA WIDTH  8.80000E-02 DEVIATES TOO MUC

            AT RESONANCE ENERGY  4.49300E+04 EV. THE GAMMA WIDTH  1.20000E-01 DEVIATES TOO MUC
     ```

- `NJOY99` Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

     ```
     energy distributions
        ep.gt.epmax 9.696388E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
        awr.lt.180---this is probably an error.
     energy distributions
     ...
        awr.lt.180---this is probably an error.
     ```

  ───────────────────────── n-030_Zn_064.endf ─────────────────────────

- `psyche` Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

     ```
            AT RESONANCE ENERGY  6.89320E+04 EV. THE GAMMA WIDTH  1.81000E-01 DEVIATES TOO MUC

            AT RESONANCE ENERGY  7.31350E+04 EV. THE GAMMA WIDTH  2.06000E-01 DEVIATES TOO MUC
     ```

     ...

_____ n-030_Zn_065.endf _____

- `fizcon` Errors:

    1. All probability distributions should be normalized to 1, this one isn't.

            ERROR(S) FOUND IN MAT=3028, MF= 6, MT=102
                CHECK NORMALIZATION=   1.000551 AT E= 1.2000E+07 SEQUENCE NUMBER 4958

_____ n-030_Zn_066.endf _____

- `psyche` Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

                AT RESONANCE ENERGY 1.42000E+04 EV. THE GAMMA WIDTH 1.77200E+00 DEVIATES TOO MU

                AT RESONANCE ENERGY 3.10200E+04 EV. THE GAMMA WIDTH 1.33000E-01 DEVIATES TOO MU

        ...

_____ n-030_Zn_067.endf _____

- `fizcon` Errors:

    1. All probability distributions should be normalized to 1, this one isn't.

            ERROR(S) FOUND IN MAT=3034, MF= 6, MT=102
                CHECK NORMALIZATION=   0.999410 AT E= 1.0000E+07 SEQUENCE NUMBER 5446

_____ n-030_Zn_068.endf _____

- `fizcon` Errors:

    1. All probability distributions should be normalized to 1, this one isn't.

            ERROR(S) FOUND IN MAT=3037, MF= 6, MT=102
                CHECK NORMALIZATION=   0.999440 AT E= 1.0000E+00 SEQUENCE NUMBER   129
                CHECK NORMALIZATION=   0.999399 AT E= 1.0000E+02 SEQUENCE NUMBER   317

- `psyche` Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

                AT RESONANCE ENERGY 5.04000E+03 EV. THE GAMMA WIDTH 7.30000E-02 DEVIATES TOO MU

                AT RESONANCE ENERGY 6.56600E+04 EV. THE GAMMA WIDTH 1.29000E+00 DEVIATES TOO MU

                AT RESONANCE ENERGY 1.06170E+05 EV. THE GAMMA WIDTH 5.00000E-02 DEVIATES TOO MU

2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  6.48228E+05 DISSAGREES WITH THE GIVEN Q  7.65233E+05
```

────────────────── n-030_Zn_070.endf ──────────────────

- **fizcon** Errors:

  1. All probability distributions should be normalized to 1, this one isn't.

  ```
      ERROR(S) FOUND IN MAT=3043, MF= 6, MT=102
          CHECK NORMALIZATION=   0.999291 AT E= 1.0000E-05 SEQUENCE NUMBER    28
          CHECK NORMALIZATION=   0.999291 AT E= 1.0000E-01 SEQUENCE NUMBER    58
          CHECK NORMALIZATION=   1.000621 AT E= 1.0000E+00 SEQUENCE NUMBER    88
          CHECK NORMALIZATION=   0.999157 AT E= 7.0000E+02 SEQUENCE NUMBER   268
  ```

- **psyche** Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

  ```
                  LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04

                  LIES OUTSIDE LIMITS 1.00000E-05 TO 2.00000E-04
  ```

  ...

────────────────── n-031_Ga_069.endf ──────────────────

- Passed All Checks!

────────────────── n-031_Ga_071.endf ──────────────────

- **psyche** Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

  ```
          AT RESONANCE ENERGY  5.56200E+03 EV. THE GAMMA WIDTH  3.66700E+00 DEVIATES TOO MUC
  ```

────────────────── n-032_Ge_070.endf ──────────────────

- **psyche** Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    DENSITY  7.59314E+02 SHOULD BE   5.56963E+02

                    DENSITY  7.59314E+02 SHOULD BE   5.56963E+02
```

   ...

   2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expecta-
      tions

```
              TOTAL OF    26 POINTS IN ERROR FOR THIS J-STATE

              TOTAL OF    26 POINTS IN ERROR FOR THIS J-STATE
```

   3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, ex-
      pectations

```
         THE CALCULATED Q  3.03318E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

──────────────────── n-032_Ge_072.endf ────────────────────

- psyche Unknown:

   1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expecta-
      tions

```
                    DENSITY  6.24408E+02 SHOULD BE   6.31050E+02

                    DENSITY  5.56138E+02 SHOULD BE   5.63450E+02
```

   ...

   2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, ex-
      pectations

```
         THE CALCULATED Q  1.57813E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

──────────────────── n-032_Ge_073.endf ────────────────────

- psyche Unknown:

   1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expecta-
      tions

```
                    DENSITY  3.23498E+02 SHOULD BE   1.15138E+02

                    DENSITY  3.23473E+02 SHOULD BE   1.15129E+02
```

   ...

2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
THE CALCULATED Q  4.17142E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

─────────── n-032_Ge_074.endf ───────────

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     DENSITY  1.89461E+03 SHOULD BE  1.38971E+03

     DENSITY  1.89461E+03 SHOULD BE  1.38971E+03
     ```

     ...

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     LIES OUTSIDE LIMITS 1.00000E-05 TO 2.00000E-04

     LIES OUTSIDE LIMITS 1.00000E-05 TO 2.00000E-04
     ```

     ...

─────────── n-032_Ge_076.endf ───────────

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     DENSITY  1.92570E+03 SHOULD BE  1.41251E+03

     DENSITY  1.92570E+03 SHOULD BE  1.41251E+03
     ```

     ...

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     LIES OUTSIDE LIMITS 1.00000E-05 TO 2.00000E-04

     LIES OUTSIDE LIMITS 1.00000E-05 TO 2.00000E-04
     ```

     ...

31

—————————— n-033_As_074.endf ——————————

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

               DENSITY 2.34017E+01 SHOULD BE 1.94957E+01

               DENSITY 2.33909E+01 SHOULD BE 1.94867E+01

     . . .

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

                  LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04

  3. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

            TOTAL OF   25 POINTS IN ERROR FOR THIS J-STATE

            TOTAL OF   25 POINTS IN ERROR FOR THIS J-STATE

     . . .

—————————— n-033_As_075.endf ——————————

- `psyche` Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

          AT RESONANCE ENERGY 3.30800E+03 EV. THE GAMMA WIDTH 8.89999E-02 DEVIATES TOO MU

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

                  LIES OUTSIDE LIMITS 1.00000E-05 TO 2.00000E-04

  3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

          THE CALCULATED Q 1.35302E+06 DISSAGREES WITH THE GIVEN Q 1.20157E+06

—————————— n-034_Se_074.endf ——————————

- `psyche` Unknown:

32

1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

   <pre>   LIES OUTSIDE LIMITS 1.00000E-05 TO 2.00000E-04</pre>

2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

   <pre>   THE CALCULATED Q 3.54506E+06 DISSAGREES WITH THE GIVEN Q 3.34731E+06</pre>

`n-034_Se_076.endf`

- Passed All Checks!

`n-034_Se_077.endf`

- Passed All Checks!

`n-034_Se_078.endf`

- `psyche` Unknown:

   1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

      <pre>   THE CALCULATED Q 3.99834E+05 DISSAGREES WITH THE GIVEN Q 4.78818E+05</pre>

`n-034_Se_079.endf`

- `psyche` Unknown:

   1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

      <pre>   LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04

                    LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04</pre>

   . . .

`n-034_Se_080.endf`

- Passed All Checks!

`n-034_Se_082.endf`

- `psyche` Unknown:

   1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
                        AT RESONANCE ENERGY  6.58000E+03 EV. THE GAMMA WIDTH  1.60000E-01 DEVIATES TOO MU(

                        AT RESONANCE ENERGY  1.44800E+04 EV. THE GAMMA WIDTH  1.60000E-01 DEVIATES TOO MU(
```

    2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                            LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04

                            LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
```

    ...

———————————————— n-035_Br_079.endf ————————————————

- psyche Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
                        AT RESONANCE ENERGY  5.02800E+03 EV. THE GAMMA WIDTH  3.54700E-02 DEVIATES TOO MU(
```

    2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                            LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04

                            LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04
```

    ...

    3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
                    THE CALCULATED Q  4.81983E+05 DISSAGREES WITH THE GIVEN Q  6.33056E+05
```

———————————————— n-035_Br_081.endf ————————————————

- psyche Unknown:

    1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
                    THE CALCULATED Q  3.81905E+05 DISSAGREES WITH THE GIVEN Q  4.18215E+05
```

———————————————— n-036_Kr_078.endf ————————————————

- psyche Unknown:

1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

   ```
   LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04
   ```

   ```
   LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04
   ```

   ...

2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

   ```
   THE CALCULATED Q  3.16067E+05 DISSAGREES WITH THE GIVEN Q  5.49215E+04
   ```

───────────────── n-036_Kr_080.endf ─────────────────

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04
     ```

     ```
     LIES OUTSIDE LIMITS 1.00000E-04 TO 9.00000E-04
     ```

     ...

───────────────── n-036_Kr_082.endf ─────────────────

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
     ```

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  8.89334E+05 DISSAGREES WITH THE GIVEN Q  9.83812E+05
     ```

───────────────── n-036_Kr_083.endf ─────────────────

- Passed All Checks!

───────────────── n-036_Kr_084.endf ─────────────────

- `psyche` Unknown:

1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
        AT RESONANCE ENERGY  2.42890E+04 EV. THE GAMMA WIDTH  3.30000E-02 DEVIATES TOO MUC

        AT RESONANCE ENERGY  7.53710E+04 EV. THE GAMMA WIDTH  5.00000E-02 DEVIATES TOO MUC

        AT RESONANCE ENERGY  6.40490E+04 EV. THE GAMMA WIDTH  2.90000E-02 DEVIATES TOO MUC
```

2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
```

———————————————— n-036_Kr_085.endf ————————————————

- `psyche` Unknown:

    1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

    ```
                DENSITY  5.75599E+02 SHOULD BE  4.44588E+02

                DENSITY  5.75487E+02 SHOULD BE  4.44501E+02
    ```

    . . .

    2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

    ```
                TOTAL OF    39 POINTS IN ERROR FOR THIS J-STATE

                TOTAL OF    39 POINTS IN ERROR FOR THIS J-STATE
    ```

    . . .

    3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

    ```
                THE CALCULATED Q  1.76076E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
    ```

———————————————— n-036_Kr_086.endf ————————————————

- `psyche` Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

36

```
                    AT RESONANCE ENERGY  6.85700E+04 EV. THE GAMMA WIDTH  7.50000E-02 DEVIATES TOO MUC

                    AT RESONANCE ENERGY  1.77910E+05 EV. THE GAMMA WIDTH  7.65000E-02 DEVIATES TOO MUC
```

...

2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

─────────────────── n-037_Rb_085.endf ───────────────────

- psyche Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

                    LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
```

    ...

    2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
                    THE CALCULATED Q  8.21569E+06 DISSAGREES WITH THE GIVEN Q  8.65029E+06

                    THE CALCULATED Q  8.12123E+05 DISSAGREES WITH THE GIVEN Q  9.93416E+05
```

─────────────────── n-037_Rb_086.endf ───────────────────

- psyche Unknown:

    1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
                    THE CALCULATED Q  1.80768E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00

                    THE CALCULATED Q  1.96172E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

    2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    DENSITY  2.05406E+02 SHOULD BE  1.73065E+02
```

```
              DENSITY  2.05210E+02 SHOULD BE  1.72900E+02
```

. . .

3. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
              LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

              LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
```

. . .

4. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
        TOTAL OF    22 POINTS IN ERROR FOR THIS J-STATE

        TOTAL OF    22 POINTS IN ERROR FOR THIS J-STATE
```

. . .

─────────────────── n-037_Rb_087.endf ───────────────────

- psyche Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
              LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

              LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
```

. . .

─────────────────── n-038_Sr_084.endf ───────────────────

- psyche Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  2.92773E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

  2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    DENSITY  2.10670E+02 SHOULD BE  1.90886E+02

                    DENSITY  2.10551E+02 SHOULD BE  1.90777E+02
```

   . . .

3. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
               LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
```

4. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
          TOTAL OF    34 POINTS IN ERROR FOR THIS J-STATE

          TOTAL OF    34 POINTS IN ERROR FOR THIS J-STATE
```

──────────────────────── n-038_Sr_086.endf ────────────────────────

- psyche Unknown:

   1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
        AT RESONANCE ENERGY  1.15100E+04 EV. THE GAMMA WIDTH  1.60000E-01 DEVIATES TOO MUC

        AT RESONANCE ENERGY  1.54500E+04 EV. THE GAMMA WIDTH  1.40000E-01 DEVIATES TOO MUC

        AT RESONANCE ENERGY  1.84450E+04 EV. THE GAMMA WIDTH  8.00000E-02 DEVIATES TOO MUC

        AT RESONANCE ENERGY  2.28500E+04 EV. THE GAMMA WIDTH  3.27200E+00 DEVIATES TOO MUC
```

   2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
               LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

               LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
```

──────────────────────── n-038_Sr_087.endf ────────────────────────

- psyche Unknown:

   1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
        AT RESONANCE ENERGY  1.26900E+04 EV. THE GAMMA WIDTH  4.30940E-01 DEVIATES TOO MUC
```

2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                         LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
```

3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
              THE CALCULATED Q  3.13417E+05 DISSAGREES WITH THE GIVEN Q  5.09259E+05
```

───────────────────── n-038_Sr_088.endf ─────────────────────

• psyche Unknown:

1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
                AT RESONANCE ENERGY  5.89000E+04 EV. THE GAMMA WIDTH  2.34000E-02 DEVIATES TOO MU

                AT RESONANCE ENERGY  1.81060E+05 EV. THE GAMMA WIDTH  1.00000E-04 DEVIATES TOO MU
```

...

───────────────────── n-038_Sr_089.endf ─────────────────────

• psyche Unknown:

1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
              THE CALCULATED Q  2.88107E+06 DISSAGREES WITH THE GIVEN Q  2.69760E+06
```

───────────────────── n-038_Sr_090.endf ─────────────────────

• psyche Unknown:

1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
              THE CALCULATED Q  3.14080E+05 DISSAGREES WITH THE GIVEN Q  4.26505E+05
```

───────────────────── n-039_Y_089.endf ─────────────────────

• psyche Unknown:

1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
                AT RESONANCE ENERGY  1.15920E+04 EV. THE GAMMA WIDTH  5.42000E-01 DEVIATES TOO MU
```

2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

       THE CALCULATED Q 5.68092E+05 DISSAGREES WITH THE GIVEN Q 6.91000E+05

─────────────────── n-039_Y_090.endf ───────────────────

- **psyche** Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

       DENSITY 1.81060E+03 SHOULD BE 1.33378E+03

       DENSITY 1.79259E+03 SHOULD BE 1.32052E+03

     . . .

