Release notes for ENDF/B Development n-074_W_186 evaluation

April 26, 2017

- `fizcon` Warnings:

  1. Cross-correlations with threshold reactions, so covariance doesn't start at 10e-5 eV, FIZCON bug!
     MAT=7443, MF=33, MT= 2 (1): X Thresh. cov.

     ```
     ERROR(S) FOUND IN MAT=7443, MF=33, MT=  2
        ENERGY INCORRECT                                SEQUENCE NUMBER     1
            EXPECT  1.00000E-05, FIND  1.00000E+04
        ENERGY INCORRECT                                SEQUENCE NUMBER     1
            EXPECT  1.00000E-05, FIND  1.00000E+04
     ... [16 more lines]
     ```

  2. Threshold reaction, so covariance doesn't start at 10e-5 eV, FIZCON bug!
     MAT=7443, MF=33, MT= 17 (1): Thresh. cov.

     ```
     ERROR(S) FOUND IN MAT=7443, MF=33, MT= 17
        ENERGY INCORRECT                                SEQUENCE NUMBER     3
            EXPECT  1.00000E-05, FIND  8.50000E+03
        ENERGY INCORRECT                                SEQUENCE NUMBER     3
            EXPECT  1.00000E-05, FIND  1.79010E+06
     ```

  3. Threshold reaction, so covariance doesn't start at 10e-5 eV, FIZCON bug!
     MAT=7443, MF=33, MT= 51 (1): Thresh. cov.

     ```
     ERROR(S) FOUND IN MAT=7443, MF=33, MT= 51
        ENERGY INCORRECT                                SEQUENCE NUMBER     6
            EXPECT  1.00000E-05, FIND  8.50000E+03
        ENERGY INCORRECT                                SEQUENCE NUMBER     6
            EXPECT  1.00000E-05, FIND  1.79010E+06
     ```

  4. Cross-correlations with threshold reactions, so covariance doesn't start at 10e-5 eV, FIZCON bug!
     MAT=7443, MF=33, MT=102 (1): X Thresh. cov.

     ```
     ERROR(S) FOUND IN MAT=7443, MF=33, MT=102
        ENERGY INCORRECT                                SEQUENCE NUMBER     1
            EXPECT  1.00000E-05, FIND  1.00000E+04
        ENERGY INCORRECT                                SEQUENCE NUMBER     7
            EXPECT  1.00000E-05, FIND  1.79010E+06
     ... [10 more lines]
     ```

  5. Threshold reaction, so covariance doesn't start at 10e-5 eV, FIZCON bug!
     MAT=7443, MF=33, MT=851 (1): Thresh. cov.

     ```
     ERROR(S) FOUND IN MAT=7443, MF=33, MT=851
        ENERGY INCORRECT                                SEQUENCE NUMBER     1
            EXPECT  1.00000E-05, FIND  1.79010E+06
        ENERGY INCORRECT                                SEQUENCE NUMBER     1
            EXPECT  1.00000E-05, FIND  1.79010E+06
     ... [10 more lines]
     ```

  6. Threshold reaction, so covariance doesn't start at 10e-5 eV, FIZCON bug!
     MAT=7443, MF=33, MT=852 (1): Thresh. cov.

```
ERROR(S) FOUND IN MAT=7443, MF=33, MT=852
   ENERGY INCORRECT                                SEQUENCE NUMBER     3
       EXPECT  1.00000E-05, FIND  1.12950E+06
```

7. Threshold reaction, so covariance doesn't start at 10e-5 eV, FIZCON bug!
   MAT=7443, MF=33, MT=853 (1): Thresh. cov.

```
ERROR(S) FOUND IN MAT=7443, MF=33, MT=853
   ENERGY INCORRECT                                SEQUENCE NUMBER     5
       EXPECT  1.00000E-05, FIND  1.12950E+06
```

8. Threshold reaction, so covariance doesn't start at 10e-5 eV, FIZCON bug!
   MAT=7443, MF=33, MT=854 (1): Thresh. cov.

```
ERROR(S) FOUND IN MAT=7443, MF=33, MT=854
   ENERGY INCORRECT                                SEQUENCE NUMBER     5
       EXPECT  1.00000E-05, FIND  1.12950E+06
```

9. Threshold reaction, so covariance doesn't start at 10e-5 eV, FIZCON bug!
   MAT=7443, MF=33, MT=855 (1): Thresh. cov.

```
ERROR(S) FOUND IN MAT=7443, MF=33, MT=855
   ENERGY INCORRECT                                SEQUENCE NUMBER     4
       EXPECT  1.00000E-05, FIND  1.12950E+06
```

10. Threshold reaction, so covariance doesn't start at 10e-5 eV, FIZCON bug!
    MAT=7443, MF=33, MT=856 (1): Thresh. cov.

```
ERROR(S) FOUND IN MAT=7443, MF=33, MT=856
   ENERGY INCORRECT                                SEQUENCE NUMBER     1
       EXPECT  1.00000E-05, FIND  1.12950E+06
```

- `fizcon` Errors:

  1. Outgoing ZA is wrong
     MAT=7443, MF=10, MT= 18 (1): Bad ZA (b)

```
ERROR(S) FOUND IN MAT=7443, MF=10, MT= 18
   IZAP       0 NOT IN RANGE    3000 TO  120000
```

- `psyche` Warnings:

  1. Strength function in URR not in agreement with PSYCHE's expectations
     FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.05622E-04 / AVERAGE GAMMA WIDTH 3.28346E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
       ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.05622E-04
                     AVERAGE GAMMA WIDTH 3.28346E-02
                                       LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

  2. Strength function in URR not in agreement with PSYCHE's expectations
     FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.05622E-04 / AVERAGE GAMMA WIDTH 3.28836E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.05622E-04
                       AVERAGE GAMMA WIDTH 3.28836E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

3. Strength function in URR not in agreement with PSYCHE's expectations
   FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.05622E-04 / AVERAGE GAMMA WIDTH 3.29315E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.05622E-04
                       AVERAGE GAMMA WIDTH 3.29315E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

4. Strength function in URR not in agreement with PSYCHE's expectations
   FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.05622E-04 / AVERAGE GAMMA WIDTH 3.29790E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.05622E-04
                       AVERAGE GAMMA WIDTH 3.29790E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

5. Strength function in URR not in agreement with PSYCHE's expectations
   FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.05622E-04 / AVERAGE GAMMA WIDTH 3.30254E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.05622E-04
                       AVERAGE GAMMA WIDTH 3.30254E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

6. Strength function in URR not in agreement with PSYCHE's expectations
   FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.05622E-04 / AVERAGE GAMMA WIDTH 3.30715E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.05622E-04
                       AVERAGE GAMMA WIDTH 3.30715E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

7. Strength function in URR not in agreement with PSYCHE's expectations
   FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.05622E-04 / AVERAGE GAMMA WIDTH 3.31278E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.05622E-04
                       AVERAGE GAMMA WIDTH 3.31278E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

8. Strength function in URR not in agreement with PSYCHE's expectations
   FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.05622E-04 / AVERAGE GAMMA WIDTH 3.31836E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.05622E-04
                       AVERAGE GAMMA WIDTH 3.31836E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

9. Strength function in URR not in agreement with PSYCHE's expectations
   FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.05622E-04 / AVERAGE GAMMA WIDTH 3.32377E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.05622E-04
                       AVERAGE GAMMA WIDTH 3.32377E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

10. Strength function in URR not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.05622E-04 / AVERAGE GAMMA WIDTH 3.32912E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.05622E-04
                       AVERAGE GAMMA WIDTH 3.32912E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

11. Strength function in URR not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.05622E-04 / AVERAGE GAMMA WIDTH 3.33431E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.05622E-04
                       AVERAGE GAMMA WIDTH 3.33431E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

12. Strength function in URR not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.05622E-04 / AVERAGE GAMMA WIDTH 3.33945E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.05622E-04
                       AVERAGE GAMMA WIDTH 3.33945E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

13. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.05622E-04 / AVERAGE GAMMA WIDTH 3.34447E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.05622E-04
                       AVERAGE GAMMA WIDTH 3.34447E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

14. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.05622E-04 / AVERAGE GAMMA WIDTH 3.34938E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.05622E-04
                       AVERAGE GAMMA WIDTH 3.34938E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

15. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.05622E-04 / AVERAGE GAMMA WIDTH 3.35890E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.05622E-04
                       AVERAGE GAMMA WIDTH 3.35890E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

16. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.05622E-04 / AVERAGE GAMMA WIDTH 3.36798E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.05622E-04
                       AVERAGE GAMMA WIDTH 3.36798E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

17. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.05622E-04 / AVERAGE GAMMA WIDTH 3.38504E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.05622E-04
                       AVERAGE GAMMA WIDTH 3.38504E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

18. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.05622E-04 / AVERAGE GAMMA WIDTH 3.40053E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.05622E-04
                       AVERAGE GAMMA WIDTH 3.40053E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

19. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.05622E-04 / AVERAGE GAMMA WIDTH 3.41457E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.05622E-04
                       AVERAGE GAMMA WIDTH 3.41457E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

20. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.05622E-04 / AVERAGE GAMMA WIDTH 3.42721E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.05622E-04
                       AVERAGE GAMMA WIDTH 3.42721E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

21. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.05622E-04 / AVERAGE GAMMA WIDTH 3.43839E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.05622E-04
                       AVERAGE GAMMA WIDTH 3.43839E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

22. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17578E-04 / AVERAGE GAMMA WIDTH 2.51762E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17578E-04
                       AVERAGE GAMMA WIDTH 2.51762E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

23. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17578E-04 / AVERAGE GAMMA WIDTH 2.52139E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17578E-04
                       AVERAGE GAMMA WIDTH 2.52139E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

24. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17578E-04 / AVERAGE GAMMA WIDTH 2.52506E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17578E-04
                       AVERAGE GAMMA WIDTH 2.52506E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

25. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17578E-04 / AVERAGE GAMMA WIDTH 2.52870E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17578E-04
                       AVERAGE GAMMA WIDTH 2.52870E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

26. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17578E-04 / AVERAGE GAMMA WIDTH 2.53226E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17578E-04
                       AVERAGE GAMMA WIDTH 2.53226E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

27. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17578E-04 / AVERAGE GAMMA WIDTH 2.53579E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17578E-04
                       AVERAGE GAMMA WIDTH 2.53579E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

28. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17578E-04 / AVERAGE GAMMA WIDTH 2.54011E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17578E-04
                       AVERAGE GAMMA WIDTH 2.54011E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

29. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17578E-04 / AVERAGE GAMMA WIDTH 2.54438E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17578E-04
                       AVERAGE GAMMA WIDTH 2.54438E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

30. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17578E-04 / AVERAGE GAMMA WIDTH 2.54854E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17578E-04
                       AVERAGE GAMMA WIDTH 2.54854E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

31. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17578E-04 / AVERAGE GAMMA WIDTH 2.55264E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17578E-04
                       AVERAGE GAMMA WIDTH 2.55264E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

32. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17578E-04 / AVERAGE GAMMA WIDTH 2.55662E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17578E-04
                       AVERAGE GAMMA WIDTH 2.55662E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

33. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17578E-04 / AVERAGE GAMMA WIDTH 2.56056E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17578E-04
                       AVERAGE GAMMA WIDTH 2.56056E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

34. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17578E-04 / AVERAGE GAMMA WIDTH 2.56441E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17578E-04
                       AVERAGE GAMMA WIDTH 2.56441E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

35. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17578E-04 / AVERAGE GAMMA WIDTH 2.56818E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17578E-04
                       AVERAGE GAMMA WIDTH 2.56818E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

36. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17578E-04 / AVERAGE GAMMA WIDTH 2.57547E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17578E-04
                       AVERAGE GAMMA WIDTH 2.57547E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

37. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17578E-04 / AVERAGE GAMMA WIDTH 2.58244E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17578E-04
                       AVERAGE GAMMA WIDTH 2.58244E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

38. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17578E-04 / AVERAGE GAMMA WIDTH 2.59551E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17578E-04
                       AVERAGE GAMMA WIDTH 2.59551E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

39. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17578E-04 / AVERAGE GAMMA WIDTH 2.60739E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17578E-04
                       AVERAGE GAMMA WIDTH 2.60739E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

40. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17578E-04 / AVERAGE GAMMA WIDTH 2.61816E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17578E-04
                       AVERAGE GAMMA WIDTH 2.61816E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

41. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17578E-04 / AVERAGE GAMMA WIDTH 2.62785E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17578E-04
                       AVERAGE GAMMA WIDTH 2.62785E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

42. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17578E-04 / AVERAGE GAMMA WIDTH 2.63642E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17578E-04
                       AVERAGE GAMMA WIDTH 2.63642E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

43. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17577E-04 / AVERAGE GAMMA WIDTH 2.40078E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17577E-04
                       AVERAGE GAMMA WIDTH 2.40078E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

44. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17577E-04 / AVERAGE GAMMA WIDTH 2.40431E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17577E-04
                       AVERAGE GAMMA WIDTH 2.40431E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

45. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17577E-04 / AVERAGE GAMMA WIDTH 2.40775E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17577E-04
                       AVERAGE GAMMA WIDTH 2.40775E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

46. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17577E-04 / AVERAGE GAMMA WIDTH 2.41116E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17577E-04
                       AVERAGE GAMMA WIDTH 2.41116E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

47. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17577E-04 / AVERAGE GAMMA WIDTH 2.41449E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17577E-04
                       AVERAGE GAMMA WIDTH 2.41449E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

48. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17577E-04 / AVERAGE GAMMA WIDTH 2.41780E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17577E-04
                       AVERAGE GAMMA WIDTH 2.41780E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

49. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17577E-04 / AVERAGE GAMMA WIDTH 2.42185E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17577E-04
                       AVERAGE GAMMA WIDTH 2.42185E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

50. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17577E-04 / AVERAGE GAMMA WIDTH 2.42585E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17577E-04
                       AVERAGE GAMMA WIDTH 2.42585E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

51. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17577E-04 / AVERAGE GAMMA WIDTH 2.42973E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17577E-04
                       AVERAGE GAMMA WIDTH 2.42973E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

52. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17577E-04 / AVERAGE GAMMA WIDTH 2.43356E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17577E-04
                       AVERAGE GAMMA WIDTH 2.43356E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

53. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17577E-04 / AVERAGE GAMMA WIDTH 2.43728E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17577E-04
                       AVERAGE GAMMA WIDTH 2.43728E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

54. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17577E-04 / AVERAGE GAMMA WIDTH 2.44095E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17577E-04
                       AVERAGE GAMMA WIDTH 2.44095E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

55. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17577E-04 / AVERAGE GAMMA WIDTH 2.44454E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17577E-04
                       AVERAGE GAMMA WIDTH 2.44454E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

56. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17577E-04 / AVERAGE GAMMA WIDTH 2.44806E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17577E-04
                       AVERAGE GAMMA WIDTH 2.44806E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

57. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17577E-04 / AVERAGE GAMMA WIDTH 2.45485E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17577E-04
                       AVERAGE GAMMA WIDTH 2.45485E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

58. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17577E-04 / AVERAGE GAMMA WIDTH 2.46133E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17577E-04
                       AVERAGE GAMMA WIDTH 2.46133E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

59. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17577E-04 / AVERAGE GAMMA WIDTH 2.47346E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17577E-04
                       AVERAGE GAMMA WIDTH 2.47346E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

60. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17577E-04 / AVERAGE GAMMA WIDTH 2.48444E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17577E-04
                       AVERAGE GAMMA WIDTH 2.48444E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

61. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17577E-04 / AVERAGE GAMMA WIDTH 2.49435E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17577E-04
                       AVERAGE GAMMA WIDTH 2.49435E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

62. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17577E-04 / AVERAGE GAMMA WIDTH 2.50323E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17577E-04
                       AVERAGE GAMMA WIDTH 2.50323E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

63. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.17577E-04 / AVERAGE GAMMA WIDTH 2.51103E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.17577E-04
                       AVERAGE GAMMA WIDTH 2.51103E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

64. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33997E-04 / AVERAGE GAMMA WIDTH 3.21984E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33997E-04
                       AVERAGE GAMMA WIDTH 3.21984E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

65. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33997E-04 / AVERAGE GAMMA WIDTH 3.22457E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33997E-04
                       AVERAGE GAMMA WIDTH 3.22457E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

66. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33997E-04 / AVERAGE GAMMA WIDTH 3.22919E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33997E-04
                       AVERAGE GAMMA WIDTH 3.22919E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

67. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33997E-04 / AVERAGE GAMMA WIDTH 3.23377E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33997E-04
                       AVERAGE GAMMA WIDTH 3.23377E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

68. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33997E-04 / AVERAGE GAMMA WIDTH 3.23823E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33997E-04
                       AVERAGE GAMMA WIDTH 3.23823E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

69. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33997E-04 / AVERAGE GAMMA WIDTH 3.24268E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33997E-04
                       AVERAGE GAMMA WIDTH 3.24268E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

70. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33997E-04 / AVERAGE GAMMA WIDTH 3.24810E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33997E-04
                       AVERAGE GAMMA WIDTH 3.24810E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

71. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33997E-04 / AVERAGE GAMMA WIDTH 3.25346E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33997E-04
                       AVERAGE GAMMA WIDTH 3.25346E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

72. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33997E-04 / AVERAGE GAMMA WIDTH 3.25867E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33997E-04
                       AVERAGE GAMMA WIDTH 3.25867E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

73. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33997E-04 / AVERAGE GAMMA WIDTH 3.26381E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33997E-04
                       AVERAGE GAMMA WIDTH 3.26381E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

74. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33997E-04 / AVERAGE GAMMA WIDTH 3.26879E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33997E-04
                       AVERAGE GAMMA WIDTH 3.26879E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

75. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33997E-04 / AVERAGE GAMMA WIDTH 3.27372E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33997E-04
                       AVERAGE GAMMA WIDTH 3.27372E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

76. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33997E-04 / AVERAGE GAMMA WIDTH 3.27853E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33997E-04
                       AVERAGE GAMMA WIDTH 3.27853E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

77. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33997E-04 / AVERAGE GAMMA WIDTH 3.28325E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33997E-04
                       AVERAGE GAMMA WIDTH 3.28325E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

78. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33997E-04 / AVERAGE GAMMA WIDTH 3.29236E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33997E-04
                       AVERAGE GAMMA WIDTH 3.29236E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

79. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33997E-04 / AVERAGE GAMMA WIDTH 3.30105E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33997E-04
                       AVERAGE GAMMA WIDTH 3.30105E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

80. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33997E-04 / AVERAGE GAMMA WIDTH 3.31731E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33997E-04
                       AVERAGE GAMMA WIDTH 3.31731E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

81. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33997E-04 / AVERAGE GAMMA WIDTH 3.33204E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33997E-04
                       AVERAGE GAMMA WIDTH 3.33204E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

82. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33997E-04 / AVERAGE GAMMA WIDTH 3.34533E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33997E-04
                       AVERAGE GAMMA WIDTH 3.34533E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

83. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33997E-04 / AVERAGE GAMMA WIDTH 3.35724E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33997E-04
                       AVERAGE GAMMA WIDTH 3.35724E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

84. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33997E-04 / AVERAGE GAMMA WIDTH 3.36771E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33997E-04
                       AVERAGE GAMMA WIDTH 3.36771E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

85. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33998E-04 / AVERAGE GAMMA WIDTH 2.97546E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33998E-04
                       AVERAGE GAMMA WIDTH 2.97546E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

86. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33998E-04 / AVERAGE GAMMA WIDTH 2.97971E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33998E-04
                       AVERAGE GAMMA WIDTH 2.97971E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

87. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33998E-04 / AVERAGE GAMMA WIDTH 2.98385E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33998E-04
                       AVERAGE GAMMA WIDTH 2.98385E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

88. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33998E-04 / AVERAGE GAMMA WIDTH 2.98796E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33998E-04
                       AVERAGE GAMMA WIDTH 2.98796E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

89. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33998E-04 / AVERAGE GAMMA WIDTH 2.99196E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33998E-04
                       AVERAGE GAMMA WIDTH 2.99196E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

90. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33998E-04 / AVERAGE GAMMA WIDTH 2.99595E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33998E-04
                       AVERAGE GAMMA WIDTH 2.99595E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

91. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33998E-04 / AVERAGE GAMMA WIDTH 3.00080E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33998E-04
                       AVERAGE GAMMA WIDTH 3.00080E-02
                                           LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

92. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33998E-04 / AVERAGE GAMMA WIDTH 3.00560E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33998E-04
                       AVERAGE GAMMA WIDTH 3.00560E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

93. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33998E-04 / AVERAGE GAMMA WIDTH 3.01025E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33998E-04
                       AVERAGE GAMMA WIDTH 3.01025E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

94. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33998E-04 / AVERAGE GAMMA WIDTH 3.01483E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33998E-04
                       AVERAGE GAMMA WIDTH 3.01483E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

95. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33998E-04 / AVERAGE GAMMA WIDTH 3.01928E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33998E-04
                       AVERAGE GAMMA WIDTH 3.01928E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

96. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33998E-04 / AVERAGE GAMMA WIDTH 3.02367E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33998E-04
                       AVERAGE GAMMA WIDTH 3.02367E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

97. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33998E-04 / AVERAGE GAMMA WIDTH 3.02795E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33998E-04
                       AVERAGE GAMMA WIDTH 3.02795E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

98. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33998E-04 / AVERAGE GAMMA WIDTH 3.03214E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33998E-04
                       AVERAGE GAMMA WIDTH 3.03214E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

99. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33998E-04 / AVERAGE GAMMA WIDTH 3.04021E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33998E-04
                       AVERAGE GAMMA WIDTH 3.04021E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

100. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33998E-04 / AVERAGE GAMMA WIDTH 3.04790E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33998E-04
                       AVERAGE GAMMA WIDTH 3.04790E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

101. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33998E-04 / AVERAGE GAMMA WIDTH 3.06222E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33998E-04
                       AVERAGE GAMMA WIDTH 3.06222E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

102. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33998E-04 / AVERAGE GAMMA WIDTH 3.07511E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33998E-04
                       AVERAGE GAMMA WIDTH 3.07511E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

103. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33998E-04 / AVERAGE GAMMA WIDTH 3.08666E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33998E-04
                       AVERAGE GAMMA WIDTH 3.08666E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

104. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33998E-04 / AVERAGE GAMMA WIDTH 3.09691E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33998E-04
                       AVERAGE GAMMA WIDTH 3.09691E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

105. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 2.33998E-04 / AVERAGE GAMMA WIDTH 3.10582E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  2.33998E-04
                       AVERAGE GAMMA WIDTH 3.10582E-02
                                             LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV.
```

- `psyche` Errors:

1. A probability distribution is negative. This is bad.
FILE 4 / SECTION 2 / DISTRIBUTION IS NEGATIVE / FROM -9.9609E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -1.7881E-07 (0): Neg. prob.

```
FILE  4
   SECTION   2
        DISTRIBUTION IS NEGATIVE
                 FROM -9.9609E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -1.7881E-07
```

2. A probability distribution is negative. This is bad.
FILE 4 / SECTION 2 / DISTRIBUTION IS NEGATIVE / FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00 (0): Neg. prob.

```
FILE  4
   SECTION   2
        DISTRIBUTION IS NEGATIVE
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
```

3. A probability distribution is negative. This is bad.
   FILE 4 / SECTION 51 / DISTRIBUTION IS NEGATIVE / FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 1.2338E-05 (0): Neg. prob.

```
FILE  4
   SECTION  51
        DISTRIBUTION IS NEGATIVE
                 FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  1.2338E-05
```

4. A probability distribution is negative. This is bad.
   FILE 4 / SECTION 51 / DISTRIBUTION IS NEGATIVE / FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00 (0): Neg. prob.

```
FILE  4
   SECTION  51
        DISTRIBUTION IS NEGATIVE
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
... [10 more lines]
```

5. A probability distribution is negative. This is bad.
   FILE 4 / SECTION 51 / DISTRIBUTION IS NEGATIVE / FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 6.9141E-06 (0): Neg. prob.

```
FILE  4
   SECTION  51
        DISTRIBUTION IS NEGATIVE
                 FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  6.9141E-06
```

6. A probability distribution is negative. This is bad.
   FILE 4 / SECTION 53 / DISTRIBUTION IS NEGATIVE / FROM -5.0000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -7.2658E-05 (0): Neg. prob.

```
FILE  4
   SECTION  53
        DISTRIBUTION IS NEGATIVE
                 FROM -5.0000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -7.2658E-05
```

7. A probability distribution is negative. This is bad.
   FILE 4 / SECTION 53 / DISTRIBUTION IS NEGATIVE / FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00 (0): Neg. prob.

```
FILE  4
   SECTION  53
        DISTRIBUTION IS NEGATIVE
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
... [6 more lines]
```

8. A probability distribution is negative. This is bad.
FILE 4 / SECTION 57 / DISTRIBUTION IS NEGATIVE / FROM -9.8438E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 1.3709E-06 (0): Neg. prob.

```
FILE  4
   SECTION  57
        DISTRIBUTION IS NEGATIVE
                 FROM -9.8438E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  1.3709E-06
```

9. A probability distribution is negative. This is bad.
FILE 4 / SECTION 57 / DISTRIBUTION IS NEGATIVE / FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00 (0): Neg. prob.

