Release notes for ENDF/B Development e-029_Cu_000 evaluation

October 13, 2016

- `fudge-4.0` Warnings:
  1. Mislabled emitted particle
     Reading ENDF file: ../e-029_Cu_000.endf (Error # 0): ZAP messed up

     ```
     WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
     ```
  2. FIXME: Generic fudge unimplemented message
     reaction label 1: e- + Cu + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)

     ```
     WARNING: Checking not yet implemented for energyLoss type data
     ```
  3. FIXME: Generic fudge unimplemented message
     reaction label 2: e- + Cu [excitation] / Product: e- (Error # 0): Generic unimp (c)

     ```
     WARNING: Checking not yet implemented for energyLoss type data
     ```
- `fudge-4.0` Errors:
  1. Calculated and tabulated thresholds don't agree
     reaction label 0: e- + Cu [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch

     ```
     WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
     ```
  2. Calculated and tabulated thresholds don't agree
     reaction label 1: e- + Cu + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch

     ```
     WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
     ```
  3. Calculated and tabulated thresholds don't agree
     reaction label 2: e- + Cu [excitation] / Cross section: (Error # 0): Threshold mismatch

     ```
     WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
     ```
  4. Calculated and tabulated thresholds don't agree
     reaction label 3: e- + e- + Cu1s1/2 / Cross section: (Error # 0): Threshold mismatch

     ```
     WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8943.200000000001 eV!
     ```
  5. Calculated and tabulated thresholds don't agree
     reaction label 4: e- + e- + Cu2s1/2 / Cross section: (Error # 0): Threshold mismatch

     ```
     WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1086.1 eV!
     ```
  6. Calculated and tabulated thresholds don't agree
     reaction label 5: e- + e- + Cu2p1/2 / Cross section: (Error # 0): Threshold mismatch

     ```
     WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 958.53 eV!
     ```
  7. Calculated and tabulated thresholds don't agree
     reaction label 6: e- + e- + Cu2p3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 937.49 eV!
```

8. Calculated and tabulated thresholds don't agree
   reaction label 7: e- + e- + Cu3s1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 121.26 eV!
```

9. Calculated and tabulated thresholds don't agree
   reaction label 8: e- + e- + Cu3p1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 80.5 eV!
```

10. Calculated and tabulated thresholds don't agree
    reaction label 9: e- + e- + Cu3p3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 77.86 eV!
```

11. Calculated and tabulated thresholds don't agree
    reaction label 10: e- + e- + Cu3d3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.09 eV!
```

12. Calculated and tabulated thresholds don't agree
    reaction label 11: e- + e- + Cu3d5/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.800000000000001 eV!
```

13. Calculated and tabulated thresholds don't agree
    reaction label 12: e- + e- + Cu4s1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.11 eV!
```

- `xsectplotter` Warnings:

  1. Mislabled emitted particle
     Error: ZAP messed up

```
stderr while processing crossSection

      WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
... [2 more lines]
```