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

       LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

       LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04

─────────────────── n-039_Y_091.endf ───────────────────

- Passed All Checks!

─────────────────── n-040_Zr_090.endf ───────────────────

- **psyche** Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

       DENSITY 6.00515E+03 SHOULD BE 5.20556E+03

       DENSITY 6.00207E+03 SHOULD BE 5.20289E+03

     . . .

  2. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

       AT RESONANCE ENERGY 2.64700E+04 EV. THE GAMMA WIDTH 9.70000E-02 DEVIATES TOO MUC

       AT RESONANCE ENERGY 4.13400E+04 EV. THE GAMMA WIDTH 1.37000E+00 DEVIATES TOO MUC

——————————— n-040_Zr_091.endf ———————————

- **psyche** Unknown:

    1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

                    DENSITY   1.00324E+03 SHOULD BE   7.91774E+02

                    DENSITY   9.93097E+02 SHOULD BE   7.83770E+02

        . . .

    2. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

            AT RESONANCE ENERGY   4.32520E+03 EV. THE GAMMA WIDTH   8.56000E-01 DEVIATES TOO MU(

——————————— n-040_Zr_092.endf ———————————

- Passed All Checks!

——————————— n-040_Zr_093.endf ———————————

- **psyche** Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

            AT RESONANCE ENERGY   5.92400E+03 EV. THE GAMMA WIDTH   2.00000E-03 DEVIATES TOO MU(

    2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

                    LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04

——————————— n-040_Zr_094.endf ———————————

- **psyche** Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

            AT RESONANCE ENERGY   5.75500E+03 EV. THE GAMMA WIDTH   4.30000E-02 DEVIATES TOO MU(

            AT RESONANCE ENERGY   2.22600E+04 EV. THE GAMMA WIDTH   3.50000E-02 DEVIATES TOO MU(

            AT RESONANCE ENERGY   1.05600E+04 EV. THE GAMMA WIDTH   5.80000E-02 DEVIATES TOO MU(

    2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

42

LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04

3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

          THE CALCULATED Q 6.13261E+06 DISSAGREES WITH THE GIVEN Q 6.46300E+06

────────────────────────── n-040_Zr_095.endf ──────────────────────────

- Passed All Checks!

────────────────────────── n-040_Zr_096.endf ──────────────────────────

- psyche Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

          AT RESONANCE ENERGY 3.81800E+03 EV. THE GAMMA WIDTH 4.70000E-02 DEVIATES TOO MUC

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

          LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04

  3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

          THE CALCULATED Q 5.29063E+06 DISSAGREES WITH THE GIVEN Q 5.57900E+06

────────────────────────── n-041_Nb_093.endf ──────────────────────────

- fizcon Errors:

  1. All probability distributions should be normalized to 1, this one isn't.

        ERROR(S) FOUND IN MAT=4125, MF= 5, MT= 32
          NORMALIZATION CHECK INTEGRAL= 9.82505E-01 BEFORE SEQUENCE NUMBER   25

        ERROR(S) FOUND IN MAT=4125, MF= 5, MT= 33
          NORMALIZATION CHECK INTEGRAL= 9.87893E-01 BEFORE SEQUENCE NUMBER   25

- psyche Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

          AT RESONANCE ENERGY 1.00900E+03 EV. THE GAMMA WIDTH 8.13000E-01 DEVIATES TOO MUC

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

43

```
              THE CALCULATED Q  7.48604E+05 DISSAGREES WITH THE GIVEN Q  6.93000E+05
```

- NJOY99 Errors:

    1. Outgoing energy E' not energetically allow: E' .le. E-Q.

       ```
       energy distributions
          ep.gt.epmax 9.786342E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
          awr.lt.180---this is probably an error.
       energy distributions
       ...
          awr.lt.180---this is probably an error.
       ```

       ──────────────────────n-041_Nb_094.endf ──────────────────────

- psyche Unknown:

    1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

       ```
              THE CALCULATED Q  1.77737E+06 DISSAGREES WITH THE GIVEN Q  1.67926E+06
       ```

       ──────────────────────n-041_Nb_095.endf ──────────────────────

- psyche Unknown:

    1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

       ```
              THE CALCULATED Q  3.50417E+06 DISSAGREES WITH THE GIVEN Q  3.68970E+06
       ```

       ──────────────────────n-042_Mo_092.endf ──────────────────────

- psyche Unknown:

    1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

       ```
                DENSITY  1.31741E+03 SHOULD BE  1.12473E+03

                DENSITY  1.30450E+03 SHOULD BE  1.11371E+03
       ```

       ...

    2. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

       ```
           AT RESONANCE ENERGY  2.62200E+04 EV. THE GAMMA WIDTH  1.58000E+00 DEVIATES TOO MUC
       ```

3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
THE CALCULATED Q  3.60970E+05 DISSAGREES WITH THE GIVEN Q  4.23561E+05

THE CALCULATED Q  3.99992E+06 DISSAGREES WITH THE GIVEN Q  3.70670E+06

THE CALCULATED Q  3.60970E+05 DISSAGREES WITH THE GIVEN Q  4.23561E+05

THE CALCULATED Q  3.99992E+06 DISSAGREES WITH THE GIVEN Q  3.70670E+06
```

──────────────────── n-042_Mo_094.endf ────────────────────

- Passed All Checks!

──────────────────── n-042_Mo_095.endf ────────────────────

- `psyche` Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
THE CALCULATED Q  6.56753E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

──────────────────── n-042_Mo_096.endf ────────────────────

- Passed All Checks!

──────────────────── n-042_Mo_097.endf ────────────────────

- `NJOY99` Errors:

  1. Main energy grid is not monotonic

```
that main energy grid is monotonic
   energy  4.20000100E-01 less than  4.20000100E-01 (see point no.  13220)
```

──────────────────── n-042_Mo_098.endf ────────────────────

- `psyche` Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
THE CALCULATED Q  2.97980E+06 DISSAGREES WITH THE GIVEN Q  3.20222E+06

THE CALCULATED Q  2.97980E+06 DISSAGREES WITH THE GIVEN Q  3.20222E+06
```

──────────────────── n-042_Mo_099.endf ────────────────────

- Passed All Checks!

————————— n-042_Mo_100.endf —————————

- `psyche` Unknown:

    1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

            THE CALCULATED Q 1.88453E+06 DISSAGREES WITH THE GIVEN Q 2.41070E+06

————————— n-043_Tc_099.endf —————————

- `psyche` Unknown:

    1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

                DENSITY 2.45864E+01 SHOULD BE 2.14471E+01

                DENSITY 2.45651E+01 SHOULD BE 2.14286E+01

        ...

    2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

            TOTAL OF   32 POINTS IN ERROR FOR THIS J-STATE

            TOTAL OF   32 POINTS IN ERROR FOR THIS J-STATE

        ...

————————— n-044_Ru_096.endf —————————

- `psyche` Unknown:

    1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

            THE CALCULATED Q 8.02908E+05 DISSAGREES WITH THE GIVEN Q 5.28458E+05

————————— n-044_Ru_098.endf —————————

- Passed All Checks!

————————— n-044_Ru_099.endf —————————

- `psyche` Unknown:

    1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

46

```
                 THE CALCULATED Q  5.19792E+05 DISSAGREES WITH THE GIVEN Q  4.88861E+05
```

───────────────────────── n-044_Ru_100.endf ─────────────────────────

- psyche Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                     LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
```

───────────────────────── n-044_Ru_101.endf ─────────────────────────

- psyche Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                     LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
```

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
                 THE CALCULATED Q  5.81889E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

───────────────────────── n-044_Ru_102.endf ─────────────────────────

- psyche Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
                 AT RESONANCE ENERGY  1.22120E+04 EV. THE GAMMA WIDTH  3.79000E-01 DEVIATES TOO MUC
```

───────────────────────── n-044_Ru_103.endf ─────────────────────────

- Passed All Checks!

───────────────────────── n-044_Ru_104.endf ─────────────────────────

- psyche Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                     LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
```

```
                     LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
```

───────────────────────── n-044_Ru_105.endf ─────────────────────────

- Passed All Checks!

─────────────────────────── n-044_Ru_106.endf ───────────────────────────

- Passed All Checks!

─────────────────────────── n-045_Rh_103.endf ───────────────────────────

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     DENSITY  3.91090E+01 SHOULD BE  3.80885E+01

     DENSITY  3.90654E+01 SHOULD BE  3.80461E+01
     ```

     . . .

  2. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     AT RESONANCE ENERGY  1.99780E+02 EV. THE GAMMA WIDTH  6.00000E-01 DEVIATES TOO MUC
     ```

  3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  3.73110E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
     ```

─────────────────────────── n-045_Rh_105.endf ───────────────────────────

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
     ```

─────────────────────────── n-046_Pd_102.endf ───────────────────────────

- Passed All Checks!

─────────────────────────── n-046_Pd_104.endf ───────────────────────────

- Passed All Checks!

─────────────────────────── n-046_Pd_105.endf ───────────────────────────

- `psyche` Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

48

```
            THE CALCULATED Q  2.76067E+05 DISSAGREES WITH THE GIVEN Q  0.00000E+00

            THE CALCULATED Q  6.23945E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

─────────────────────── n-046_Pd_106.endf ───────────────────────

- Passed All Checks!

─────────────────────── n-046_Pd_107.endf ───────────────────────

- psyche Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
        AT RESONANCE ENERGY  4.13100E+01 EV. THE GAMMA WIDTH  3.15400E-02 DEVIATES TOO MU
```

    2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
            LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
```

─────────────────────── n-046_Pd_108.endf ───────────────────────

- psyche Unknown:

    1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  1.91247E+06 DISSAGREES WITH THE GIVEN Q  2.05547E+06
```

─────────────────────── n-046_Pd_110.endf ───────────────────────

- psyche Unknown:

    1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  9.47233E+05 DISSAGREES WITH THE GIVEN Q  1.01147E+06
```

─────────────────────── n-047_Ag_107.endf ───────────────────────

- psyche Unknown:

    1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  8.99067E+05 DISSAGREES WITH THE GIVEN Q  7.49499E+05
```

─────────────────────── n-047_Ag_109.endf ───────────────────────

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     DENSITY  2.57769E+01 SHOULD BE  2.51533E+01

     DENSITY  2.57427E+01 SHOULD BE  2.51199E+01
     ```

     ...

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  3.19059E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
     ```

———————————————— n-047_Ag_110m1.endf ————————————————

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
     ```

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  1.53711E+06 DISSAGREES WITH THE GIVEN Q  1.66146E+06
     ```

———————————————— n-047_Ag_111.endf ————————————————

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     DENSITY  3.14920E+01 SHOULD BE  3.07060E+01

     DENSITY  3.14920E+01 SHOULD BE  3.07060E+01
     ```

     ...

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  2.25145E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
     ```

<div align="center">─────────────── n-048_Cd_106.endf ───────────────</div>

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     <div align="center">LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04</div>

     <div align="center">LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04</div>

     . . .

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     <div align="center">THE CALCULATED Q 5.10528E+05 DISSAGREES WITH THE GIVEN Q 5.80454E+05</div>

<div align="center">─────────────── n-048_Cd_108.endf ───────────────</div>

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     <div align="center">LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04</div>

     <div align="center">LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04</div>

     . . .

<div align="center">─────────────── n-048_Cd_110.endf ───────────────</div>

- Passed All Checks!

<div align="center">─────────────── n-048_Cd_111.endf ───────────────</div>

- Passed All Checks!

<div align="center">─────────────── n-048_Cd_112.endf ───────────────</div>

- Passed All Checks!

<div align="center">─────────────── n-048_Cd_113.endf ───────────────</div>

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

<div align="center">51</div>

```
                DENSITY  3.43791E+01 SHOULD BE  2.89414E+01

                DENSITY  3.43551E+01 SHOULD BE  2.89212E+01
```

   ...

2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
              LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
```

<div align="center">———————— n-048_Cd_114.endf ————————</div>

- `psyche` Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  1.57673E+06 DISSAGREES WITH THE GIVEN Q  1.67150E+06
```

<div align="center">———————— n-048_Cd_115m1.endf ————————</div>

- `fizcon` Non-errors:

  1. These are isomer targets, the energy of the first level one can get to is zero!

```
     WARNING(S)      IN MAT=4853, MF= 3, MT=  4
        Q= 0.00000E+00 MIGHT BE UNREASONABLE              SEQUENCE NUMBER    1

     ERROR(S) FOUND IN MAT=4853, MF=12, MT= 51
        THE ENERGY OF HIGHEST LEVEL MUST BE 0.0000E+00   SEQUENCE NUMBER    2
```

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                DENSITY  3.10313E+02 SHOULD BE  1.10448E+02

                DENSITY  3.09910E+02 SHOULD BE  1.10304E+02
```

   ...

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  3.73690E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

<div align="center">—— n-048_Cd_116.endf ——</div>

- `psyche` Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     AT RESONANCE ENERGY  1.38454E+03 EV. THE GAMMA WIDTH  2.15000E-01 DEVIATES TOO MUC
     ```

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  3.83897E+05 DISSAGREES WITH THE GIVEN Q  5.72900E+05
     ```

<div align="center">—— n-049_In_113.endf ——</div>

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
     ```

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  5.46813E+05 DISSAGREES WITH THE GIVEN Q  4.60756E+05
     ```

<div align="center">—— n-049_In_115.endf ——</div>

- Passed All Checks!

<div align="center">—— n-050_Sn_112.endf ——</div>

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
     ```

<div align="center">—— n-050_Sn_113.endf ——</div>

- `psyche` Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  1.78875E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00

     THE CALCULATED Q  7.63085E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
     ```

<div align="center">53</div>

2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
        DENSITY  3.74122E+01 SHOULD BE  3.22677E+01

        DENSITY  3.73905E+01 SHOULD BE  3.22490E+01
```

...

3. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
            LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
```

4. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
        TOTAL OF    28 POINTS IN ERROR FOR THIS J-STATE

        TOTAL OF    28 POINTS IN ERROR FOR THIS J-STATE
```

...