```
FILE  4
   SECTION  57
        DISTRIBUTION IS NEGATIVE
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
... [6 more lines]
```

10. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 880 / FROM -9.9885E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   880
                 FROM -9.9885E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
```

11. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 924 / FROM -9.3750E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 5.9605E-08 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   924
                 FROM -9.3750E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  5.9605E-08
```

12. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 924 / FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   924
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
... [28 more lines]
```

13. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 957 / FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 8.6427E-06 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   957
                 FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  8.6427E-06
```

14. A probability distribution is negative. This is bad.
    FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 957 / FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   957
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
... [24 more lines]
```

15. A probability distribution is negative. This is bad.
    FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 957 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   957
                 ENERGY BALANCE SUMMARY: Q =  -7.19400E+06         ENERGY BALANCE SUMMARY: Q =  -7.19400E+06
                 ENERGY BALANCE SUMMARY: Q =  -3.11900E+06         ENERGY BALANCE SUMMARY: Q =  -3.11900E+06
... [1 more lines]
```

16. A probability distribution is negative. This is bad.
    FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 957 / ENERGY BALANCE SUMMARY: Q = -7.19400E+06 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   957
                 ENERGY BALANCE SUMMARY: Q =  -7.19400E+06
```

17. A probability distribution is negative. This is bad.
    FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 935 / FROM -8.7500E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 5.3644E-07 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   935
                 FROM -8.7500E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  5.3644E-07
```

18. A probability distribution is negative. This is bad.
    FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 935 / FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   935
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
```

```
                FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
... [17 more lines]
```

19. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 935 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   935
                 ENERGY BALANCE SUMMARY: Q =  -1.29470E+07         ENERGY BALANCE SUMMARY: Q =  -1.29470E+07
```

20. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 935 / ENERGY BALANCE SUMMARY: Q = -1.29470E+07 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   935
                 ENERGY BALANCE SUMMARY: Q =  -1.29470E+07
```

21. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 891 / FROM -9.9890E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -2.9802E-08 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   891
                 FROM -9.9890E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -2.9802E-08
```

22. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 924 / FROM -9.9304E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 5.9605E-08 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   924
                 FROM -9.9304E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  5.9605E-08
```

23. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 205 / FROM -9.9923E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 5.9605E-08 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   205
                 FROM -9.9923E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  5.9605E-08
```

24. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 207 / FROM -9.9732E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   207
                 FROM -9.9732E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
```

25. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 869 / FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 4.1127E-06 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   869
                 FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  4.1127E-06
```

26. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 869 / FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   869
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
... [16 more lines]
```

27. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 825 / FROM -9.3498E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 1.1921E-07 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   825
                 FROM -9.3498E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  1.1921E-07
```

28. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 847 / FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 6.0797E-06 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   847
                 FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  6.0797E-06
```

29. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 847 / FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   847
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
```

```
                FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
... [10 more lines]
```

30. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 869 / FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 4.6492E-06 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   869
                FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  4.6492E-06
```

31. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 880 / FROM -8.7500E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -9.2387E-07 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   880
                FROM -8.7500E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -9.2387E-07
```

32. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 880 / FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   880
                FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
                FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
... [7 more lines]
```

33. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 913 / FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 7.1526E-07 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   913
                FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  7.1526E-07
```

34. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 913 / FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   913
                FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
                FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
... [4 more lines]
```

35. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 924 / FROM -8.7500E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 3.5763E-07 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   924
                 FROM -8.7500E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  3.5763E-07
```

36. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 946 / FROM -8.7500E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -1.1921E-07 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   946
                 FROM -8.7500E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -1.1921E-07
```

37. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 946 / FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   946
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
... [17 more lines]
```

38. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 946 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   946
                 ENERGY BALANCE SUMMARY: Q =  -8.40400E+06         ENERGY BALANCE SUMMARY: Q =  -8.40400E+06
                 ENERGY BALANCE SUMMARY: Q =  -2.03580E+07         ENERGY BALANCE SUMMARY: Q =  -2.03580E+07
```

39. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 946 / ENERGY BALANCE SUMMARY: Q = -2.03580E+07 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   946
                 ENERGY BALANCE SUMMARY: Q =  -2.03580E+07
```

40. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 197 / FROM -9.9964E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   197
                 FROM -9.9964E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
```

41. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 130 / FROM -9.9999E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -2.9802E-08 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   130
                 FROM -9.9999E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -2.9802E-08
```

42. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 880 / FROM -9.8438E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 1.1921E-07 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   880
                 FROM -9.8438E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  1.1921E-07
```

43. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 880 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   880
                 ENERGY BALANCE SUMMARY: Q =  -1.50310E+07         ENERGY BALANCE SUMMARY: Q =  -1.50310E+07
```

44. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 880 / ENERGY BALANCE SUMMARY: Q = -1.50310E+07 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   880
                 ENERGY BALANCE SUMMARY: Q =  -1.50310E+07
```

45. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 728 / FROM -9.9945E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -2.9802E-08 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   728
                 FROM -9.9945E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -2.9802E-08
```

46. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 935 / FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 8.4639E-06 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   935
                 FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  8.4639E-06
```

47. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 1012 / FROM -9.9988E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -5.9605E-08 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER  1012
                 FROM -9.9988E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -5.9605E-08
```

48. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 1012 / FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER  1012
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
... [2 more lines]
```

49. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 1045 / FROM -5.0000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 3.9339E-06 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER  1045
                 FROM -5.0000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  3.9339E-06
```

50. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 1045 / FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER  1045
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
... [3 more lines]
```

51. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 1045 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER  1045
```

```
                ENERGY BALANCE SUMMARY: Q =   0.00000E+00         ENERGY BALANCE SUMMARY: Q =   0.00000E+00
                ENERGY BALANCE SUMMARY: Q =   5.46700E+06         ENERGY BALANCE SUMMARY: Q =   5.46700E+06
```

52. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 1045 / ENERGY BALANCE SUMMARY: Q = 5.46700E+06 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER  1045
                ENERGY BALANCE SUMMARY: Q =   5.46700E+06
```

53. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 229 / FROM -9.9317E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 5.9605E-08 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   229
                FROM -9.9317E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  5.9605E-08
```

54. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 891 / FROM -8.7500E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 1.1921E-07 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   891
                FROM -8.7500E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  1.1921E-07
```

55. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 891 / FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   891
                FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
                FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
... [4 more lines]
```

56. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 902 / FROM -9.8438E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 5.9605E-08 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   902
                FROM -9.8438E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  5.9605E-08
```

57. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 902 / FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00

(0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   902
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
... [14 more lines]
```

58. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 924 / FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 8.3447E-07 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   924
                 FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  8.3447E-07
```

59. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 803 / FROM -9.9966E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -5.9605E-08 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   803
                 FROM -9.9966E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -5.9605E-08
```

60. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 858 / FROM -8.7500E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 2.5630E-06 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   858
                 FROM -8.7500E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  2.5630E-06
```

61. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 858 / FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   858
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
                 FROM -1.0000E+00 TO -1.0000E+00 NEGATIVE PROBABILITY IS -0.0000E+00
... [6 more lines]
```

62. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 880 / FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 1.4305E-06 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   880
                 FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  1.4305E-06
```

63. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 902 / FROM -9.3750E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 1.6689E-06 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   902
                 FROM -9.3750E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  1.6689E-06
```

64. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 935 / FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 1.4305E-06 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   935
                 FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  1.4305E-06
```

65. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 946 / FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 5.9605E-08 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   946
                 FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  5.9605E-08
```

66. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 957 / FROM -5.0000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 1.2517E-05 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   957
                 FROM -5.0000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  1.2517E-05
```

67. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 869 / FROM -8.7500E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS 1.1921E-07 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   869
                 FROM -8.7500E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS  1.1921E-07
```

68. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 924 / FROM -8.7500E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -4.1723E-07 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   924
                 FROM -8.7500E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -4.1723E-07
```

69. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 957 / FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -1.0133E-06 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   957
                 FROM -7.5000E-01 TO -1.0000E+00 NEGATIVE PROBABILITY IS -1.0133E-06
```

70. A probability distribution is negative. This is bad.
FILE 6 / SECTION 5 / DISTRIBUTION IS NEGATIVE SEQUENCE NUMBER 957 / ENERGY BALANCE SUMMARY: Q = 6.42100E+06 (0): Neg. prob.

