BNL ENDF Plans

D.A. Brown, NNDC

BROOKHAVEN NATIONAL LABORATORY

a passion for discovery

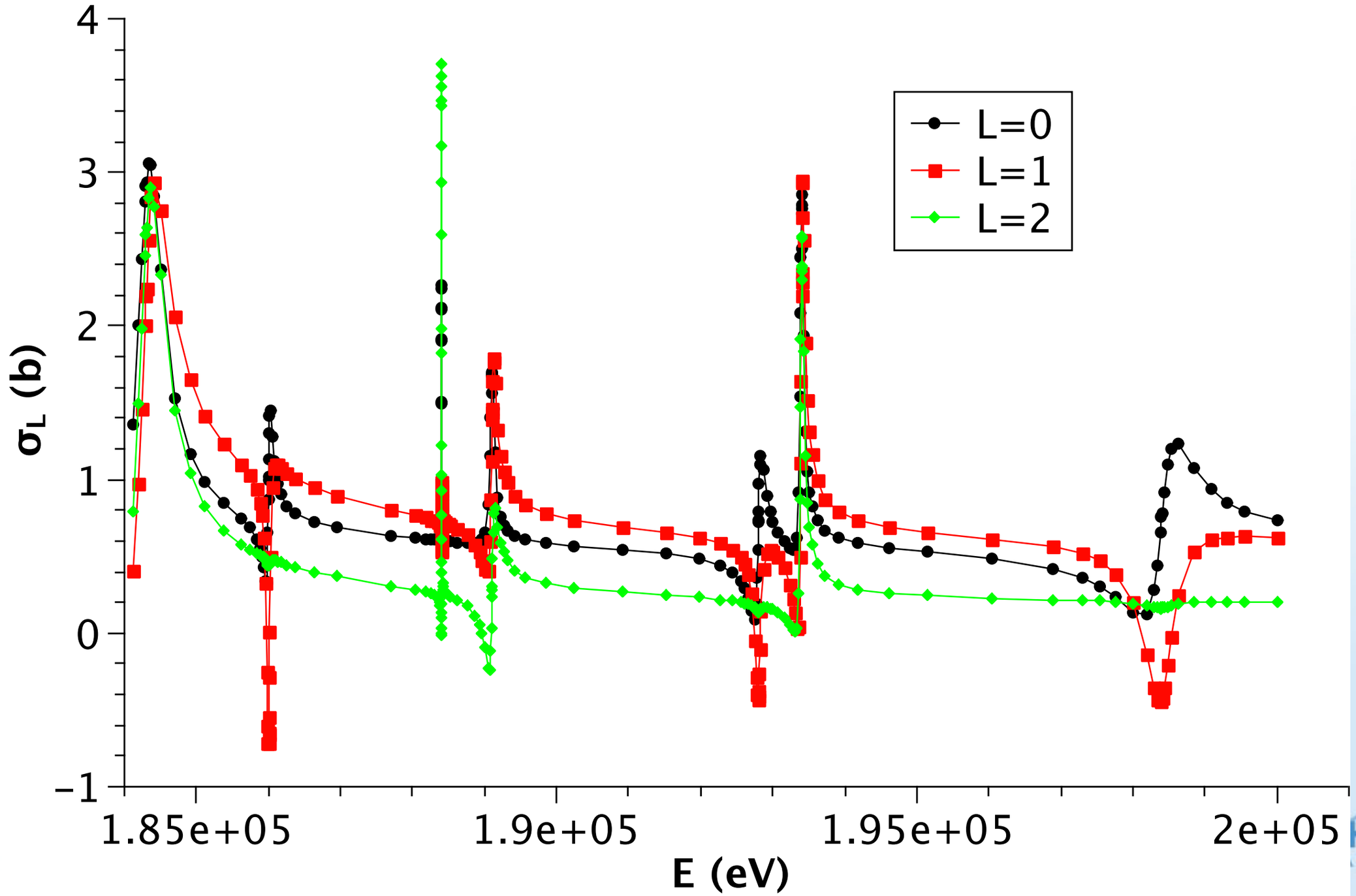
U.S. DEPARTMENT OF ENERGY | Office of Science

Neutron incident data

- **Zr: Aim to finish Q2 FY14**
  - ☑ MLBW -> angular distributions
  - ☑ Said's new RRR
  - ☐ Rerun with new EMPIRE soft-rotor OMP
  - ☐ Glue it all together
  - ☐ Validation
- **Fe:**
  - ☑ CIELO team set up
  - ☐ Get through all Fe data
  - ☐ Fit it
  - ☐ New RRR from ORNL/CEA
  - ☐ Glue it all together
  - ☐ Validation

The ^{90}Zr angular distribution
(zoomed view)

$$d\sigma_{el}/d\Omega = (4\pi)^{-1} \sum_L \sigma_L P_L(\mu)$$



ENDF/B-VII.1 Decay Data Sub-library, future plans

- **Known errors:**
  - ^{98m}Y Correct P_n value
  - ^{86}As Correct P_n value
  - ^{90}Kr Fix rfs for 2nd ndk
- **Corrections due to wrong ENSDF files:**
  - ^{92}Rb, ^{227}Th
- **Enhancements:**
  - ^{40}K Give continuum beta spectrum (4- to 0+ transition)
  - Use beta intensities from TAS measurements:
    - ^{95}Sr, ^{140}Cs, ^{95}Y, ^{143}La, ^{145}La, ^{141}Cs, ^{143}Ba, ^{91}Rb, ^{93}Rb, ^{144}La, ^{94}Rb

Nucleus	Summation JEFF-3.1 FY ENDF/B-7.11 DDSL	Recommended ENDF/B-7.1	Recommended JEFF-3.1.1
235U(thermal)	1.568	1.585	1.620
239Pu(thermal)	0.603	0.645	0.650
238U(fast)	4.509	4.265	4.618

Should it be revised?