──────────────────── n-050_Sn_114.endf ────────────────────

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
        DENSITY  7.73880E+01 SHOULD BE  7.60533E+01
```

──────────────────── n-050_Sn_115.endf ────────────────────

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
        DENSITY  2.00500E+01 SHOULD BE  1.95007E+01

        DENSITY  1.60010E+01 SHOULD BE  1.95007E+01

        DENSITY  1.70010E+01 SHOULD BE  9.00060E+00

        DENSITY  8.35750E+00 SHOULD BE  6.42900E+00
```

2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  5.23813E+05 DISSAGREES WITH THE GIVEN Q  2.88364E+05
```

─────────────────── n-050_Sn_116.endf ───────────────────

- `psyche` Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
        AT RESONANCE ENERGY  2.91860E+04 EV. THE GAMMA WIDTH  2.35000E-02 DEVIATES TOO MU(
```

─────────────────── n-050_Sn_117.endf ───────────────────

- `psyche` Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
        AT RESONANCE ENERGY  5.80800E+02 EV. THE GAMMA WIDTH  5.00000E-05 DEVIATES TOO MU(

        AT RESONANCE ENERGY  1.35860E+03 EV. THE GAMMA WIDTH  7.00000E-05 DEVIATES TOO MU(
```

─────────────────── n-050_Sn_118.endf ───────────────────

- Passed All Checks!

─────────────────── n-050_Sn_119.endf ───────────────────

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
            LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
```

─────────────────── n-050_Sn_120.endf ───────────────────

- `fizcon` Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

```
      ERROR(S) FOUND IN MAT=5049, MF= 5, MT= 16
          FOR LF=1 EPMAX FOUND TO BE 8.12146E+05 SHOULD BE 7.66500E+04

      ERROR(S) FOUND IN MAT=5049, MF= 5, MT= 17
    ...
```

- `psyche` Unknown:

55

1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

        AT RESONANCE ENERGY 4.26100E+02 EV. THE GAMMA WIDTH 2.46000E-01 DEVIATES TOO MUC

        AT RESONANCE ENERGY 4.09940E+04 EV. THE GAMMA WIDTH 2.10000E-02 DEVIATES TOO MUC

2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

            LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

            LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

————————————————————— n-050_Sn_122.endf —————————————————————

- `psyche` Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

            LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

            LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

            LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04

————————————————————— n-050_Sn_123.endf —————————————————————

- Passed All Checks!

————————————————————— n-050_Sn_124.endf —————————————————————

- `psyche` Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

        AT RESONANCE ENERGY 6.20000E+01 EV. THE GAMMA WIDTH 2.39000E-01 DEVIATES TOO MUC

————————————————————— n-050_Sn_125.endf —————————————————————

- `psyche` Unknown:

    1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

        THE CALCULATED Q 6.77530E+05 DISSAGREES WITH THE GIVEN Q 0.00000E+00

    2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                  DENSITY  7.72625E+02 SHOULD BE  3.30897E+02

                  DENSITY  7.72613E+02 SHOULD BE  3.30893E+02
```

   . . .

3. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
              LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
```

4. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
        TOTAL OF    26 POINTS IN ERROR FOR THIS J-STATE

        TOTAL OF    26 POINTS IN ERROR FOR THIS J-STATE
```

   . . .

──────────────── n-050_Sn_126.endf ────────────────

- Passed All Checks!

──────────────── n-051_Sb_121.endf ────────────────

- `psyche` Unknown:

1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
              DENSITY  2.86930E+01 SHOULD BE  2.84079E+01

              DENSITY  2.25390E+01 SHOULD BE  2.22060E+01
```

   . . .

2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
              LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
```

──────────────── n-051_Sb_123.endf ────────────────

- `psyche` Unknown:

1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    DENSITY  8.69320E+01 SHOULD BE  9.92214E+01

                    DENSITY  6.80590E+01 SHOULD BE  7.71722E+01
```

   ...

—————————————————————— n-051_Sb_124.endf ——————————————————————

- psyche Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
          THE CALCULATED Q  1.28038E+06 DISSAGREES WITH THE GIVEN Q  1.40906E+06
```

—————————————————————— n-051_Sb_125.endf ——————————————————————

- Passed All Checks!

—————————————————————— n-051_Sb_126.endf ——————————————————————

- psyche Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    DENSITY  2.55102E+01 SHOULD BE  1.45885E+01

                    DENSITY  2.55102E+01 SHOULD BE  1.45885E+01
```

     ...

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
          THE CALCULATED Q  3.66622E+05 DISSAGREES WITH THE GIVEN Q  0.00000E+00

          THE CALCULATED Q  2.61712E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

—————————————————————— n-052_Te_120.endf ——————————————————————

- Passed All Checks!

—————————————————————— n-052_Te_122.endf ——————————————————————

- psyche Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

---

n-052_Te_123.endf

- `psyche` Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     THE CALCULATED Q 1.00921E+06 DISSAGREES WITH THE GIVEN Q 8.34465E+05

---

n-052_Te_124.endf

- Passed All Checks!

---

n-052_Te_125.endf

- Passed All Checks!

---

n-052_Te_126.endf

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     DENSITY 4.00080E+02 SHOULD BE 3.94513E+02

---

n-052_Te_127m1.endf

- Passed All Checks!

---

n-052_Te_128.endf

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

---

n-052_Te_129m1.endf

- Passed All Checks!

---

n-052_Te_130.endf

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    DENSITY  3.29450E+03 SHOULD BE  3.54445E+03

                    DENSITY  2.52960E+03 SHOULD BE  2.46300E+03
```

2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
              LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

              LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

              LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
```

───────────── n-052_Te_132.endf ─────────────

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    DENSITY  2.35382E+03 SHOULD BE  1.88542E+03

                    DENSITY  2.35325E+03 SHOULD BE  1.88496E+03
```

     ...

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
              LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

              LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
```

     ...

───────────── n-053_I_127.endf ─────────────

- Passed All Checks!

───────────── n-053_I_129.endf ─────────────

- `psyche` Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
          AT RESONANCE ENERGY  1.60800E+03 EV. THE GAMMA WIDTH  4.80000E-22 DEVIATES TOO MU(
```

───────────── n-053_I_130.endf ─────────────

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

         DENSITY 2.97547E+01 SHOULD BE 2.20065E+01

         DENSITY 2.97393E+01 SHOULD BE 2.19951E+01

     . . .

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

         THE CALCULATED Q 1.11047E+06 DISSAGREES WITH THE GIVEN Q 0.00000E+00

         THE CALCULATED Q 5.23162E+06 DISSAGREES WITH THE GIVEN Q 0.00000E+00

─────────────────── n-053_I_131.endf ───────────────────

- Passed All Checks!

─────────────────── n-053_I_135.endf ───────────────────

- Passed All Checks!

─────────────────── n-054_Xe_123.endf ───────────────────

- Passed All Checks!

─────────────────── n-054_Xe_124.endf ───────────────────

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

         LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

         THE CALCULATED Q 6.28547E+05 DISSAGREES WITH THE GIVEN Q 4.87204E+05

─────────────────── n-054_Xe_126.endf ───────────────────

- Passed All Checks!

─────────────────── n-054_Xe_128.endf ───────────────────

- Passed All Checks!

─────────── n-054_Xe_129.endf ───────────

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
     ```

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  7.09801E+05 DISSAGREES WITH THE GIVEN Q  5.89955E+05
     ```

─────────── n-054_Xe_130.endf ───────────

- Passed All Checks!

─────────── n-054_Xe_131.endf ───────────

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     DENSITY  7.45390E+01 SHOULD BE  5.96862E+01

     DENSITY  7.44553E+01 SHOULD BE  5.96192E+01
     ```

     ...

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
     ```

  3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  6.28277E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
     ```

─────────── n-054_Xe_132.endf ───────────

- Passed All Checks!

─────────── n-054_Xe_133.endf ───────────

- `psyche` Unknown:

1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

                    LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
```

...

─────────────────── n-054_Xe_134.endf ───────────────────

- `psyche` Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

                    LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
```

─────────────────── n-054_Xe_135.endf ───────────────────

- `psyche` Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

                    LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
```

...

─────────────────── n-054_Xe_136.endf ───────────────────

- `psyche` Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

                    LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

                    LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

                    LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
```

- `psyche` Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  2.88645E+05 DISSAGREES WITH THE GIVEN Q  0.00000E+00

     THE CALCULATED Q  4.54877E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
     ```

  2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     DENSITY  3.65836E+01 SHOULD BE  3.21284E+01

     DENSITY  3.65372E+01 SHOULD BE  3.20877E+01
     ```

     . . .

  3. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
     ```

  4. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     TOTAL OF    22 POINTS IN ERROR FOR THIS J-STATE

     TOTAL OF    22 POINTS IN ERROR FOR THIS J-STATE
     ```

     . . .

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

     LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
     ```

     . . .

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

     LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
     ```

     . . .

---
n-055_Cs_136.endf

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

     LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
     ```

     . . .

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  8.95551E+05 DISSAGREES WITH THE GIVEN Q  8.49462E+05
     ```

---
n-055_Cs_137.endf

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

     LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
     ```

     . . .

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  4.60267E+06 DISSAGREES WITH THE GIVEN Q  4.28139E+06

     THE CALCULATED Q  3.26455E+06 DISSAGREES WITH THE GIVEN Q  3.06421E+06
     ```

65

- **psyche** Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

     LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

     ...

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     THE CALCULATED Q 3.65137E+05 DISSAGREES WITH THE GIVEN Q 3.42466E+05

- **psyche** Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

     LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04

     ...

- **psyche** Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     DENSITY 6.12333E+01 SHOULD BE 5.51071E+01

     DENSITY 6.12264E+01 SHOULD BE 5.51008E+01

     ...

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

                    LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
```

. . .

3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  1.38049E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00

        THE CALCULATED Q  7.89488E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

——————— n-056_Ba_134.endf ———————

- psyche Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

                    LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
```

  . . .

——————— n-056_Ba_135.endf ———————

- psyche Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

                    LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
```

  . . .

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  8.04454E+06 DISSAGREES WITH THE GIVEN Q  9.10739E+06
```

——————— n-056_Ba_136.endf ———————

- psyche Unknown:

1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

    ```
    AT RESONANCE ENERGY  2.96880E+04 EV. THE GAMMA WIDTH  9.40000E-01 DEVIATES TOO MUC
    ```

    ```
    AT RESONANCE ENERGY  3.36340E+04 EV. THE GAMMA WIDTH  9.60000E-01 DEVIATES TOO MUC
    ```

2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

    ```
    LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
    ```

    ```
    LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
    ```

    . . .

3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

    ```
    THE CALCULATED Q  7.93357E+06 DISSAGREES WITH THE GIVEN Q  6.89839E+06
    ```

    ```
    THE CALCULATED Q  5.44491E+06 DISSAGREES WITH THE GIVEN Q  4.41020E+06
    ```

—————————————— n-056_Ba_137.endf ——————————————

- psyche Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

        ```
        LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
        ```

        ```
        LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
        ```

        . . .

—————————————— n-056_Ba_138.endf ——————————————

- psyche Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

        ```
        LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
        ```

—————————————— n-056_Ba_140.endf ——————————————

- Passed All Checks!

68

- **psyche** Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

                        LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

                        LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04

        . . .

- **psyche** Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

                AT RESONANCE ENERGY 8.03520E+03 EV. THE GAMMA WIDTH 6.55111E-01 DEVIATES TOO MUC

    2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

                        LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04

                        LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04

        . . .

- **psyche** Unknown:

    1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

                        DENSITY 1.31524E+02 SHOULD BE 1.08552E+02

                        DENSITY 1.31524E+02 SHOULD BE 1.08552E+02

        . . .

    2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

                        LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

                        LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

69

. . .

3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
THE CALCULATED Q  7.72487E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

--------------------- n-058_Ce_136.endf ---------------------

- psyche Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

  ```
  THE CALCULATED Q  4.18598E+05 DISSAGREES WITH THE GIVEN Q  0.00000E+00

  THE CALCULATED Q  6.72240E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
  ```

  2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

  ```
  DENSITY  5.50370E+01 SHOULD BE  4.86941E+01

  DENSITY  5.50285E+01 SHOULD BE  4.86865E+01
  ```

  . . .

  3. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

  ```
  LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

  LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
  ```

  . . .

  4. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

  ```
  TOTAL OF    37 POINTS IN ERROR FOR THIS J-STATE

  TOTAL OF    37 POINTS IN ERROR FOR THIS J-STATE
  ```

--------------------- n-058_Ce_138.endf ---------------------

- psyche Unknown:

70

1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

   ```
   THE CALCULATED Q  5.93485E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
   ```

2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

   ```
   DENSITY  9.87715E+01 SHOULD BE  8.73882E+01

   DENSITY  9.87713E+01 SHOULD BE  8.73880E+01
   ```

   ...

3. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

   ```
   LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

   LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
   ```

   ...

4. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

   ```
   TOTAL OF    48 POINTS IN ERROR FOR THIS J-STATE

   TOTAL OF    48 POINTS IN ERROR FOR THIS J-STATE
   ```

_____ n-058_Ce_139.endf _____

- `psyche` Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  1.07250E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00

     THE CALCULATED Q  6.57654E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
     ```

  2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     DENSITY  4.89399E+01 SHOULD BE  3.64061E+01

     DENSITY  4.88981E+01 SHOULD BE  3.63750E+01
     ```

. . .

3. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                        LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

                        LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
```

. . .

4. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
            TOTAL OF     22 POINTS IN ERROR FOR THIS J-STATE

            TOTAL OF     22 POINTS IN ERROR FOR THIS J-STATE
```

. . .

n-058_Ce_140.endf

- psyche Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
            AT RESONANCE ENERGY   4.93900E+04 EV. THE GAMMA WIDTH  1.37000E-01 DEVIATES TOO MU
```

    2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                        LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04

                        LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

                        LIES OUTSIDE LIMITS 1.00000E-04 TO 8.00000E-04
```

n-058_Ce_141.endf

- psyche Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                        LIES OUTSIDE LIMITS 1.00000E-04 TO 6.00000E-04
```

```
                    LIES OUTSIDE LIMITS 1.00000E-04 TO 6.00000E-04
```

    ...

———————————————————— n-058_Ce_142.endf ————————————————————

- **psyche** Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                 LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

                 LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
         THE CALCULATED Q  9.83873E+05 DISSAGREES WITH THE GIVEN Q  1.31609E+06

         THE CALCULATED Q  4.80613E+06 DISSAGREES WITH THE GIVEN Q  5.14443E+06

         THE CALCULATED Q  5.62406E+06 DISSAGREES WITH THE GIVEN Q  6.04420E+06
```

———————————————————— n-058_Ce_143.endf ————————————————————

- **psyche** Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
         THE CALCULATED Q  8.17936E+05 DISSAGREES WITH THE GIVEN Q  8.78000E+05

         THE CALCULATED Q  7.31780E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

  2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
             DENSITY  6.71840E+01 SHOULD BE  5.17682E+01

             DENSITY  6.71796E+01 SHOULD BE  5.17649E+01
```

    ...

  3. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                              LIES OUTSIDE LIMITS 1.00000E-04 TO 6.00000E-04

                              LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

. . .

4. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    TOTAL OF    22 POINTS IN ERROR FOR THIS J-STATE

                    TOTAL OF    22 POINTS IN ERROR FOR THIS J-STATE
```

. . .

---

n-058_Ce_144.endf

- psyche Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

  ```
                            LIES OUTSIDE LIMITS 1.00000E-04 TO 6.00000E-04

                            LIES OUTSIDE LIMITS 1.00000E-04 TO 6.00000E-04
  ```

  . . .

---

n-059_Pr_141.endf

- psyche Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

  ```
          THE CALCULATED Q  6.21440E+06 DISSAGREES WITH THE GIVEN Q  5.84200E+06

          THE CALCULATED Q  6.11027E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
  ```

  2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

  ```
                  DENSITY  1.97297E+02 SHOULD BE  1.79113E+02

                  DENSITY  1.97036E+02 SHOULD BE  1.78875E+02
  ```

  . . .

3. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
   AT RESONANCE ENERGY  3.76200E+03 EV. THE GAMMA WIDTH  1.60000E-02 DEVIATES TOO MUC

   AT RESONANCE ENERGY  4.62000E+03 EV. THE GAMMA WIDTH  2.30000E-02 DEVIATES TOO MUC

   AT RESONANCE ENERGY  3.90100E+03 EV. THE GAMMA WIDTH  2.10000E-02 DEVIATES TOO MUC
```

4. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
           LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04

           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

   . . .

5. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
   TOTAL OF    48 POINTS IN ERROR FOR THIS J-STATE

   TOTAL OF    48 POINTS IN ERROR FOR THIS J-STATE
```

   . . .

─────────────── n-059_Pr_142.endf ───────────────

- `psyche` Unknown:

1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
       DENSITY  5.06220E+01 SHOULD BE  4.16509E+01

       DENSITY  5.06219E+01 SHOULD BE  4.16509E+01
```

   . . .

2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
   THE CALCULATED Q  6.91524E+06 DISSAGREES WITH THE GIVEN Q  7.35200E+06

   THE CALCULATED Q  1.43184E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00

   THE CALCULATED Q  8.63822E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     LIES OUTSIDE LIMITS 1.00000E-04 TO 6.00000E-04
     ```

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     DENSITY  6.31285E+02 SHOULD BE  5.66436E+02

     DENSITY  6.30852E+02 SHOULD BE  5.66047E+02
     ```

     . . .

  2. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     AT RESONANCE ENERGY  1.36200E+04 EV. THE GAMMA WIDTH  2.15000E-01 DEVIATES TOO MUC
     ```

  3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  6.63815E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
     ```

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     DENSITY  7.42566E+01 SHOULD BE  5.35703E+01

     DENSITY  7.42066E+01 SHOULD BE  5.35343E+01
     ```

     . . .

  2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                TOTAL OF    61 POINTS IN ERROR FOR THIS J-STATE

                TOTAL OF    61 POINTS IN ERROR FOR THIS J-STATE
```

  . . .

3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  5.55186E+05 DISSAGREES WITH THE GIVEN Q  5.21000E+05

        THE CALCULATED Q  9.78396E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

————————————————n-060_Nd_144.endf ————————————————

- psyche Unknown:

    1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
            DENSITY  2.44243E+02 SHOULD BE  2.21306E+02

            DENSITY  2.44233E+02 SHOULD BE  2.21296E+02
```

      . . .

    2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
              LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

              LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

      . . .

    3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  7.35074E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

————————————————n-060_Nd_145.endf ————————————————

- psyche Unknown:

    1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

77

```
                    DENSITY  4.22683E+01 SHOULD BE  2.37064E+01

                    DENSITY  4.22127E+01 SHOULD BE  2.36752E+01
```

...

2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  9.11328E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

——————————————————— n-060_Nd_146.endf ———————————————————

- psyche Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    DENSITY  1.28664E+02 SHOULD BE  1.03580E+02

                    DENSITY  1.28572E+02 SHOULD BE  1.03506E+02
```

...

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
            LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

            LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

...

  3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  1.59069E+06 DISSAGREES WITH THE GIVEN Q  1.18200E+06

        THE CALCULATED Q  6.39681E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

——————————————————— n-060_Nd_147.endf ———————————————————

- psyche Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                       DENSITY  1.22563E+01 SHOULD BE  8.12152E+00

                       DENSITY  1.22559E+01 SHOULD BE  8.12126E+00
```

  . . .

2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                  LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

                  LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

  . . .

3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  7.92823E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

———————————— n-060_Nd_148.endf ————————————

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    DENSITY  8.86628E+01 SHOULD BE  8.08777E+01

                    DENSITY  8.86602E+01 SHOULD BE  8.08753E+01
```

  . . .

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                  LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

                  LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

  . . .

  3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  6.34498E+05 DISSAGREES WITH THE GIVEN Q  5.98000E+05
```

THE CALCULATED Q 5.37153E+06 DISSAGREES WITH THE GIVEN Q 0.00000E+00

─────────────────────────── n-060_Nd_150.endf ───────────────────────────

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

                    DENSITY 8.98113E+01 SHOULD BE 8.22506E+01

                    DENSITY 8.97852E+01 SHOULD BE 8.22266E+01

      ...

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

                    LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

                    LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

                    LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

  3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

                    THE CALCULATED Q 3.96884E+06 DISSAGREES WITH THE GIVEN Q 0.00000E+00

─────────────────────────── n-061_Pm_147.endf ───────────────────────────

- Passed All Checks!

─────────────────────────── n-061_Pm_148.endf ───────────────────────────

- Passed All Checks!

─────────────────────────── n-061_Pm_148m1.endf ───────────────────────────

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

                    LIES OUTSIDE LIMITS 1.00000E-04 TO 6.00000E-04

─────────────────────────── n-061_Pm_149.endf ───────────────────────────

- Passed All Checks!

80

- **psyche** Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     DENSITY  7.22482E+00 SHOULD BE  6.76706E+00

     DENSITY  7.21478E+00 SHOULD BE  6.75766E+00
     ```

     . . .

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

     LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
     ```

     . . .

- **psyche** Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     DENSITY  3.29133E+02 SHOULD BE  2.83226E+02

     DENSITY  3.29098E+02 SHOULD BE  2.83196E+02
     ```

     . . .

  2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     TOTAL OF    52 POINTS IN ERROR FOR THIS J-STATE

     TOTAL OF    52 POINTS IN ERROR FOR THIS J-STATE
     ```

  3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  7.85277E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
     ```

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
                    DENSITY  1.31276E+01 SHOULD BE  7.79438E+00

                    DENSITY  1.31274E+01 SHOULD BE  7.79424E+00
     ```

     . . .

  2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
              TOTAL OF    46 POINTS IN ERROR FOR THIS J-STATE

              TOTAL OF    46 POINTS IN ERROR FOR THIS J-STATE
     ```

     . . .

  3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
          THE CALCULATED Q  6.24395E+05 DISSAGREES WITH THE GIVEN Q  0.00000E+00

          THE CALCULATED Q  1.01181E+07 DISSAGREES WITH THE GIVEN Q  0.00000E+00
     ```

_____ n-062_Sm_148.endf _____

- `psyche` Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
          THE CALCULATED Q  7.77955E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
     ```

  2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
                    DENSITY  4.80382E+01 SHOULD BE  4.13379E+01

                    DENSITY  4.80313E+01 SHOULD BE  4.13320E+01
     ```

     . . .

  3. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

                    LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04
```

    . . .

4. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
        TOTAL OF    53 POINTS IN ERROR FOR THIS J-STATE

        TOTAL OF    53 POINTS IN ERROR FOR THIS J-STATE
```

_____ n-062_Sm_149.endf _____

- psyche Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
        DENSITY  5.07788E+00 SHOULD BE  3.01494E+00

        DENSITY  5.07415E+00 SHOULD BE  3.01272E+00
```

    . . .

  2. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
        AT RESONANCE ENERGY  2.44300E+02 EV. THE GAMMA WIDTH  1.05000E-02 DEVIATES TOO MU
```

  3. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
        TOTAL OF    28 POINTS IN ERROR FOR THIS J-STATE

        TOTAL OF    28 POINTS IN ERROR FOR THIS J-STATE
```

    . . .

  4. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  9.40778E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

_____ n-062_Sm_150.endf _____

- psyche Unknown:

1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

   ```
   THE CALCULATED Q  1.52744E+06 DISSAGREES WITH THE GIVEN Q  1.45000E+06

   THE CALCULATED Q  6.89237E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
   ```

2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

   ```
   DENSITY  2.71014E+01 SHOULD BE  2.49221E+01

   DENSITY  2.70783E+01 SHOULD BE  2.49008E+01
   ```

   ...

3. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

   ```
   LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

   LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04
   ```

   ...

4. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

   ```
   TOTAL OF    51 POINTS IN ERROR FOR THIS J-STATE

   TOTAL OF    51 POINTS IN ERROR FOR THIS J-STATE
   ```

──────────────── n-062_Sm_151.endf ────────────────

- psyche Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  1.22306E+06 DISSAGREES WITH THE GIVEN Q  1.14500E+06

     THE CALCULATED Q  8.51680E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
     ```

  2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    DENSITY  2.42766E+00 SHOULD BE  1.90033E+00

                    DENSITY  2.42763E+00 SHOULD BE  1.90031E+00
```

   ...

3. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
            TOTAL OF    32 POINTS IN ERROR FOR THIS J-STATE

            TOTAL OF    32 POINTS IN ERROR FOR THIS J-STATE
```

   ...

4. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                 LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

                 LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

   ...

────────────────────────── n-062_Sm_152.endf ──────────────────────────

- `psyche` Unknown:

   1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
         THE CALCULATED Q  5.20622E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

   2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                 DENSITY  2.31071E+01 SHOULD BE  2.12904E+01

                 DENSITY  2.30917E+01 SHOULD BE  2.12762E+01
```

   ...

   3. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                 LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04
```

```
                    LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04
```

...

4. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
          TOTAL OF    48 POINTS IN ERROR FOR THIS J-STATE

          TOTAL OF    48 POINTS IN ERROR FOR THIS J-STATE
```

———————————————— n-062_Sm_153.endf ————————————————

- psyche Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
              DENSITY  4.01545E+00 SHOULD BE  2.62783E+00

              DENSITY  4.01493E+00 SHOULD BE  2.62749E+00
```

     ...

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

                LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

     ...

  3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
          THE CALCULATED Q  6.84561E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

———————————————— n-062_Sm_154.endf ————————————————

- psyche Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
          THE CALCULATED Q  4.05609E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
DENSITY  5.56092E+01 SHOULD BE  5.10133E+01

DENSITY  5.55788E+01 SHOULD BE  5.09855E+01
```

. . .

3. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04

LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04
```

. . .

4. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
TOTAL OF    45 POINTS IN ERROR FOR THIS J-STATE

TOTAL OF    45 POINTS IN ERROR FOR THIS J-STATE
```

———————————————— n-063_Eu_151.endf ————————————————

- psyche Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04

LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04
```

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
THE CALCULATED Q  5.22473E+05 DISSAGREES WITH THE GIVEN Q  7.06860E+05
```

———————————————— n-063_Eu_152.endf ————————————————

- psyche Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    DENSITY  3.70000E+00 SHOULD BE  3.58396E+00

                    DENSITY  8.93000E+00 SHOULD BE  9.50000E-01
```

   . . .

2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                 LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04

                 LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04

                 LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04

                 LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04
```

3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
            THE CALCULATED Q  1.46619E+06 DISSAGREES WITH THE GIVEN Q  1.56409E+06

            THE CALCULATED Q  2.51405E+06 DISSAGREES WITH THE GIVEN Q  2.65945E+06
```

────────────────── n-063_Eu_153.endf ──────────────────

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    DENSITY  2.00303E+00 SHOULD BE  1.88918E+00

                    DENSITY  2.00170E+00 SHOULD BE  1.88793E+00
```

   . . .

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
            THE CALCULATED Q  3.56498E+05 DISSAGREES WITH THE GIVEN Q  2.74000E+05
```

- `NJOY99` Errors:

  1. A cummulative probability table decreases, indicating a goof in a spectrum

```
    energy distributions
        decreasing cumm. prob for (n,n*c) at    1.600000E+01 -> 3.989600E+00
    energy distributions
        decreasing cumm. prob for (n,n*c) at    1.600000E+01 -> 4.274500E+00
    ...
        decreasing cumm. prob for (n,n*c) at    2.000000E+01 -> 9.078600E+00
```

2. An unidentified mismatch in a photon production sum

```
photon production sum
    mismatch at  1.000000E-11  gpd=  7.685555E-14  sum=  0.000000E+00
```

─────────────────────────── n-063_Eu_154.endf ───────────────────────────

- psyche Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  1.65433E+06 DISSAGREES WITH THE GIVEN Q  1.49950E+06
     ```

─────────────────────────── n-063_Eu_155.endf ───────────────────────────

- Passed All Checks!

─────────────────────────── n-063_Eu_156.endf ───────────────────────────

- psyche Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  5.46364E+05 DISSAGREES WITH THE GIVEN Q  6.74684E+04
     ```

─────────────────────────── n-063_Eu_157.endf ───────────────────────────

- psyche Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  4.35808E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
     ```

  2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     DENSITY  5.62522E+00 SHOULD BE  5.30022E+00

     DENSITY  5.62491E+00 SHOULD BE  5.29992E+00
     ```

     ...

3. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
          TOTAL OF    27 POINTS IN ERROR FOR THIS J-STATE

          TOTAL OF    27 POINTS IN ERROR FOR THIS J-STATE
```

...

4. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
              LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

              LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

...

―――――――――――――― n-064_Gd_152.endf ――――――――――――――

- psyche Unknown:

    1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

    ```
            THE CALCULATED Q  8.13818E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
    ```

    2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

    ```
              DENSITY  7.28460E+00 SHOULD BE  6.81985E+00

              DENSITY  7.28047E+00 SHOULD BE  6.81598E+00
    ```

    ...

    3. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

    ```
              LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

              LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04
    ```

    ...

    4. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    TOTAL OF    47 POINTS IN ERROR FOR THIS J-STATE

                    TOTAL OF    47 POINTS IN ERROR FOR THIS J-STATE
```

_____ n-064_Gd_153.endf _____

- psyche Unknown:

    1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

    ```
        THE CALCULATED Q  1.72800E+06 DISSAGREES WITH THE GIVEN Q  1.82900E+06

        THE CALCULATED Q  1.17297E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00

        THE CALCULATED Q  9.60834E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
    ```

    2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

    ```
            DENSITY  2.04730E+00 SHOULD BE  1.73891E+00

            DENSITY  2.04710E+00 SHOULD BE  1.73873E+00
    ```

    . . .

    3. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

    ```
            LIES OUTSIDE LIMITS 1.00000E-04 TO 6.00000E-04
    ```

    4. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

    ```
        TOTAL OF    48 POINTS IN ERROR FOR THIS J-STATE

        TOTAL OF    48 POINTS IN ERROR FOR THIS J-STATE
    ```

    . . .

_____ n-064_Gd_154.endf _____

- psyche Unknown:

    1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    DENSITY  7.34601E+00 SHOULD BE  6.86573E+00

                    DENSITY  7.34271E+00 SHOULD BE  6.86264E+00
```

...