```
FILE  6
   SECTION   5
        DISTRIBUTION IS NEGATIVE                        SEQUENCE NUMBER   957
                 ENERGY BALANCE SUMMARY: Q =   6.42100E+06
```

- `groupie` Errors:

1. Very small elastic cross section found
0: Small elastic

```
 Multi-Group and Multi-Band Parameters from ENDF/B Data (GROUPIE 2015-2)
 ------------------------------------------------------------------------------
 ENDF/B Input and Output Data Filenames
 ENDFB.IN
 ENDFB.OUT
... [98 more lines]
```

- `fudge-4.0` Warnings:

1. Generic warning message
Reading ENDF file: ../n-074_W_186.endf (Error # 0): Warning

```
WARNING: Encountered MT=18 MF=8/10 data (not yet accepted in ENDF format). See option --ignoreMF10Fission
```

2. A covariance format not yet supported by fudge (LRF=7 covariances)
Reading ENDF file: ../n-074_W_186.endf (Error # 1): Cov. unimp. (e)

```
WARNING: skipping LRF=7 resonance covariances!
```

3. Dead link?
resonances / resolved / R_Matrix_Limited / channels / channel gamma + W187 (Error # 0): unresolvedLink

```
WARNING: Unresolved link to /reactionSuite/reactions/reaction[@label='21']
```

4. Dead link?
   resonances / resolved / R_Matrix_Limited / channel n + W186 (Error # 0): unresolvedLink

```
WARNING: Unresolved link to /reactionSuite/reactions/reaction[@label='0']
```

5. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
   Section 1 (n + W186): / Form 'eval': / Component 0 (Error # 0): Condition num.

```
WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
```

6. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
   Section 1 (n + W186): / Form 'eval': / Component 1 (Error # 0): Condition num.

```
WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
```

7. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
   Section 28 (W187 + gamma): / Form 'eval': (Error # 0): Condition num.

```
WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
```

8. The on-diagonal elements of a covariance (the varience...) were very big.
   Section 55 (lump5): / Form 'eval': (Error # 0): Large variance

```
WARNING: Encountered very large variance (5.295490e+02%) at index 19.
```

9. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
   Section 56 (n + W186 [angular distribution]): / Form 'eval': (Error # 1): Condition num.

```
WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
```

- `fudge-4.0` Errors:

1. Found a negative probability
   reaction label 0: n + W186 / Product: n / Distribution: / angularTwoBody - regions2d: / region index 0: XYs2d (Error # 0): Negative prob.

```
WARNING: Negative probabilities encountered. Incident energy: 5.e7 eV, worst case: -5.77153669458e-06
WARNING: Negative probabilities encountered. Incident energy: 6.e7 eV, worst case: -7.3122088603e-06
WARNING: Negative probabilities encountered. Incident energy: 7.e7 eV, worst case: -3.66270648096e-06
```

2. Energy range of data set does not match cross section range
   reaction label 1: n + W186_e1 / Product: n / Distribution: / angularTwoBody - XYs2d: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (123244.9 -> 150000000.0) vs (123245.0 -> 150000000.0)
```

3. Found a negative probability
   reaction label 2: n + W186_e2 / Product: n / Distribution: / angularTwoBody - XYs2d: (Error # 0): Negative prob.

```
WARNING: Negative probabilities encountered. Incident energy: 1.5e8 eV, worst case: -2.83841528317e-07
```

4. Found a negative probability
   reaction label 3: n + W186_e3 / Product: n / Distribution: / angularTwoBody - XYs2d: (Error # 0): Negative prob.

```
WARNING: Negative probabilities encountered. Incident energy: 1.3e8 eV, worst case: -2.02783322667e-06
WARNING: Negative probabilities encountered. Incident energy: 1.5e8 eV, worst case: -4.69201814356e-05
```

5. Energy range of data set does not match cross section range
   reaction label 7: n + W186_e7 / Product: n / Distribution: / angularTwoBody - XYs2d: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (957907.9 -> 150000000.0) vs (957908.0 -> 150000000.0)
```

6. Found a negative probability
   reaction label 8: n + W186_e8 / Product: n / Distribution: / angularTwoBody - XYs2d: (Error # 0): Negative prob.

```
WARNING: Negative probabilities encountered. Incident energy: 1.3e8 eV, worst case: -1.19730169556e-05
```

7. Energy range of data set does not match cross section range
   reaction label 9: n + W186_e9 / Product: n / Distribution: / angularTwoBody - XYs2d: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (1020395.0 -> 150000000.0) vs (1020400.0 -> 150000000.0)
```

8. Found a negative probability
   reaction label 11: n + W186_e11 / Product: n / Distribution: / angularTwoBody - XYs2d: (Error # 0): Negative prob.

```
WARNING: Negative probabilities encountered. Incident energy: 1.3e8 eV, worst case: -3.35724535788e-06
WARNING: Negative probabilities encountered. Incident energy: 1.5e8 eV, worst case: -5.74954638088e-06
```

9. Energy range of data set does not match cross section range
   reaction label 12: n + (W186_c -> W186 + gamma) / Product: n / Distribution: / energyAngular - XYs3d: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (692999.8 -> 150000000.0) vs (693000.0 -> 150000000.0)
```

10. Energy range of data set does not match cross section range
    reaction label 12: n + (W186_c -> W186 + gamma) / Product: W186_c / Decay product: W186 / Distribution: / uncorrelated - energy - XYs2d: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (692999.8 -> 150000000.0) vs (693000.0 -> 150000000.0)
```

11. Energy range of data set does not match cross section range
    reaction label 12: n + (W186_c -> W186 + gamma) / Product: W186_c / Decay product: gamma / Multiplicity: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (692999.8 -> 150000000.0) vs (693000.0 -> 150000000.0)
```

12. Energy range of data set does not match cross section range
reaction label 12: n + (W186_c ->W186 + gamma) / Product: W186_c / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (692999.8 -> 150000000.0) vs (693000.0 -> 150000000.0)
```

13. Energy range of data set does not match cross section range
reaction label 12: n + (W186_c ->W186 + gamma) / Product: W186_c / uncorrelated - energy - XYs2d: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (692999.8 -> 150000000.0) vs (693000.0 -> 150000000.0)
```

14. Calculated and tabulated Q values disagree.
reaction label 13: n[multiplicity:'2'] + W185 + gamma (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -7516522.915344238 eV vs -7.194e6 eV!
```

15. Found a negative probability
reaction label 13: n[multiplicity:'2'] + W185 + gamma / Product: n / Distribution: / energyAngular - XYs3d: (Error # 0): Negative prob.

```
WARNING: Negative probabilities encountered. Incident energy: 7.e7 eV, worst case: -5.11907076133e-11
WARNING: Negative probabilities encountered. Incident energy: 8.e7 eV, worst case: -1.21730967539e-11
WARNING: Negative probabilities encountered. Incident energy: 1.3e8 eV, worst case: -2.55225142838e-14
WARNING: Negative probabilities encountered. Incident energy: 1.5e8 eV, worst case: -8.4992461969e-12
```

16. Calculated and tabulated Q values disagree.
reaction label 14: n[multiplicity:'3'] + W184 + gamma (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -13153915.10186768 eV vs -1.2947e7 eV!
```

17. Found a negative probability
reaction label 14: n[multiplicity:'3'] + W184 + gamma / Product: n / Distribution: / energyAngular - XYs3d: (Error # 0): Negative prob.