2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                   LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

                   LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04
```

...

3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
            THE CALCULATED Q  7.66436E+05 DISSAGREES WITH THE GIVEN Q  9.20000E+05

            THE CALCULATED Q  6.43575E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

────────────────────────── n-064_Gd_155.endf ──────────────────────────

- psyche Unknown:

1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
            THE CALCULATED Q  3.13270E+05 DISSAGREES WITH THE GIVEN Q  0.00000E+00

            THE CALCULATED Q  8.21298E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    DENSITY  2.47362E+00 SHOULD BE  2.10101E+00

                    DENSITY  2.47247E+00 SHOULD BE  2.10003E+00
```

...

3. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    TOTAL OF    32 POINTS IN ERROR FOR THIS J-STATE
```

```
                TOTAL OF    32 POINTS IN ERROR FOR THIS J-STATE
```

...

4. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                  LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04

                  LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04
```

...

------------------------ n-064_Gd_156.endf ------------------------

- psyche Unknown:

1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
            DENSITY  1.53450E+01 SHOULD BE  1.43417E+01

            DENSITY  1.53234E+01 SHOULD BE  1.43215E+01
```

...

2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                  LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04

                  LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04
```

...

3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  5.59622E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

------------------------ n-064_Gd_157.endf ------------------------

- psyche Unknown:

1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                   DENSITY  7.65824E+00 SHOULD BE  6.43499E+00

                   DENSITY  7.65598E+00 SHOULD BE  6.43309E+00
```

  . . .

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                   LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04

                   LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04
```

  . . .

  3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
           THE CALCULATED Q  7.26248E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

————————————————————— n-064_Gd_158.endf —————————————————————

- `psyche` Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
           THE CALCULATED Q  5.06965E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

  2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                   DENSITY  4.43339E+01 SHOULD BE  4.12614E+01

                   DENSITY  4.43324E+01 SHOULD BE  4.12600E+01
```

  . . .

  3. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                   LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04

                   LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04
```

  . . .

4. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
TOTAL OF    37 POINTS IN ERROR FOR THIS J-STATE

TOTAL OF    37 POINTS IN ERROR FOR THIS J-STATE
```

n-064_Gd_160.endf

- `psyche` Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

  ```
  THE CALCULATED Q  4.43167E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
  ```

  2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

  ```
  DENSITY  9.02078E+01 SHOULD BE  8.35409E+01

  DENSITY  9.01535E+01 SHOULD BE  8.34906E+01
  ```

  ...

  3. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

  ```
  LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04

  LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04
  ```

  ...

  4. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

  ```
  TOTAL OF    33 POINTS IN ERROR FOR THIS J-STATE

  TOTAL OF    33 POINTS IN ERROR FOR THIS J-STATE
  ```

n-065_Tb_159.endf

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

95

```
                    LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04

                    LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04
```

   ...

────────────────────────── n-065_Tb_160.endf ──────────────────────────

- **psyche** Unknown:

   1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  1.25199E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00

        THE CALCULATED Q  7.31934E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

   2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
            DENSITY  1.66414E+00 SHOULD BE  1.50236E+00

            DENSITY  1.66413E+00 SHOULD BE  1.50235E+00
```

   ...

   3. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
        TOTAL OF    30 POINTS IN ERROR FOR THIS J-STATE

        TOTAL OF    30 POINTS IN ERROR FOR THIS J-STATE
```

   ...

   4. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
            LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

            LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

   ...

────────────────────────── n-066_Dy_156.endf ──────────────────────────

- **psyche** Unknown:

1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

   ```
   DENSITY  2.91504E+00 SHOULD BE  2.69960E+00

   DENSITY  2.91070E+00 SHOULD BE  2.69558E+00
   ```

   . . .

2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

   ```
   TOTAL OF    60 POINTS IN ERROR FOR THIS J-STATE

   TOTAL OF    60 POINTS IN ERROR FOR THIS J-STATE
   ```

3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

   ```
   THE CALCULATED Q  1.66791E+06 DISSAGREES WITH THE GIVEN Q  1.75800E+06

   THE CALCULATED Q  4.33248E+05 DISSAGREES WITH THE GIVEN Q  0.00000E+00

   THE CALCULATED Q  8.07809E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
   ```

   ———————————— n-066_Dy_158.endf ————————————

- `psyche` Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  8.10186E+05 DISSAGREES WITH THE GIVEN Q  8.74000E+05

     THE CALCULATED Q  7.33656E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
     ```

  2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     DENSITY  7.62373E+00 SHOULD BE  7.14897E+00

     DENSITY  7.61199E+00 SHOULD BE  7.13796E+00
     ```

     . . .

  3. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

97

```
                    LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04

                    LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04
```

   . . .

4. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
          TOTAL OF    35 POINTS IN ERROR FOR THIS J-STATE

          TOTAL OF    35 POINTS IN ERROR FOR THIS J-STATE
```

────────────────── n-066_Dy_160.endf ──────────────────

- `psyche` Unknown:

   1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
               DENSITY  1.54784E+01 SHOULD BE  1.36945E+01

               DENSITY  1.54659E+01 SHOULD BE  1.36834E+01
```

   . . .

   2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04

                    LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04
```

   . . .

   3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
          THE CALCULATED Q  5.83123E+05 DISSAGREES WITH THE GIVEN Q  4.38000E+05

          THE CALCULATED Q  6.89903E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

────────────────── n-066_Dy_161.endf ──────────────────

- `psyche` Unknown:

   1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
              DENSITY  3.30380E+00 SHOULD BE  2.58616E+00

              DENSITY  3.30137E+00 SHOULD BE  2.58426E+00
```

   ...

2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
         THE CALCULATED Q  4.23498E+05 DISSAGREES WITH THE GIVEN Q  3.44000E+05

         THE CALCULATED Q  8.41780E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

────────────────── n-066_Dy_162.endf ──────────────────

- **psyche** Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
              DENSITY  3.45317E+01 SHOULD BE  3.11247E+01

              DENSITY  3.44951E+01 SHOULD BE  3.10917E+01
```

   ...

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
         THE CALCULATED Q  5.98372E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

────────────────── n-066_Dy_163.endf ──────────────────

- **psyche** Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
              DENSITY  1.31394E+01 SHOULD BE  1.07319E+01

              DENSITY  1.31195E+01 SHOULD BE  1.07156E+01
```

   ...

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
                THE CALCULATED Q  7.43345E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

—————————————————— n-066_Dy_164.endf ——————————————————

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                DENSITY  7.95575E+01 SHOULD BE  7.11295E+01

                DENSITY  7.94270E+01 SHOULD BE  7.10129E+01
```

     . . .

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
                THE CALCULATED Q  5.34830E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

—————————————————— n-067_Ho_165.endf ——————————————————

- Passed All Checks!

—————————————————— n-067_Ho_166m1.endf ——————————————————

- `fizcon` Non-errors:

  1. These are isomer targets, the energy of the first level one can get to is zero!

```
        WARNING(S)     IN MAT=6729, MF= 3, MT=  4
            Q= 0.00000E+00 MIGHT BE UNREASONABLE            SEQUENCE NUMBER     1

        ERROR(S) FOUND IN MAT=6729, MF=12, MT= 51
            THE ENERGY OF HIGHEST LEVEL MUST BE 0.0000E+00   SEQUENCE NUMBER     2
```

- `psyche` Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
                THE CALCULATED Q  8.00379E+05 DISSAGREES WITH THE GIVEN Q  0.00000E+00

                THE CALCULATED Q  7.42386E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

  2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                  DENSITY  9.76056E+00 SHOULD BE  7.51796E+00

                  DENSITY  9.76002E+00 SHOULD BE  7.51754E+00
```

...

3. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
        TOTAL OF    36 POINTS IN ERROR FOR THIS J-STATE

        TOTAL OF    36 POINTS IN ERROR FOR THIS J-STATE
```

...

4. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
            LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04

            LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04
```

...

──────────────── n-068_Er_162.endf ────────────────

- `psyche` Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  1.79012E+06 DISSAGREES WITH THE GIVEN Q  1.64791E+06

        THE CALCULATED Q  5.83051E+05 DISSAGREES WITH THE GIVEN Q  4.86339E+05
```

──────────────── n-068_Er_164.endf ────────────────

- Passed All Checks!

──────────────── n-068_Er_166.endf ────────────────

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
            LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04
```

101

2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
THE CALCULATED Q  9.54811E+05 DISSAGREES WITH THE GIVEN Q  8.30908E+05
```

──────────────── n-068_Er_167.endf ────────────────

• `psyche` Unknown:

1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04
```

```
LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04
```

──────────────── n-068_Er_168.endf ────────────────

• Passed All Checks!

──────────────── n-068_Er_170.endf ────────────────

• `psyche` Unknown:

1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

```
LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

...

2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
THE CALCULATED Q  5.83525E+06 DISSAGREES WITH THE GIVEN Q  5.46928E+06
```

──────────────── n-069_Tm_168.endf ────────────────

• `psyche` Unknown:

1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
LIES OUTSIDE LIMITS 1.00000E-04 TO 6.00000E-04
```

2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
                THE CALCULATED Q  9.91936E+05 DISSAGREES WITH THE GIVEN Q  1.24500E+06
```

───────────────────────── n-069_Tm_169.endf ─────────────────────────

- psyche Unknown:

    1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                DENSITY  9.74235E+00 SHOULD BE  9.49138E+00

                DENSITY  9.74154E+00 SHOULD BE  9.49059E+00
```

    ...

    2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
                THE CALCULATED Q  1.03100E+06 DISSAGREES WITH THE GIVEN Q  1.20000E+06

                THE CALCULATED Q  8.71502E+05 DISSAGREES WITH THE GIVEN Q  6.96000E+05
```

───────────────────────── n-069_Tm_170.endf ─────────────────────────

- psyche Unknown:

    1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
                THE CALCULATED Q  7.43248E+05 DISSAGREES WITH THE GIVEN Q  8.51000E+05

                THE CALCULATED Q  1.54363E+06 DISSAGREES WITH THE GIVEN Q  1.14600E+06
```

───────────────────────── n-071_Lu_175.endf ─────────────────────────

- psyche Unknown:

    1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
                THE CALCULATED Q  2.76583E+05 DISSAGREES WITH THE GIVEN Q  3.12500E+05
```

───────────────────────── n-071_Lu_176.endf ─────────────────────────

- psyche Unknown:

    1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
THE CALCULATED Q  1.06155E+06 DISSAGREES WITH THE GIVEN Q  7.62500E+05
```

- **fizcon** Errors:

    1. Outgoing energy E' not energetically allow: E' .le. E-Q.

        ```
        ERROR(S) FOUND IN MAT=7225, MF= 5, MT= 16
            FOR LF=1 EPMAX FOUND TO BE 7.50000E+05 SHOULD BE 4.97700E+04
            FOR LF=1 EPMAX FOUND TO BE 7.50000E+05 SHOULD BE 4.18320E+05
            FOR LF=1 EPMAX FOUND TO BE 1.75000E+06 SHOULD BE 1.41832E+06
        ```
        ...

- **psyche** Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

        ```
        LIES OUTSIDE LIMITS 1.00000E-04 TO 6.00000E-04
        ```

- **fizcon** Errors:

    1. Outgoing energy E' not energetically allow: E' .le. E-Q.

        ```
        ERROR(S) FOUND IN MAT=7231, MF= 5, MT= 16
            FOR LF=1 EPMAX FOUND TO BE 1.25000E+06 SHOULD BE 4.63800E+04
            FOR LF=1 EPMAX FOUND TO BE 1.25000E+06 SHOULD BE 9.11320E+05
            FOR LF=1 EPMAX FOUND TO BE 2.25000E+06 SHOULD BE 1.91132E+06
        ```
        ...

- **fizcon** Errors:

    1. Outgoing energy E' not energetically allow: E' .le. E-Q.

        ```
        ERROR(S) FOUND IN MAT=7234, MF= 5, MT= 16
            FOR LF=1 EPMAX FOUND TO BE 7.50000E+05 SHOULD BE 3.63800E+04
            FOR LF=1 EPMAX FOUND TO BE 7.50000E+05 SHOULD BE 6.19320E+05
            FOR LF=1 EPMAX FOUND TO BE 1.75000E+06 SHOULD BE 1.61932E+06
        ```
        ...

- **psyche** Unknown:

1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  3.19958E+05 DISSAGREES WITH THE GIVEN Q  2.85470E+05
```

_____ n-072_Hf_178.endf _____

- `fizcon` Errors:

    1. Outgoing energy E' not energetically allow: E' .le. E-Q.

    ```
    ERROR(S) FOUND IN MAT=7237, MF= 5, MT= 16
        FOR LF=1 EPMAX FOUND TO BE 7.50000E+05 SHOULD BE 4.32400E+04
        FOR LF=1 EPMAX FOUND TO BE 7.50000E+05 SHOULD BE 3.74320E+05
        FOR LF=1 EPMAX FOUND TO BE 1.75000E+06 SHOULD BE 1.37432E+06
    ...
    ```

_____ n-072_Hf_179.endf _____

- `fizcon` Errors:

    1. Outgoing energy E' not energetically allow: E' .le. E-Q.

    ```
    ERROR(S) FOUND IN MAT=7240, MF= 5, MT= 16
        FOR LF=1 EPMAX FOUND TO BE 1.25000E+06 SHOULD BE 3.43900E+04
        FOR LF=1 EPMAX FOUND TO BE 1.25000E+06 SHOULD BE 9.00320E+05
        FOR LF=1 EPMAX FOUND TO BE 2.25000E+06 SHOULD BE 1.90032E+06
    ...
    ```

_____ n-072_Hf_180.endf _____

- `fizcon` Errors:

    1. Outgoing energy E' not energetically allow: E' .le. E-Q.

    ```
    ERROR(S) FOUND IN MAT=7243, MF= 5, MT= 16
        FOR LF=1 EPMAX FOUND TO BE 7.50000E+05 SHOULD BE 4.14200E+04
        FOR LF=1 EPMAX FOUND TO BE 7.50000E+05 SHOULD BE 6.12320E+05
        FOR LF=1 EPMAX FOUND TO BE 1.75000E+06 SHOULD BE 1.61232E+06
    ...
    ```

_____ n-073_Ta_180.endf _____

- `NJOY99` Errors:

    1. Outgoing energy E' not energetically allow: E' .le. E-Q.

```
      energy distributions
         ep.gt.epmax 4.944413E+00 with q.lt.0 for (n,n*c) at e  5.000000E+00 -> 5.000000E+00
      energy distributions
         ep.gt.epmax 5.933296E+00 with q.lt.0 for (n,n*c) at e  6.000000E+00 -> 6.000000E+00
      ...
         ep.gt.epmax 1.938209E+01 with q.lt.0 for (n,n*c) at e  1.960000E+01 -> 1.950000E+01
```

──────────────────────── n-073_Ta_181.endf ────────────────────────

- `psyche` Unknown:

    1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
               DENSITY  7.40600E+00 SHOULD BE  6.50922E+00

               DENSITY  7.40600E+00 SHOULD BE  6.50922E+00
```

    ...

──────────────────────── n-073_Ta_182.endf ────────────────────────

- `psyche` Unknown:

    1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
           THE CALCULATED Q  8.45450E+06 DISSAGREES WITH THE GIVEN Q -8.29400E+06
```


──────────────────────── n-074_W_180.endf ────────────────────────

- `checkr` Non-errors:

    1. CHECKR can't handle lumped covariances well.

```
      ERROR(S) FOUND IN MAT=7425, MF=33, MT= 28
         MTL=854 IS ASSIGNED OUT OF ORDER852                SEQUENCE NUMBER    1
```

- `fizcon` Non-errors:

    1. Cross-correlations with threshold reactions, so covariance doesn't start at 10e-5 eV, FIZCON bug!

```
      ERROR(S) FOUND IN MAT=7425, MF=33, MT=102
         ENERGY INCORRECT                               SEQUENCE NUMBER   493
             EXPECT  1.00000E-05, FIND  3.57170E+06
```

    2. Threshold reaction, so covariance doesn't start at 10e-5 eV, FIZCON bug!

```
ERROR(S) FOUND IN MAT=7425, MF=33, MT= 17
    ENERGY INCORRECT                              SEQUENCE NUMBER    265
        EXPECT  1.00000E-05, FIND  3.57170E+06

...
```

- `psyche` Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    LIES OUTSIDE LIMITS 1.00000E-04 TO 6.00000E-04
```

<div align="center">———————————— n-074_W_182.endf ————————————</div>

- `checkr` Non-errors:

    1. CHECKR can't handle lumped covariances well.

```
ERROR(S) FOUND IN MAT=7431, MF=33, MT= 28
    MTL=854 IS ASSIGNED OUT OF ORDER852            SEQUENCE NUMBER      1
```

- `fizcon` Non-errors:

    1. Cross-correlations with threshold reactions, so covariance doesn't start at 10e-5 eV, FIZCON bug!

```
ERROR(S) FOUND IN MAT=7431, MF=33, MT=  2
    ENERGY INCORRECT                              SEQUENCE NUMBER    159
        EXPECT  1.00000E-05, FIND  4.50000E+03
    ENERGY INCORRECT                              SEQUENCE NUMBER    250
...
```

    2. Threshold reaction, so covariance doesn't start at 10e-5 eV, FIZCON bug!

```
ERROR(S) FOUND IN MAT=7431, MF=33, MT= 17
    ENERGY INCORRECT                              SEQUENCE NUMBER    100
        EXPECT  1.00000E-05, FIND  4.50000E+03
    ENERGY INCORRECT                              SEQUENCE NUMBER    191
...
```

- `psyche` Unknown:

    1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    DENSITY  2.99573E+01 SHOULD BE  2.85198E+01

                    DENSITY  2.96953E+01 SHOULD BE  2.82710E+01
```

   . . .

- **fudge** Non-errors:

   1. GANDR gave this guy huge uncertainties, they are correct, but the evaluations could be better

   ```
   n-074_W_182.endf: WARNING: variance too big for MF/MT=33,851, index 4. 4.460310e+02 > 1.000

   n-074_W_182.endf: WARNING: variance too big for MF/MT=33,851, index 5. 1.189090e+03 > 1.000
   ```

———————————————————— n-074_W_183.endf ————————————————————

- **checkr** Non-errors:

   1. CHECKR can't handle lumped covariances well.

   ```
       ERROR(S) FOUND IN MAT=7434, MF=33, MT= 28
           MTL=854 IS ASSIGNED OUT OF ORDER852            SEQUENCE NUMBER    1
   ```

- **fizcon** Non-errors:

   1. Cross-correlations with threshold reactions, so covariance doesn't start at 10e-5 eV, FIZCON bug!

   ```
       ERROR(S) FOUND IN MAT=7434, MF=33, MT=  2
           ENERGY INCORRECT                              SEQUENCE NUMBER   166
               EXPECT  1.00000E-05, FIND  2.20000E+03
           ENERGY INCORRECT                              SEQUENCE NUMBER   260
   ```
   . . .

   2. Threshold reaction, so covariance doesn't start at 10e-5 eV, FIZCON bug!

   ```
       ERROR(S) FOUND IN MAT=7434, MF=33, MT= 17
           ENERGY INCORRECT                              SEQUENCE NUMBER   105
               EXPECT  1.00000E-05, FIND  2.20000E+03
           ENERGY INCORRECT                              SEQUENCE NUMBER   199
   ```
   . . .

- **psyche** Unknown:

   1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                  DENSITY  1.67866E+01 SHOULD BE  1.62780E+01

                  DENSITY  1.67110E+01 SHOULD BE  1.62049E+01
```

   ...

2. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
        AT RESONANCE ENERGY  4.59000E+02 EV. THE GAMMA WIDTH  2.00000E-02 DEVIATES TOO MU(
```

- **fudge** Non-errors:

1. GANDR gave this guy huge uncertainties, they are correct, but the evaluations could be better

```
   n-074_W_183.endf: WARNING: variance too big for MF/MT=33,102, index 37. 2.367740e+02 > 1.0(
```

```
   n-074_W_183.endf: WARNING: variance too big for MF/MT=33,851, index 4. 1.582390e+02 > 1.00(
```

   ...

_____ n-074_W_184.endf _____

- **checkr** Non-errors:

1. CHECKR can't handle lumped covariances well.

```
   ERROR(S) FOUND IN MAT=7437, MF=33, MT= 28
      MTL=854 IS ASSIGNED OUT OF ORDER852            SEQUENCE NUMBER     1
```

- **fizcon** Non-errors:

1. Cross-correlations with threshold reactions, so covariance doesn't start at 10e-5 eV, FIZCON bug!

```
   ERROR(S) FOUND IN MAT=7437, MF=33, MT=  2
      ENERGY INCORRECT                               SEQUENCE NUMBER   138
          EXPECT  1.00000E-05, FIND  1.50000E+04
      ENERGY INCORRECT                               SEQUENCE NUMBER   223
```
   ...

2. Threshold reaction, so covariance doesn't start at 10e-5 eV, FIZCON bug!

```
   ERROR(S) FOUND IN MAT=7437, MF=33, MT= 17
      ENERGY INCORRECT                               SEQUENCE NUMBER   100
          EXPECT  1.00000E-05, FIND  1.50000E+04
      ENERGY INCORRECT                               SEQUENCE NUMBER   185
```
   ...

- **psyche** Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     DENSITY  4.20688E+01 SHOULD BE  3.99658E+01

     DENSITY  4.19062E+01 SHOULD BE  3.98117E+01
     ```

     . . .

- **fudge** Non-errors:

  1. GANDR gave this guy huge uncertainties, they are correct, but the evaluations could be better

     ```
     n-074_W_184.endf: WARNING: variance too big for MF/MT=33,102, index 30. 1.898370e+02 > 1.00

     n-074_W_184.endf: WARNING: variance too big for MF/MT=33,102, index 31. 6.280370e+02 > 1.00

     n-074_W_184.endf: WARNING: variance too big for MF/MT=33,102, index 32. 1.504880e+03 > 1.00

     n-074_W_184.endf: WARNING: variance too big for MF/MT=33,102, index 33. 3.208010e+03 > 1.00
     ```

---
n-074_W_186.endf

- **checkr** Non-errors:

  1. CHECKR can't handle lumped covariances well.

     ```
     ERROR(S) FOUND IN MAT=7443, MF=33, MT= 28
         MTL=854 IS ASSIGNED OUT OF ORDER852              SEQUENCE NUMBER     1
     ```

- **fizcon** Non-errors:

  1. Cross-correlations with threshold reactions, so covariance doesn't start at 10e-5 eV, FIZCON bug!

     ```
     ERROR(S) FOUND IN MAT=7443, MF=33, MT=  2
         ENERGY INCORRECT                                SEQUENCE NUMBER   145
             EXPECT  1.00000E-05, FIND  8.50000E+03
         ENERGY INCORRECT                                SEQUENCE NUMBER   232
     ```
     . . .

  2. Threshold reaction, so covariance doesn't start at 10e-5 eV, FIZCON bug!

```
ERROR(S) FOUND IN MAT=7443, MF=33, MT= 17
    ENERGY INCORRECT                                SEQUENCE NUMBER   100
        EXPECT  1.00000E-05, FIND  8.50000E+03
    ENERGY INCORRECT                                SEQUENCE NUMBER   187
...
```

- psyche Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     AT RESONANCE ENERGY  4.69999E+03 EV. THE GAMMA WIDTH  1.66198E-02 DEVIATES TOO MUC
     ```

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
                 LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

                 LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
     ```

     ...

- fudge Non-errors:

  1. GANDR gave this guy huge uncertainties, they are correct, but the evaluations could be better

     ```
     n-074_W_186.endf: WARNING: variance too big for MF/MT=33,856, index 19. 5.295490e+02 > 1.00
     ```

———————————————————————— n-075_Re_185.endf ————————————————————————

- psyche Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
                 DENSITY  7.20700E+00 SHOULD BE  7.61600E+00

                 DENSITY  7.20700E+00 SHOULD BE  7.61600E+00
     ```

     ...

———————————————————————— n-075_Re_187.endf ————————————————————————

- psyche Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    DENSITY  7.19700E+00 SHOULD BE  6.80500E+00

                    DENSITY  7.19700E+00 SHOULD BE  6.80500E+00
```

   . . .

<hr>
_____ n-077_Ir_191.endf _____

- `psyche` Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  2.19412E+06 DISSAGREES WITH THE GIVEN Q  2.08400E+06

        THE CALCULATED Q  4.97161E+05 DISSAGREES WITH THE GIVEN Q  0.00000E+00

        THE CALCULATED Q  8.02569E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

<hr>
_____ n-077_Ir_193.endf _____

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    DENSITY  6.49425E+00 SHOULD BE  6.15976E+00

                    DENSITY  6.49215E+00 SHOULD BE  6.15777E+00
```

   . . .

  2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
        TOTAL OF    32 POINTS IN ERROR FOR THIS J-STATE

        TOTAL OF    32 POINTS IN ERROR FOR THIS J-STATE
```

   . . .

  3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
        THE CALCULATED Q  1.12181E+06 DISSAGREES WITH THE GIVEN Q  1.01800E+06

        THE CALCULATED Q  6.79006E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

- Passed All Checks!

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     LIES OUTSIDE LIMITS 1.00000E-04 TO 6.00000E-04

  2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     THE CALCULATED Q 1.77256E+06 DISSAGREES WITH THE GIVEN Q 1.99406E+06

- `NJOY99` Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

     ```
     energy distributions
        ep.gt.epmax 9.898870E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
      awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
     energy distributions
     ...
      awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
     ```

- `psyche` Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     THE CALCULATED Q 8.71061E+05 DISSAGREES WITH THE GIVEN Q 8.09060E+05

     THE CALCULATED Q 4.12161E+05 DISSAGREES WITH THE GIVEN Q 3.29470E+05

- `NJOY99` Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

     ```
     energy distributions
        ep.gt.epmax 9.899375E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
      awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
     energy distributions
     ...
      awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
     ```

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- NJOY99 Errors:

    1. Outgoing energy E' not energetically allow: E' .le. E-Q.

    ```
    energy distributions
       ep.gt.epmax 9.899874E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
     awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
    energy distributions
    ...
     awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
    ```

- psyche Unknown:

    1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

    ```
            THE CALCULATED Q  6.04498E+05 DISSAGREES WITH THE GIVEN Q  3.27060E+05
    ```

- NJOY99 Errors:

    1. Outgoing energy E' not energetically allow: E' .le. E-Q.

    ```
    energy distributions
       ep.gt.epmax 9.900370E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
     awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
    energy distributions
    ...
     awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
    ```

- psyche Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

    ```
            LIES OUTSIDE LIMITS 1.00000E-04 TO 6.00000E-04
    ```

    2. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

    ```
            THE CALCULATED Q  2.74998E+05 DISSAGREES WITH THE GIVEN Q  1.35060E+05

            THE CALCULATED Q  6.19231E+06 DISSAGREES WITH THE GIVEN Q  5.70675E+06
    ```

- NJOY99 Errors:

114

1. Outgoing energy E' not energetically allow: E' .le. E-Q.

```
energy distributions
   ep.gt.epmax 9.900860E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
 awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
energy distributions
...
 awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
```

―――――――――――――――――――――n-080_Hg_204.endf―――――――――――――――――――――

- `psyche` Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

  ```
           THE CALCULATED Q  5.12412E+06 DISSAGREES WITH THE GIVEN Q  4.46075E+06
  ```

- `NJOY99` Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

  ```
  energy distributions
     ep.gt.epmax 9.901826E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
   awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
  energy distributions
  ...
   awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
  ```

―――――――――――――――――――――n-081_Tl_203.endf―――――――――――――――――――――

- `psyche` Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

  ```
           AT RESONANCE ENERGY  1.47300E+04 EV. THE GAMMA WIDTH  1.21227E+00 DEVIATES TOO MU
  ```

―――――――――――――――――――――n-081_Tl_205.endf―――――――――――――――――――――

- `psyche` Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

  ```
           AT RESONANCE ENERGY  5.09800E+03 EV. THE GAMMA WIDTH  3.87000E-01 DEVIATES TOO MU

           AT RESONANCE ENERGY  2.40400E+04 EV. THE GAMMA WIDTH  9.15131E-02 DEVIATES TOO MU
  ```

     ...