```
WARNING: Negative probabilities encountered. Incident energy: 1.5e8 eV, worst case: -9.95751506233e-13
```

18. Calculated and tabulated Q values disagree.
reaction label 15: n[multiplicity:'4'] + W183 + gamma (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -20670438.01721191 eV vs -2.0358e7 eV!
```

19. If an outgoing energy distribution ends with more than one energy with probability=0, proper unitbase treatment is unclear. Distribution should end with exactly one P=0 point.
reaction label 15: n[multiplicity:'4'] + W183 + gamma / Product: n / Distribution: / energyAngular - XYs3d: (Error # 0): extraOutgoingEnergy

```
WARNING: Extra zero-probability outgoing energies found at incident energy 1.5e8 eV
```

20. Calculated and tabulated Q values disagree.
reaction label 16: n + H1 + Ta185 + gamma (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -8612857.346221924 eV vs -8.404e6 eV!
```

21. Energy range of data set does not match cross section range
reaction label 16: n + H1 + Ta185 + gamma / Product: n / Distribution: / energyAngular - XYs3d: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (8449585.0 -> 150000000.0) vs (8449590.0 -> 150000000.0)
```

22. Energy range of data set does not match cross section range
reaction label 16: n + H1 + Ta185 + gamma / Product: H1 / Distribution: / energyAngular - XYs3d: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (8449585.0 -> 150000000.0) vs (8449590.0 -> 150000000.0)
```

23. Energy range of data set does not match cross section range
reaction label 16: n + H1 + Ta185 + gamma / Product: Ta185 / Distribution: / uncorrelated - energy - XYs2d: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (8449585.0 -> 150000000.0) vs (8449590.0 -> 150000000.0)
```

24. Energy range of data set does not match cross section range
reaction label 16: n + H1 + Ta185 + gamma / Product: gamma / Multiplicity: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (8449585.0 -> 150000000.0) vs (8449590.0 -> 150000000.0)
```

25. Energy range of data set does not match cross section range
reaction label 16: n + H1 + Ta185 + gamma / Product: gamma / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (8449585.0 -> 150000000.0) vs (8449590.0 -> 150000000.0)
```

26. Energy range of data set does not match cross section range
reaction label 16: n + H1 + Ta185 + gamma / Product: gamma / uncorrelated - energy - XYs2d: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (8449585.0 -> 150000000.0) vs (8449590.0 -> 150000000.0)
```

27. Calculated and tabulated Q values disagree.
reaction label 17: H1 + Ta186 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -2975465.159729004 eV vs -3.119e6 eV!
```

28. Energy range of data set does not match cross section range
reaction label 17: H1 + Ta186 / Product: H1 / Distribution: / angularTwoBody - XYs2d: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (3135918.0 -> 150000000.0) vs (3135920.0 -> 150000000.0)
```

29. Calculated and tabulated Q values disagree.
reaction label 18: H1 + (Ta186_c ->Ta186 + gamma) (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -2975465.159729004 eV vs -3.119e6 eV!
```

30. Energy range of data set does not match cross section range
reaction label 18: H1 + (Ta186_c ->Ta186 + gamma) / Product: H1 / Distribution: / energyAngular - XYs3d: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (3135918.0 -> 150000000.0) vs (3135920.0 -> 150000000.0)
```

31. Energy range of data set does not match cross section range
reaction label 18: H1 + (Ta186_c ->Ta186 + gamma) / Product: Ta186_c / Decay product: Ta186 / Distribution: / uncorrelated - energy - XYs2d: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (3135918.0 -> 150000000.0) vs (3135920.0 -> 150000000.0)
```

32. Energy range of data set does not match cross section range
reaction label 18: H1 + (Ta186_c ->Ta186 + gamma) / Product: Ta186_c / Decay product: gamma / Multiplicity: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (3135918.0 -> 150000000.0) vs (3135920.0 -> 150000000.0)
```

33. Energy range of data set does not match cross section range
reaction label 18: H1 + (Ta186_c ->Ta186 + gamma) / Product: Ta186_c / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (3135918.0 -> 150000000.0) vs (3135920.0 -> 150000000.0)
```

34. Energy range of data set does not match cross section range
reaction label 18: H1 + (Ta186_c ->Ta186 + gamma) / Product: Ta186_c / uncorrelated - energy - XYs2d: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (3135918.0 -> 150000000.0) vs (3135920.0 -> 150000000.0)
```

35. Calculated and tabulated Q values disagree.
reaction label 19: He4 + Hf183 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: 6372456.441192627 eV vs 6.421e6 eV!
```

36. Calculated and tabulated Q values disagree.
reaction label 20: He4 + (Hf183_c ->Hf183 + gamma) (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: 6372456.441192627 eV vs 6.421e6 eV!
```

37. Calculated and tabulated Q values disagree.
reaction label 21: W187 + gamma (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: 5535236.468353271 eV vs 5.467e6 eV!
```

38. Calculated and tabulated Q values disagree.
reaction label 22: n[multiplicity:'2'] + H1 + Ta184 + gamma (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -15189814.89715576 eV vs -1.5031e7 eV!
```

39. Found a negative probability
reaction label 22: n[multiplicity:'2'] + H1 + Ta184 + gamma / Product: n / Distribution: / energyAngular - XYs3d: (Error # 0): Negative prob.

```
WARNING: Negative probabilities encountered. Incident energy: 1.3e8 eV, worst case: -2.63909255675e-24
WARNING: Negative probabilities encountered. Incident energy: 1.5e8 eV, worst case: -2.79750000005e-16
```

40. Found a negative probability
reaction label 22: n[multiplicity:'2'] + H1 + Ta184 + gamma / Product: H1 / Distribution: / energyAngular - XYs3d: (Error # 0): Negative prob.

```
WARNING: Negative probabilities encountered. Incident energy: 9.e7 eV, worst case: -3.40000000038e-14
WARNING: Negative probabilities encountered. Incident energy: 1.5e8 eV, worst case: -6.25263309983e-12
```

41. If an outgoing energy distribution ends with more than one energy with probability=0, proper unitbase treatment is unclear. Distribution should end with exactly one P=0 point.
reaction label 22: n[multiplicity:'2'] + H1 + Ta184 + gamma / Product: H1 / Distribution: (Error # 1): extraOutgoingEnergy

```
WARNING: Extra zero-probability outgoing energies found at incident energy 1.3e8 eV
```

42. A covariance matrix was not positive semi-definite, so it has negative eigenvalues.
Section 56 (n + W186 [angular distribution]): / Form 'eval': / LegendreLValue L=1 vs 1 (Error # 0): Bad evs

```
WARNING: 4 negative eigenvalues! Worst case = -6.611909e-04
```

43. Since the min allowed variance is 0, this means really you have a negative variance!!!!
Section 57 (n + W186_e1 [angular distribution]): / Form 'eval': / LegendreLValue L=1 vs 1 (Error # 0): Very small variance

```
WARNING: Encountered very small variance (-1.601180e-04%) at index 20.
WARNING: Encountered very small variance (-5.254340e-04%) at index 21.
WARNING: Encountered very small variance (-7.824860e-04%) at index 22.
WARNING: Encountered very small variance (-8.004850e-04%) at index 23.
        ... plus 6 more instances of this message
```

44. A covariance matrix was not positive semi-definite, so it has negative eigenvalues.
Section 57 (n + W186_e1 [angular distribution]): / Form 'eval': (Error # 1): Bad evs

```
WARNING: 5 negative eigenvalues! Worst case = -1.786436e-02
```

- `njoy2012` Warnings:

1. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (0): HEATR/hinit (4)

```
---message from hinit---mf6, mt102 does not give recoil za= 74187
                        photon momentum recoil used.
```

2. Coefficient mismatch of some sort
covr...process covariance data (1): COVR/matshd (2)

```
---message from matshd---processing of mat/mt 7443/  1 vs. mat1/mt1 7443/  2
                        largest coefficient= -5.08790E+01 at index 243  12
```

3. The number of coefficients was too large in a covariance
covr...process covariance data (2): Cov:Too many coeff.

```
---message from matshd---6040 coefficients > 1
                        reset and continue.
```

4. The number of coefficients was too large in a covariance
   covr...process covariance data (3): Cov:Too many coeff.

```
 ---message from matshd---**** coefficients > 2
                          reset and continue
```

5. Coefficient mismatch of some sort
   covr...process covariance data (4): COVR/matshd (2)

```
 ---message from matshd---processing of mat/mt 7443/  1 vs. mat1/mt1 7443/102
                          largest coefficient=  4.63264E+10 at index  12 219
```

6. The number of coefficients was too large in a covariance
   covr...process covariance data (5): Cov:Too many coeff.

```
 ---message from matshd---**** coefficients > 1
                          reset and continue.
```

7. The number of coefficients was too large in a covariance
   covr...process covariance data (6): Cov:Too many coeff.