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                          LIES OUTSIDE LIMITS 1.00000E-04 TO 6.00000E-04

                          LIES OUTSIDE LIMITS 1.00000E-04 TO 6.00000E-04
```

   . . .

<div align="center">——————————— n-082_Pb_204.endf ———————————</div>

- `fizcon` Non-errors:

   1. Nested NC-type cov. OK

      ```
      ERROR(S) FOUND IN MAT=8225, MF=33, MT=  3
         BAD NC-TYPE SUB-SUBSECTION                      SEQUENCE NUMBER     4
            CONFLICTS WITH SUB-SUBSECTION AT      4
            DERIVED MT=  2 USED AS AN MTI IN MT=  3
      ```

- `psyche` Errors:

   1. PSYCHE attempted to compute average Eg, found something unusual

      ```
      GAMMA ERROR  E= 4.7151E+06  EBAR= 2.7920E+05  QI=-4.6919E+06

      GAMMA ERROR  E= 2.0000E+08  EBAR= 2.7920E+05  QI=-4.6919E+06

      GAMMA ERROR  E= 5.0859E+06  EBAR= 4.3956E+05  QI=-5.0609E+06

      GAMMA ERROR  E= 2.0000E+08  EBAR= 4.3956E+05  QI=-5.0609E+06
      ```

`psyche` Unknown:

   1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

      ```
      AT RESONANCE ENERGY  1.87900E+04 EV. THE GAMMA WIDTH  1.15000E-01 DEVIATES TOO MUC
      ```

   2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

      ```
      LIES OUTSIDE LIMITS 1.00000E-04 TO 6.00000E-04
      ```

   3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

      ```
      THE CALCULATED Q  1.70487E+06 DISSAGREES WITH THE GIVEN Q  1.97177E+06

      THE CALCULATED Q  7.76697E+06 DISSAGREES WITH THE GIVEN Q  8.20195E+06
      ```

<div align="center">116</div>

- `NJOY99` Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

     ```
     energy distributions
        ep.gt.epmax 9.901826E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-06
      awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
     energy distributions
     ...
      awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
     ```

     ────────────────────── n-082_Pb_206.endf ──────────────────────

- `fizcon` Non-errors:

  1. Nested NC-type cov. OK

     ```
     ERROR(S) FOUND IN MAT=8231, MF=33, MT=  3
         BAD NC-TYPE SUB-SUBSECTION                        SEQUENCE NUMBER     4
             CONFLICTS WITH SUB-SUBSECTION AT     4
             DERIVED MT=  2 USED AS AN MTI IN MT=  3
     ```

- `psyche` Errors:

  1. PSYCHE attempted to compute average Eg, found something unusual

     ```
         GAMMA ERROR  E= 1.0220E+06  EBAR= 2.6583E+05  QI=-1.0170E+06

         GAMMA ERROR  E= 2.0000E+08  EBAR= 2.6583E+05  QI=-1.0170E+06
     ```

  `psyche` Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

     ```
          AT RESONANCE ENERGY  1.64200E+04 EV. THE GAMMA WIDTH  8.60000E-01 DEVIATES TOO MUC

          AT RESONANCE ENERGY  6.59900E+04 EV. THE GAMMA WIDTH  1.30000E+00 DEVIATES TOO MUC
     ```

     . . .

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
                    LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
     ```

  3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

117

```
                    THE CALCULATED Q  1.05075E+06 DISSAGREES WITH THE GIVEN Q  1.13656E+06

                    THE CALCULATED Q  7.24306E+06 DISSAGREES WITH THE GIVEN Q  6.82898E+06
```

- NJOY99 Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

     ```
     energy distributions
        ep.gt.epmax 9.902773E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-06
      awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
     energy distributions
     ...
      awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
     ```

     _____ n-082_Pb_207.endf _____

- fizcon Non-errors:

  1. Nested NC-type cov. OK

     ```
     ERROR(S) FOUND IN MAT=8234, MF=33, MT=  3
         BAD NC-TYPE SUB-SUBSECTION                        SEQUENCE NUMBER     4
             CONFLICTS WITH SUB-SUBSECTION AT      4
             DERIVED MT=  2 USED AS AN MTI IN MT=  3
     ```

- psyche Errors:

  1. PSYCHE attempted to compute average Eg, found something unusual

     ```
           GAMMA ERROR  E= 5.7423E+06  EBAR= 2.0375E+05  QI=-5.7145E+06

           GAMMA ERROR  E= 2.0000E+08  EBAR= 2.0375E+05  QI=-5.7145E+06

           GAMMA ERROR  E= 1.0000E-05  EBAR= 4.3655E+05  QI= 7.4501E+06

           GAMMA ERROR  E= 2.0000E+08  EBAR= 4.3655E+05  QI= 7.4501E+06
     ```

  psyche Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

     ```
           AT RESONANCE ENERGY  4.12600E+04 EV. THE GAMMA WIDTH  3.33120E+00 DEVIATES TOO MUC

           AT RESONANCE ENERGY  1.01800E+05 EV. THE GAMMA WIDTH  3.40000E-01 DEVIATES TOO MUC
     ```

        ...

2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.


                    LIES OUTSIDE LIMITS 1.00000E-04 TO 6.00000E-04
```

3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
              THE CALCULATED Q  5.41186E+05 DISSAGREES WITH THE GIVEN Q  3.91469E+05
```

- `NJOY99` Errors:

  1. Outgoing energy E' not energetically allow: E' .le. E-Q.

  ```
  energy distributions
     ep.gt.epmax 9.903240E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-06
   awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
  energy distributions
  ...
   awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
  ```

  _____ n-082_Pb_208.endf _____

- `fizcon` Non-errors:

  1. Nested NC-type cov. OK

  ```
     ERROR(S) FOUND IN MAT=8237, MF=33, MT=  3
        BAD NC-TYPE SUB-SUBSECTION                      SEQUENCE NUMBER     4
           CONFLICTS WITH SUB-SUBSECTION AT      4
           DERIVED MT=  2 USED AS AN MTI IN MT=  3
  ```

- `psyche` Unknown:

  1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

  ```
           AT RESONANCE ENERGY  7.12100E+04 EV. THE GAMMA WIDTH  3.50000E-02 DEVIATES TOO MUC


           AT RESONANCE ENERGY  8.65600E+04 EV. THE GAMMA WIDTH  2.50000E-02 DEVIATES TOO MUC
  ```

  ...

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

  ```
                    LIES OUTSIDE LIMITS 1.00000E-04 TO 6.00000E-04
  ```

119

3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

            THE CALCULATED Q 3.73621E+06 DISSAGREES WITH THE GIVEN Q 3.93738E+06

- `fudge` Errors:

    1. Wrong interpolation mode used.

            WARNING: Some interpolation changed for angular data from 2 to 4.

    2. Wrong interpolation mode used.

            WARNING: Some interpolation flags changing to 2 for MF = 4, LTT = 2 or 3

- `NJOY99` Errors:

    1. Outgoing energy E' not energetically allow: E' .le. E-Q.

        energy distributions
           ep.gt.epmax 9.903702E-12 with q.lt.0 for (n,x) at e 1.000000E-11 -> 1.000000E-11
         awr.ge.180---there could be a legitimate positive-q channel or admixed fission.

─────────────────────── n-083_Bi_209.endf ───────────────────────

- `psyche` Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

            AT RESONANCE ENERGY 2.39000E+04 EV. THE GAMMA WIDTH 1.15000E-02 DEVIATES TOO MUC

            AT RESONANCE ENERGY 5.26800E+04 EV. THE GAMMA WIDTH 1.00000E-02 DEVIATES TOO MUC

            AT RESONANCE ENERGY 3.27200E+04 EV. THE GAMMA WIDTH 9.60000E-03 DEVIATES TOO MUC

            AT RESONANCE ENERGY 8.42600E+04 EV. THE GAMMA WIDTH 1.47000E-01 DEVIATES TOO MUC

    2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

            LIES OUTSIDE LIMITS 1.00000E-04 TO 6.00000E-04

            LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.

- `NJOY99` Errors:

    1. Outgoing energy E' not energetically allow: E' .le. E-Q.

120

```
energy distributions
    ep.gt.epmax 9.904161E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
 awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
energy distributions
...
 awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
```

─────────────────────────── n-088_Ra_223.endf ───────────────────────────

- Passed All Checks!

─────────────────────────── n-088_Ra_224.endf ───────────────────────────

- Passed All Checks!

─────────────────────────── n-088_Ra_225.endf ───────────────────────────

- Passed All Checks!

─────────────────────────── n-088_Ra_226.endf ───────────────────────────

- Passed All Checks!

─────────────────────────── n-089_Ac_225.endf ───────────────────────────

- Passed All Checks!

─────────────────────────── n-089_Ac_226.endf ───────────────────────────

- Passed All Checks!

─────────────────────────── n-089_Ac_227.endf ───────────────────────────

- `fizcon` Non-errors:

    1. It is OK for uncertainty to be bigger than value

        ```
        ERROR(S) FOUND IN MAT=8931, MF= 1, MT=458

            ERROR GREATER THAN VALUE AT COMPONENT # 39       SEQUENCE NUMBER    11
        ```

         ...

─────────────────────────── n-090_Th_227.endf ───────────────────────────

- Passed All Checks!

─────────────────────────── n-090_Th_228.endf ───────────────────────────

- `psyche` Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

121

```
                    LIES OUTSIDE LIMITS 1.00000E-02 TO 5.00000E-02 EV.
```

- `fudge` Non-errors:

    1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

        ```
        WARNING: More than one delayed fission neutron decay time but no MF = 5 data
        ```

_____ n-090_Th_229.endf _____

- `fizcon` Non-errors:

    1. About 3 eV away from the actual energy of the first excited state, so close enough

        ```
        WARNING(S)     IN MAT=9031, MF= 3, MT=  4
            ELEVEL= 1.00000E+01 MIGHT BE UNREASONABLE         SEQUENCE NUMBER     1

        WARNING(S)     IN MAT=9031, MF= 3, MT= 51
            ELEVEL= 1.00000E+01 MIGHT BE UNREASONABLE         SEQUENCE NUMBER     1
        ```

_____ n-090_Th_230.endf _____

- `fudge` Non-errors:

    1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

        ```
        WARNING: More than one delayed fission neutron decay time but no MF = 5 data
        ```

_____ n-090_Th_231.endf _____

- Passed All Checks!

_____ n-090_Th_232.endf _____

- `checkr` Non-errors:

    1. CHECKR can't handle lumped covariances well.

        ```
        ERROR(S) FOUND IN MAT=9040, MF=33, MT= 22
            MTL=854 IS ASSIGNED OUT OF ORDER851         SEQUENCE NUMBER     1
        ```

- `fizcon` Non-errors:

    1. Cross-correlations with threshold reactions, so covariance doesn't start at 10e-5 eV, FIZCON bug!

```
      ERROR(S) FOUND IN MAT=9040, MF=33, MT=  2
          ENERGY INCORRECT                                   SEQUENCE NUMBER    91
              EXPECT  1.00000E-05, FIND  1.00000E+05
          ENERGY INCORRECT                                   SEQUENCE NUMBER   139
    ...
```

2. Threshold reaction, so covariance doesn't start at 10e-5 eV, FIZCON bug!

```
      ERROR(S) FOUND IN MAT=9040, MF=33, MT=  5
          ENERGY INCORRECT                                   SEQUENCE NUMBER    33
              EXPECT  1.00000E-05, FIND  1.00000E+05
          ENERGY INCORRECT                                   SEQUENCE NUMBER   132
    ...
```

- psyche Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
              DENSITY  8.81835E+00 SHOULD BE  8.61611E+00

              DENSITY  8.79713E+00 SHOULD BE  8.59541E+00
```

    ...

  2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
              TOTAL OF    78 POINTS IN ERROR FOR THIS J-STATE

              TOTAL OF    78 POINTS IN ERROR FOR THIS J-STATE
```

  3. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
              THE CALCULATED Q  4.49409E+05 DISSAGREES WITH THE GIVEN Q  1.40700E+06
```

———————————————————— n-090_Th_233.endf ————————————————————

- fudge Non-errors:

  1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

```
              WARNING: More than one delayed fission neutron decay time but no MF = 5 data
```

———————————————————— n-090_Th_234.endf ————————————————————

- `fudge` Non-errors:

  1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

     ```
     WARNING: More than one delayed fission neutron decay time but no MF = 5 data
     ```

     ――――――――――――――― n-091_Pa_229.endf ―――――――――――――――

- `fizcon` Errors:

  1. A level's energy is somehow off

     ```
     WARNING(S)     IN MAT=9125, MF= 3, MT=  4
         ELEVEL= 1.60000E+02 MIGHT BE UNREASONABLE          SEQUENCE NUMBER     1

     WARNING(S)     IN MAT=9125, MF= 3, MT= 51
         ELEVEL= 1.60000E+02 MIGHT BE UNREASONABLE          SEQUENCE NUMBER     1
     ```

     ――――――――――――――― n-091_Pa_230.endf ―――――――――――――――

- Passed All Checks!

     ――――――――――――――― n-091_Pa_231.endf ―――――――――――――――

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     DENSITY  7.19118E-01 SHOULD BE  6.95952E-01

     DENSITY  7.19071E-01 SHOULD BE  6.95904E-01
     ```

     ...

  2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     TOTAL OF    59 POINTS IN ERROR FOR THIS J-STATE

     TOTAL OF    59 POINTS IN ERROR FOR THIS J-STATE
     ```

     ...

     ――――――――――――――― n-091_Pa_232.endf ―――――――――――――――

- `fizcon` Non-errors:

1. It is OK for uncertainty to be bigger than value

   ```
   ERROR(S) FOUND IN MAT=9134, MF= 1, MT=458

      ERROR GREATER THAN VALUE AT COMPONENT # 51        SEQUENCE NUMBER    11

      ERROR GREATER THAN VALUE AT COMPONENT # 53        SEQUENCE NUMBER    11
   ```

───────────────────── n-091_Pa_233.endf ─────────────────────

- `psyche` Unknown:

   1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

      ```
               DENSITY  8.15151E-01 SHOULD BE  7.87512E-01

               DENSITY  8.15069E-01 SHOULD BE  7.87428E-01
      ```

      . . .

   2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

      ```
                  LIES OUTSIDE LIMITS 1.00000E-02 TO 5.00000E-02 EV.
      ```

   3. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

      ```
              TOTAL OF    56 POINTS IN ERROR FOR THIS J-STATE

              TOTAL OF    56 POINTS IN ERROR FOR THIS J-STATE
      ```

      . . .

───────────────────── n-092_U_230.endf ─────────────────────

- Passed All Checks!

───────────────────── n-092_U_231.endf ─────────────────────

- Passed All Checks!

───────────────────── n-092_U_232.endf ─────────────────────

- Passed All Checks!

───────────────────── n-092_U_233.endf ─────────────────────

- `psyche` Unknown:

1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

   ```
                 DENSITY  9.06460E-01 SHOULD BE  8.68831E-01

                 DENSITY  9.06315E-01 SHOULD BE  8.68691E-01
   ```

   ...

2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

   ```
           TOTAL OF    29 POINTS IN ERROR FOR THIS J-STATE

           TOTAL OF    29 POINTS IN ERROR FOR THIS J-STATE
   ```

   ...

────────────────────── n-092_U_234.endf ──────────────────────

- Passed All Checks!

────────────────────── n-092_U_235.endf ──────────────────────

- `fizcon` Non-errors:

   1. That is the actual energy of the first excited state

   ```
      WARNING(S)     IN MAT=9228, MF= 3, MT=  4
         ELEVEL= 7.68000E+01 MIGHT BE UNREASONABLE        SEQUENCE NUMBER    1

      WARNING(S)     IN MAT=9228, MF= 3, MT= 51
         ELEVEL= 7.68000E+01 MIGHT BE UNREASONABLE        SEQUENCE NUMBER    1
   ```

- `psyche` Unknown:

   1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

   ```
                 DENSITY  8.71036E-01 SHOULD BE  8.23332E-01

                 DENSITY  8.70601E-01 SHOULD BE  8.22921E-01
   ```

   ...