```
 ---message from matshd---**** coefficients > 2
                          reset and continue
```

8. Generic warning message
   covr...process covariance data (7): Warning

```
---message from stderr
At line 832 of file endf.f90 (unit = 10, file = '../../tmp/n-074_W_186/njoy2012/gfortrantmpsH5jCX')
```

- `njoy2012` Errors:

1. An angular distribution is negative
   acer...monte carlo neutron and photon data (0): Neg. P(Ejμ) (b)

```
 ---message from ptleg2---negative probs found
                             6 for mt=  2 e= 5.000E+07
```

2. An angular distribution is negative
   acer...monte carlo neutron and photon data (1): Neg. P(Ejμ) (b)

```
 ---message from ptleg2---negative probs found
                             4 for mt=  2 e= 6.000E+07
```

3. An angular distribution is negative
   acer...monte carlo neutron and photon data (2): Neg. P(Ejμ) (b)

```
 ---message from ptleg2---negative probs found
                             1 for mt=  2 e= 7.000E+07
```

4. An angular distribution is negative
   acer...monte carlo neutron and photon data (3): Neg. P(Ejμ) (b)

```
 ---message from ptleg2---negative probs found
                             6 for mt= 51 e= 1.000E+08
```

5. An angular distribution is negative
   acer...monte carlo neutron and photon data (4): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          85 for mt= 51 e= 1.300E+08
```

6. An angular distribution is negative
   acer...monte carlo neutron and photon data (5): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                         103 for mt= 51 e= 1.500E+08
```

7. An angular distribution is negative
   acer...monte carlo neutron and photon data (6): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           4 for mt= 53 e= 1.300E+08
```

8. An angular distribution is negative
   acer...monte carlo neutron and photon data (7): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          20 for mt= 53 e= 1.500E+08
```

9. An angular distribution is negative
   acer...monte carlo neutron and photon data (8): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          63 for mt= 57 e= 1.300E+08
```

10. An angular distribution is negative
    acer...monte carlo neutron and photon data (9): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                         290 for mt= 57 e= 1.500E+08
```

11. An angular distribution is negative
    acer...monte carlo neutron and photon data (10): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           2 for mt= 58 e= 1.300E+08
```

12. An angular distribution is negative
    acer...monte carlo neutron and photon data (11): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           3 for mt= 61 e= 1.300E+08
```

13. An angular distribution is negative
    acer...monte carlo neutron and photon data (12): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           8 for mt= 61 e= 1.500E+08
```

14. An angular distribution is negative
    acer...monte carlo neutron and photon data (13): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          40 for mt= 16 e= 5.869E+01
```

15. An angular distribution is negative
    acer...monte carlo neutron and photon data (14): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          21 for mt= 16 e= 6.827E+01
```

16. An angular distribution is negative
    acer...monte carlo neutron and photon data (15): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           1 for mt= 16 e= 1.141E+02
```

17. An angular distribution is negative
    acer...monte carlo neutron and photon data (16): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           1 for mt= 16 e= 1.168E+02
```

18. An angular distribution is negative
    acer...monte carlo neutron and photon data (17): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           1 for mt= 16 e= 1.234E+02
```

19. An angular distribution is negative
    acer...monte carlo neutron and photon data (18): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           2 for mt= 16 e= 1.296E+02
```

20. An angular distribution is negative
    acer...monte carlo neutron and photon data (19): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          49 for mt= 16 e= 1.311E+02
```

21. An angular distribution is negative
    acer...monte carlo neutron and photon data (20): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          39 for mt= 16 e= 1.326E+02
```

22. An angular distribution is negative
    acer...monte carlo neutron and photon data (21): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          92 for mt= 16 e= 1.342E+02
```

23. An angular distribution is negative
    acer...monte carlo neutron and photon data (22): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          25 for mt= 16 e= 1.357E+02
```

24. An angular distribution is negative
acer...monte carlo neutron and photon data (23): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          25 for mt= 17 e= 1.311E+02
```

25. An angular distribution is negative
acer...monte carlo neutron and photon data (24): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          36 for mt= 17 e= 1.326E+02
```

26. An angular distribution is negative
acer...monte carlo neutron and photon data (25): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          40 for mt= 28 e= 5.869E+01
```

27. An angular distribution is negative
acer...monte carlo neutron and photon data (26): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          21 for mt= 28 e= 6.827E+01
```

28. An angular distribution is negative
acer...monte carlo neutron and photon data (27): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           2 for mt= 28 e= 8.758E+01
```

29. An angular distribution is negative
acer...monte carlo neutron and photon data (28): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           1 for mt= 28 e= 1.168E+02
```

30. An angular distribution is negative
acer...monte carlo neutron and photon data (29): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           1 for mt= 28 e= 1.249E+02
```

31. An angular distribution is negative
acer...monte carlo neutron and photon data (30): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           1 for mt= 28 e= 1.296E+02
```

32. An angular distribution is negative
acer...monte carlo neutron and photon data (31): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           3 for mt= 28 e= 1.311E+02
```

33. An angular distribution is negative
acer...monte carlo neutron and photon data (32): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          75 for mt= 28 e= 1.326E+02
```

34. An angular distribution is negative
acer...monte carlo neutron and photon data (33): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          47 for mt= 28 e= 1.342E+02
```

35. An angular distribution is negative
acer...monte carlo neutron and photon data (34): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          16 for mt= 28 e= 1.357E+02
```

36. An angular distribution is negative
acer...monte carlo neutron and photon data (35): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           3 for mt= 41 e= 1.101E+02
```

37. An angular distribution is negative
acer...monte carlo neutron and photon data (36): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           1 for mt= 41 e= 1.141E+02
```

38. An angular distribution is negative
acer...monte carlo neutron and photon data (37): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          40 for mt= 91 e= 5.869E+01
```

39. An angular distribution is negative
acer...monte carlo neutron and photon data (38): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          21 for mt= 91 e= 6.827E+01
```

40. An angular distribution is negative
acer...monte carlo neutron and photon data (39): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           1 for mt= 91 e= 7.164E+01
```

41. An angular distribution is negative
acer...monte carlo neutron and photon data (40): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           1 for mt= 91 e= 9.697E+01
```

42. An angular distribution is negative
acer...monte carlo neutron and photon data (41): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           2 for mt= 91 e= 1.249E+02
```

43. An angular distribution is negative
acer...monte carlo neutron and photon data (42): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          60 for mt= 91 e= 1.311E+02
```

44. An angular distribution is negative
acer...monte carlo neutron and photon data (43): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          40 for mt= 91 e= 1.326E+02
```

45. An angular distribution is negative
acer...monte carlo neutron and photon data (44): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          17 for mt= 91 e= 1.342E+02
```

46. An angular distribution is negative
acer...monte carlo neutron and photon data (45): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          17 for mt= 91 e= 1.357E+02
```

47. An angular distribution is negative
acer...monte carlo neutron and photon data (46): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           7 for mt= 91 e= 1.404E+02
```

48. An angular distribution is negative
acer...monte carlo neutron and photon data (47): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          11 for mt= 91 e= 1.419E+02
```

49. An angular distribution is negative
acer...monte carlo neutron and photon data (48): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          13 for mt= 91 e= 1.434E+02
```

50. An angular distribution is negative
acer...monte carlo neutron and photon data (49): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          55 for mt= 91 e= 1.465E+02
```

51. An angular distribution is negative
acer...monte carlo neutron and photon data (50): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           1 for mt= 28 e= 8.759E+01
```

52. An angular distribution is negative
acer...monte carlo neutron and photon data (51): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          1 for mt= 28 e= 8.863E+01
```

53. An angular distribution is negative
acer...monte carlo neutron and photon data (52): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          2 for mt= 28 e= 8.586E+01
```

54. An angular distribution is negative
acer...monte carlo neutron and photon data (53): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          4 for mt= 28 e= 9.779E+01
```

55. An angular distribution is negative
acer...monte carlo neutron and photon data (54): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                         36 for mt= 28 e= 1.038E+02
```

56. An angular distribution is negative
acer...monte carlo neutron and photon data (55): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          2 for mt= 28 e= 1.020E+02
```

57. An angular distribution is negative
acer...monte carlo neutron and photon data (56): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          2 for mt= 28 e= 1.101E+02
```

58. An angular distribution is negative
acer...monte carlo neutron and photon data (57): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                         44 for mt= 28 e= 1.128E+02
```

59. An angular distribution is negative
acer...monte carlo neutron and photon data (58): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                         30 for mt= 28 e= 1.141E+02
```

60. An angular distribution is negative
acer...monte carlo neutron and photon data (59): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                         21 for mt= 28 e= 1.155E+02
```

61. An angular distribution is negative
acer...monte carlo neutron and photon data (60): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          2 for mt= 28 e= 1.168E+02
```

62. An angular distribution is negative
acer...monte carlo neutron and photon data (61): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          50 for mt= 28 e= 1.195E+02
```

63. An angular distribution is negative
acer...monte carlo neutron and photon data (62): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           4 for mt= 28 e= 1.188E+02
```

64. An angular distribution is negative
acer...monte carlo neutron and photon data (63): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           2 for mt= 28 e= 1.218E+02
```

65. An angular distribution is negative
acer...monte carlo neutron and photon data (64): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          40 for mt= 28 e= 1.234E+02
```

66. An angular distribution is negative
acer...monte carlo neutron and photon data (65): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          99 for mt= 28 e= 1.249E+02
```

67. An angular distribution is negative
acer...monte carlo neutron and photon data (66): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          86 for mt= 28 e= 1.265E+02
```

68. An angular distribution is negative
acer...monte carlo neutron and photon data (67): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          50 for mt= 28 e= 1.280E+02
```

69. An angular distribution is negative
acer...monte carlo neutron and photon data (68): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          19 for mt= 28 e= 1.296E+02
```

70. An angular distribution is negative
acer...monte carlo neutron and photon data (69): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          24 for mt= 28 e= 1.311E+02
```

71. An angular distribution is negative
acer...monte carlo neutron and photon data (70): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          17 for mt= 28 e= 1.326E+02
```

72. An angular distribution is negative
acer...monte carlo neutron and photon data (71): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          44 for mt= 28 e= 1.342E+02
```

73. An angular distribution is negative
acer...monte carlo neutron and photon data (72): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          29 for mt= 28 e= 1.357E+02
```

74. An angular distribution is negative
acer...monte carlo neutron and photon data (73): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          50 for mt= 28 e= 1.373E+02
```

75. An angular distribution is negative
acer...monte carlo neutron and photon data (74): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          23 for mt= 28 e= 1.388E+02
```

76. An angular distribution is negative
acer...monte carlo neutron and photon data (75): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           1 for mt= 41 e= 6.222E+01
```

77. An angular distribution is negative
acer...monte carlo neutron and photon data (76): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           4 for mt= 41 e= 1.203E+02
```

78. An angular distribution is negative
acer...monte carlo neutron and photon data (77): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          33 for mt= 41 e= 1.234E+02
```

79. An angular distribution is negative
acer...monte carlo neutron and photon data (78): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          31 for mt= 41 e= 1.249E+02
```

80. An angular distribution is negative
acer...monte carlo neutron and photon data (79): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          24 for mt= 41 e= 1.265E+02
```

81. An angular distribution is negative
acer...monte carlo neutron and photon data (80): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          18 for mt= 41 e= 1.280E+02
```

82. An angular distribution is negative
acer...monte carlo neutron and photon data (81): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          46 for mt= 41 e= 1.295E+02
```

83. An angular distribution is negative
acer...monte carlo neutron and photon data (82): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          20 for mt= 41 e= 1.311E+02
```

84. An angular distribution is negative
acer...monte carlo neutron and photon data (83): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           1 for mt=649 e= 8.297E+01
```

85. An angular distribution is negative
acer...monte carlo neutron and photon data (84): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           2 for mt=649 e= 9.072E+01
```

86. An angular distribution is negative
acer...monte carlo neutron and photon data (85): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           2 for mt=649 e= 9.176E+01
```

87. An angular distribution is negative
acer...monte carlo neutron and photon data (86): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           2 for mt=649 e= 9.280E+01
```

88. An angular distribution is negative
acer...monte carlo neutron and photon data (87): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          38 for mt=649 e= 9.384E+01
```

89. An angular distribution is negative
acer...monte carlo neutron and photon data (88): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          40 for mt=649 e= 9.489E+01
```

90. An angular distribution is negative
acer...monte carlo neutron and photon data (89): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          46 for mt=649 e= 1.026E+02
```

91. An angular distribution is negative
acer...monte carlo neutron and photon data (90): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          37 for mt=649 e= 1.038E+02
```

92. An angular distribution is negative
acer...monte carlo neutron and photon data (91): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           9 for mt=649 e= 1.049E+02
```

93. An angular distribution is negative
acer...monte carlo neutron and photon data (92): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          10 for mt=649 e= 1.061E+02
```

94. An angular distribution is negative
acer...monte carlo neutron and photon data (93): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          12 for mt=649 e= 1.073E+02
```

95. An angular distribution is negative
acer...monte carlo neutron and photon data (94): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          59 for mt=649 e= 1.085E+02
```

96. An angular distribution is negative
acer...monte carlo neutron and photon data (95): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          25 for mt=649 e= 1.097E+02
```

97. An angular distribution is negative
acer...monte carlo neutron and photon data (96): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           1 for mt=649 e= 1.061E+02
```

98. An angular distribution is negative
acer...monte carlo neutron and photon data (97): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          52 for mt=649 e= 1.128E+02
```

99. An angular distribution is negative
acer...monte carlo neutron and photon data (98): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          39 for mt=649 e= 1.141E+02
```

100. An angular distribution is negative
acer...monte carlo neutron and photon data (99): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          28 for mt=649 e= 1.155E+02
```

101. An angular distribution is negative
acer...monte carlo neutron and photon data (100): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          25 for mt=649 e= 1.168E+02
```

102. An angular distribution is negative
acer...monte carlo neutron and photon data (101): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          31 for mt=649 e= 1.181E+02
```

103. An angular distribution is negative
acer...monte carlo neutron and photon data (102): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          63 for mt=649 e= 1.195E+02
```

104. An angular distribution is negative
acer...monte carlo neutron and photon data (103): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          55 for mt=649 e= 1.208E+02
```

105. An angular distribution is negative
acer...monte carlo neutron and photon data (104): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          23 for mt=649 e= 1.222E+02
```

106. An angular distribution is negative
acer...monte carlo neutron and photon data (105): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          68 for mt=649 e= 1.235E+02
```

107. An angular distribution is negative
acer...monte carlo neutron and photon data (106): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                         112 for mt=649 e= 1.249E+02
```

108. An angular distribution is negative
acer...monte carlo neutron and photon data (107): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                           1 for mt=649 e= 1.126E+02
```

109. An angular distribution is negative
acer...monte carlo neutron and photon data (108): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          2 for mt=649 e= 1.188E+02
```

110. An angular distribution is negative
acer...monte carlo neutron and photon data (109): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                         32 for mt=649 e= 1.234E+02
```

111. An angular distribution is negative
acer...monte carlo neutron and photon data (110): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                         64 for mt=649 e= 1.249E+02
```

112. An angular distribution is negative
acer...monte carlo neutron and photon data (111): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                         45 for mt=649 e= 1.265E+02
```

113. An angular distribution is negative
acer...monte carlo neutron and photon data (112): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                         63 for mt=649 e= 1.280E+02
```

114. An angular distribution is negative
acer...monte carlo neutron and photon data (113): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                         61 for mt=649 e= 1.296E+02
```

115. An angular distribution is negative
acer...monte carlo neutron and photon data (114): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                         25 for mt=649 e= 1.311E+02
```

116. An angular distribution is negative
acer...monte carlo neutron and photon data (115): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                         21 for mt=649 e= 1.326E+02
```

117. An angular distribution is negative
acer...monte carlo neutron and photon data (116): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                         17 for mt=649 e= 1.342E+02
```

118. An angular distribution is negative
acer...monte carlo neutron and photon data (117): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                         49 for mt=649 e= 1.357E+02
```

119. An angular distribution is negative
acer...monte carlo neutron and photon data (118): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          36 for mt=649 e= 1.373E+02
```

120. An angular distribution is negative
acer...monte carlo neutron and photon data (119): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          59 for mt=649 e= 1.388E+02
```

121. An angular distribution is negative
acer...monte carlo neutron and photon data (120): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          22 for mt=649 e= 1.404E+02
```

122. An angular distribution is negative
acer...monte carlo neutron and photon data (121): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          18 for mt=649 e= 1.419E+02
```

123. An angular distribution is negative
acer...monte carlo neutron and photon data (122): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          72 for mt=649 e= 1.434E+02
```

124. An angular distribution is negative
acer...monte carlo neutron and photon data (123): Neg. P(Ejμ) (b)

```
---message from ptleg2---negative probs found
                          51 for mt=649 e= 1.450E+02
```

- `acelst` Warnings:

  1. The incident energy grid is not monotonic for this angular distribution
  0: Bad Ang. Dist.

```
ACELST WARNING - Processing Ang.Dist.MT         2
                 E-grid non-monotonic   7.000000000E+01 7.000000000E+01
```

- `endf2htm` Warnings:

  1. Build of a section of the HTML page failed because the format hasn't been implemented in ENDF2HTM.
  MF32MT151: Unimplemented

```
At line 2659 of file endf.f
Fortran runtime error: Bad value during integer read
```

- `xsectplotter` Warnings:

1. Generic warning message
   (Error # 2): Warning

   ```
   WARNING: Encountered MT=18 MF=8/10 data (not yet accepted in ENDF format). See option --ignoreMF10Fission
   ```

2. A covariance format not yet supported by fudge (LRF=7 covariances)
   (Error # 3): Cov. unimp. (e)

   ```
   WARNING: skipping LRF=7 resonance covariances!
   ```