   2. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
               AT RESONANCE ENERGY   7.29491E+02 EV. THE GAMMA WIDTH   1.48790E-01 DEVIATES TOO MU

               AT RESONANCE ENERGY   7.37780E+02 EV. THE GAMMA WIDTH   1.78400E-01 DEVIATES TOO MU
```

. . .

_____n-092_U_236.endf _____

- Passed All Checks!

_____n-092_U_237.endf _____

- `fizcon` Non-errors:

    1. It is OK for uncertainty to be bigger than value

        ```
        ERROR(S) FOUND IN MAT=9234, MF= 1, MT=458

           ERROR GREATER THAN VALUE AT COMPONENT # 39        SEQUENCE NUMBER    11

           ERROR GREATER THAN VALUE AT COMPONENT # 51        SEQUENCE NUMBER    11

           ERROR GREATER THAN VALUE AT COMPONENT # 53        SEQUENCE NUMBER    11
        ```

_____n-092_U_238.endf _____

- `psyche` Unknown:

    1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

        ```
                DENSITY   1.14254E+01 SHOULD BE   1.09988E+01

                DENSITY   1.13492E+01 SHOULD BE   1.09256E+01
        ```

    . . .

    2. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

        ```
            AT RESONANCE ENERGY   7.21685E+02 EV. THE GAMMA WIDTH   3.15000E-03 DEVIATES TOO MU

            AT RESONANCE ENERGY   1.21132E+03 EV. THE GAMMA WIDTH   6.60000E-03 DEVIATES TOO MU
        ```

    . . .

- `fudge` Non-errors:

    1. Corresponds to a dip in between resonances, so is OK

```
n-092_U_238.endf: WARNING: variance too big for MF/MT=33,18, index 530. 1.687508e+02 > 1.00
```

———————————————————— n-092_U_239.endf ————————————————————

- **psyche** Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    LIES OUTSIDE LIMITS 1.00000E-02 TO 5.00000E-02 EV.

                    LIES OUTSIDE LIMITS 1.00000E-02 TO 5.00000E-02 EV.
```

    ...

———————————————————— n-092_U_240.endf ————————————————————

- Passed All Checks!

———————————————————— n-092_U_241.endf ————————————————————

- Passed All Checks!

———————————————————— n-093_Np_234.endf ————————————————————

- Passed All Checks!

———————————————————— n-093_Np_235.endf ————————————————————

- Passed All Checks!

———————————————————— n-093_Np_236.endf ————————————————————

- **fudge** Non-errors:

    1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

```
        WARNING: More than one delayed fission neutron decay time but no MF = 5 data
```

———————————————————— n-093_Np_237.endf ————————————————————

- **psyche** Unknown:

    1. Gamma width not in agreement with PSYCHE's, possibly misguided, expectations

```
            AT RESONANCE ENERGY  2.65100E+02 EV. THE GAMMA WIDTH  3.45740E-01 DEVIATES TOO MUC
```

———————————————————— n-093_Np_238.endf ————————————————————

- **psyche** Unknown:

128

1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

   ```
   LIES OUTSIDE LIMITS 1.00000E-02 TO 5.00000E-02 EV.
   ```

---
n-093_Np_239.endf

- `fudge` Non-errors:

  1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

     ```
     WARNING: More than one delayed fission neutron decay time but no MF = 5 data
     ```

---
n-094_Pu_236.endf

- `fudge` Non-errors:

  1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

     ```
     WARNING: More than one delayed fission neutron decay time but no MF = 5 data
     ```

---
n-094_Pu_237.endf

- Passed All Checks!

---
n-094_Pu_238.endf

- Passed All Checks!

---
n-094_Pu_239.endf

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     DENSITY  3.04430E+00 SHOULD BE  2.97240E+00

     DENSITY  3.04370E+00 SHOULD BE  2.97183E+00
     ```

     . . .

  2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
               TOTAL OF    70 POINTS IN ERROR FOR THIS J-STATE

               TOTAL OF    70 POINTS IN ERROR FOR THIS J-STATE

               TOTAL OF    70 POINTS IN ERROR FOR THIS J-STATE
```

————————————————————n-094_Pu_240.endf ————————————————

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
               DENSITY  6.69700E+00 SHOULD BE  6.55000E+00

               DENSITY  4.63300E+00 SHOULD BE  4.46467E+00
```

————————————————————n-094_Pu_241.endf ————————————————

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
               DENSITY  1.99000E+00 SHOULD BE  1.65000E+00

               DENSITY  1.99000E+00 SHOULD BE  1.65000E+00
```

     . . .

  2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
               TOTAL OF    24 POINTS IN ERROR FOR THIS J-STATE

               TOTAL OF    24 POINTS IN ERROR FOR THIS J-STATE

               TOTAL OF    24 POINTS IN ERROR FOR THIS J-STATE

               TOTAL OF    24 POINTS IN ERROR FOR THIS J-STATE
```

————————————————————n-094_Pu_242.endf ————————————————

- `fizcon` Non-errors:

  1. Nested NC-type cov. OK

```
        ERROR(S) FOUND IN MAT=9446, MF=33, MT=  4
          BAD NC-TYPE SUB-SUBSECTION                       SEQUENCE NUMBER     4
             CONFLICTS WITH SUB-SUBSECTION AT      4
             DERIVED MT=  1 USED AS AN MTI IN MT=  4
```

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
          DENSITY  7.15229E+00 SHOULD BE   6.78579E+00

          DENSITY  7.15105E+00 SHOULD BE   6.78461E+00
     ```

     ```
     ...
     ```

  2. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
          LIES OUTSIDE LIMITS 1.00000E-04 TO 3.00000E-04
     ```

─────────────────────────── n-094_Pu_243.endf ───────────────────────────

- Passed All Checks!

─────────────────────────── n-094_Pu_244.endf ───────────────────────────

- `fudge` Non-errors:

  1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

     ```
        WARNING: More than one delayed fission neutron decay time but no MF = 5 data
     ```

─────────────────────────── n-094_Pu_246.endf ───────────────────────────

- `psyche` Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
        THE CALCULATED Q  4.11944E+06 DISSAGREES WITH THE GIVEN Q  4.47051E+06
     ```

─────────────────────────── n-095_Am_240.endf ───────────────────────────

- Passed All Checks!

─────────────────────────── n-095_Am_241.endf ───────────────────────────

- Passed All Checks!

<hr>
n-095_Am_242.endf
<hr>

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     <div align="center">LIES OUTSIDE LIMITS 1.00000E-02 TO 5.00000E-02 EV.</div>

     <div align="center">LIES OUTSIDE LIMITS 1.00000E-02 TO 5.00000E-02 EV.</div>

     ...

- `fudge` Non-errors:

  1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

     `WARNING: More than one delayed fission neutron decay time but no MF = 5 data`

<hr>
n-095_Am_242m1.endf
<hr>

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     <div align="center">LIES OUTSIDE LIMITS 1.00000E-02 TO 5.00000E-02 EV.</div>

     <div align="center">LIES OUTSIDE LIMITS 1.00000E-02 TO 5.00000E-02 EV.</div>

     ...

- `fudge` Non-errors:

  1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

     `WARNING: More than one delayed fission neutron decay time but no MF = 5 data`

<hr>
n-095_Am_243.endf
<hr>

- `psyche` Unknown:

  1. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
                    DENSITY  1.15752E+00 SHOULD BE  1.09548E+00

                    DENSITY  1.15740E+00 SHOULD BE  1.09537E+00
```

...

2. Level density in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
          TOTAL OF    22 POINTS IN ERROR FOR THIS J-STATE

          TOTAL OF    22 POINTS IN ERROR FOR THIS J-STATE
```

...

3. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

```
               LIES OUTSIDE LIMITS 1.00000E-02 TO 5.00000E-02 EV.

               LIES OUTSIDE LIMITS 1.00000E-02 TO 5.00000E-02 EV.
```

...

- NJOY99 Errors:

    1. Main energy grid is not monotonic

    ```
    that main energy grid is monotonic
        energy  3.00000100E-01 less than  3.00000100E-01 (see point no.  26770)
    ```

————————————————— n-095_Am_244.endf —————————————————

- fudge Non-errors:

    1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

    ```
         WARNING: More than one delayed fission neutron decay time but no MF = 5 data
    ```

————————————————— n-095_Am_244m1.endf —————————————————

- fudge Non-errors:

    1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

    ```
         WARNING: More than one delayed fission neutron decay time but no MF = 5 data
    ```

———————————————n-096_Cm_240.endf———————————————

- Passed All Checks!

———————————————n-096_Cm_241.endf———————————————

- `fudge` Non-errors:

    1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

        ```
        WARNING: More than one delayed fission neutron decay time but no MF = 5 data
        ```

———————————————n-096_Cm_242.endf———————————————

- Passed All Checks!

———————————————n-096_Cm_243.endf———————————————

- `fudge` Non-errors:

    1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

        ```
        WARNING: More than one delayed fission neutron decay time but no MF = 5 data
        ```

———————————————n-096_Cm_244.endf———————————————

- Passed All Checks!

———————————————n-096_Cm_245.endf———————————————

- Passed All Checks!

———————————————n-096_Cm_246.endf———————————————

- Passed All Checks!

———————————————n-096_Cm_247.endf———————————————

- `psyche` Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

        ```
        LIES OUTSIDE LIMITS 4.00000E-05 TO 2.00000E-04
        ```

        ```
        LIES OUTSIDE LIMITS 4.00000E-05 TO 2.00000E-04
        ```

    ...

———————————————n-096_Cm_248.endf———————————————

- `fudge` Non-errors:

  1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

     ```
     WARNING: More than one delayed fission neutron decay time but no MF = 5 data
     ```

  ───────────────── n-096_Cm_249.endf ─────────────────

- `fudge` Non-errors:

  1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

     ```
     WARNING: More than one delayed fission neutron decay time but no MF = 5 data
     ```

  ───────────────── n-096_Cm_250.endf ─────────────────

- `fizcon` Non-errors:

  1. It is OK for uncertainty to be bigger than value

     ```
     ERROR(S) FOUND IN MAT=9655, MF= 1, MT=458

        ERROR GREATER THAN VALUE AT COMPONENT # 41        SEQUENCE NUMBER    11

        ERROR GREATER THAN VALUE AT COMPONENT # 51        SEQUENCE NUMBER    11

        ERROR GREATER THAN VALUE AT COMPONENT # 53        SEQUENCE NUMBER    11
     ```

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     LIES OUTSIDE LIMITS 4.00000E-05 TO 2.00000E-04
     ```

- `fudge` Non-errors:

  1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

     ```
     WARNING: More than one delayed fission neutron decay time but no MF = 5 data
     ```

  ───────────────── n-097_Bk_245.endf ─────────────────

- Passed All Checks!

  ───────────────── n-097_Bk_246.endf ─────────────────

- Passed All Checks!

<div align="center">n-097_Bk_247.endf</div>

- Passed All Checks!

<div align="center">n-097_Bk_248.endf</div>

- Passed All Checks!

<div align="center">n-097_Bk_249.endf</div>

- `psyche` Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

    ```
                     LIES OUTSIDE LIMITS 1.00000E-04 TO 3.00000E-04

                     LIES OUTSIDE LIMITS 1.00000E-04 TO 3.00000E-04
    ```

    ...

- `fudge` Non-errors:

    1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

    ```
            WARNING: More than one delayed fission neutron decay time but no MF = 5 data
    ```

<div align="center">n-097_Bk_250.endf</div>

- `fizcon` Non-errors:

    1. It is OK for uncertainty to be bigger than value

    ```
        ERROR(S) FOUND IN MAT=9755, MF= 1, MT=458

          ERROR GREATER THAN VALUE AT COMPONENT # 51        SEQUENCE NUMBER    11

          ERROR GREATER THAN VALUE AT COMPONENT # 53        SEQUENCE NUMBER    11
    ```

- `fudge` Non-errors:

    1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

    ```
            WARNING: More than one delayed fission neutron decay time but no MF = 5 data
    ```

<div align="center">n-098_Cf_246.endf</div>

- Passed All Checks!

---------------------------n-098_Cf_248.endf---------------------------

- Passed All Checks!

---------------------------n-098_Cf_249.endf---------------------------

- `fizcon` Non-errors:

    1. Level scheme has degenerate levels. ENDF format forbids this, but physics allows it.

        ```
        ERROR(S) FOUND IN MAT=9852, MF= 3, MT= 58
            SECTIONS ARE NOT IN INCREASING LEVEL ENERGY ORDER AT MT =  58
        ```

---------------------------n-098_Cf_250.endf---------------------------

- `psyche` Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

        ```
        LIES OUTSIDE LIMITS 4.00000E-05 TO 2.00000E-04
        ```

- `fudge` Non-errors:

    1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

        ```
        WARNING: More than one delayed fission neutron decay time but no MF = 5 data
        ```

---------------------------n-098_Cf_251.endf---------------------------

- `psyche` Unknown:

    1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

        ```
        LIES OUTSIDE LIMITS 4.00000E-05 TO 2.00000E-04
        ```

---------------------------n-098_Cf_252.endf---------------------------

- Passed All Checks!

---------------------------n-098_Cf_253.endf---------------------------

- Passed All Checks!

---------------------------n-098_Cf_254.endf---------------------------

- `psyche` Unknown:

1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

```
THE CALCULATED Q  3.53622E+08 DISSAGREES WITH THE GIVEN Q  4.60308E+06
```

- `fudge` Non-errors:

  1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

     ```
     WARNING: More than one delayed fission neutron decay time but no MF = 5 data
     ```

---
n-099_Es_251.endf

- Passed All Checks!

---
n-099_Es_252.endf

- Passed All Checks!

---
n-099_Es_253.endf

- `psyche` Unknown:

  1. Strength function in URR not in agreement with PSYCHE's, possibly misguided, expectations

     ```
     LIES OUTSIDE LIMITS 4.00000E-05 TO 2.00000E-04
     ```

---
n-099_Es_254.endf

- Passed All Checks!

---
n-099_Es_254m1.endf

- Passed All Checks!

---
n-099_Es_255.endf

- `psyche` Unknown:

  1. Non-threshold reaction with Q value differing from PSYCHE's, possibly misguided, expectations

     ```
     THE CALCULATED Q  3.64149E+08 DISSAGREES WITH THE GIVEN Q  4.97419E+06
     ```

- `fudge` Non-errors:

  1. ENDF format insists that all outgoing fission neutrons, delayed or otherwise, have spectra. For delayed neutrons this is tough.

     ```
     WARNING: More than one delayed fission neutron decay time but no MF = 5 data
     ```

---
n-100_Fm_255.endf

- Passed All Checks!