UT-BATTELLE

ORNL Cross-Section Processing Status

Michael E. Dunn,
Maurice Greene,
Nuclear Science and Technology Division

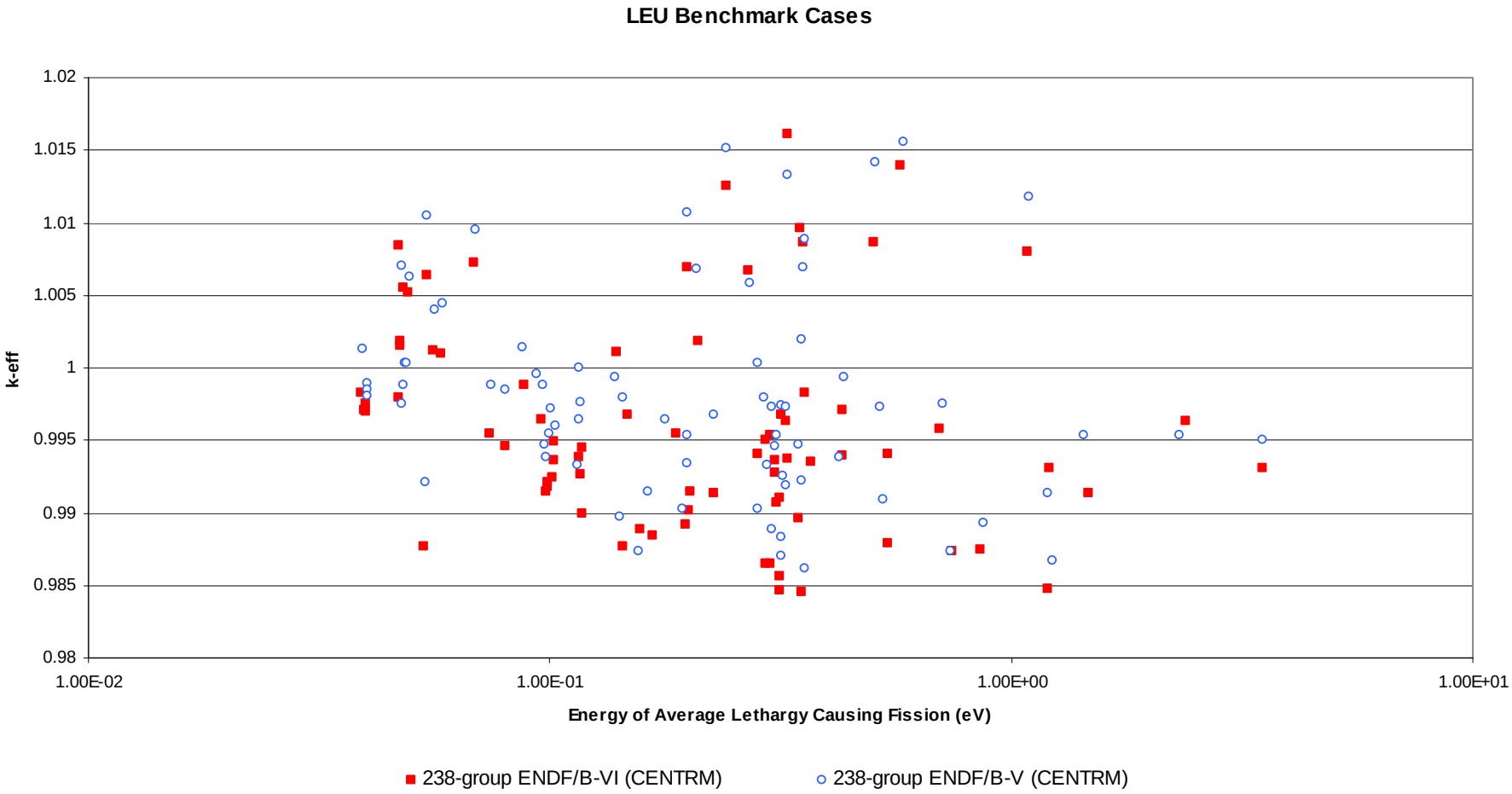
Cross Section Evaluation Working Group Meeting
Brookhaven National Laboratory
November 2 – 4, 2004

OAK RIDGE NATIONAL LABORATORY
U. S. DEPARTMENT OF ENERGY

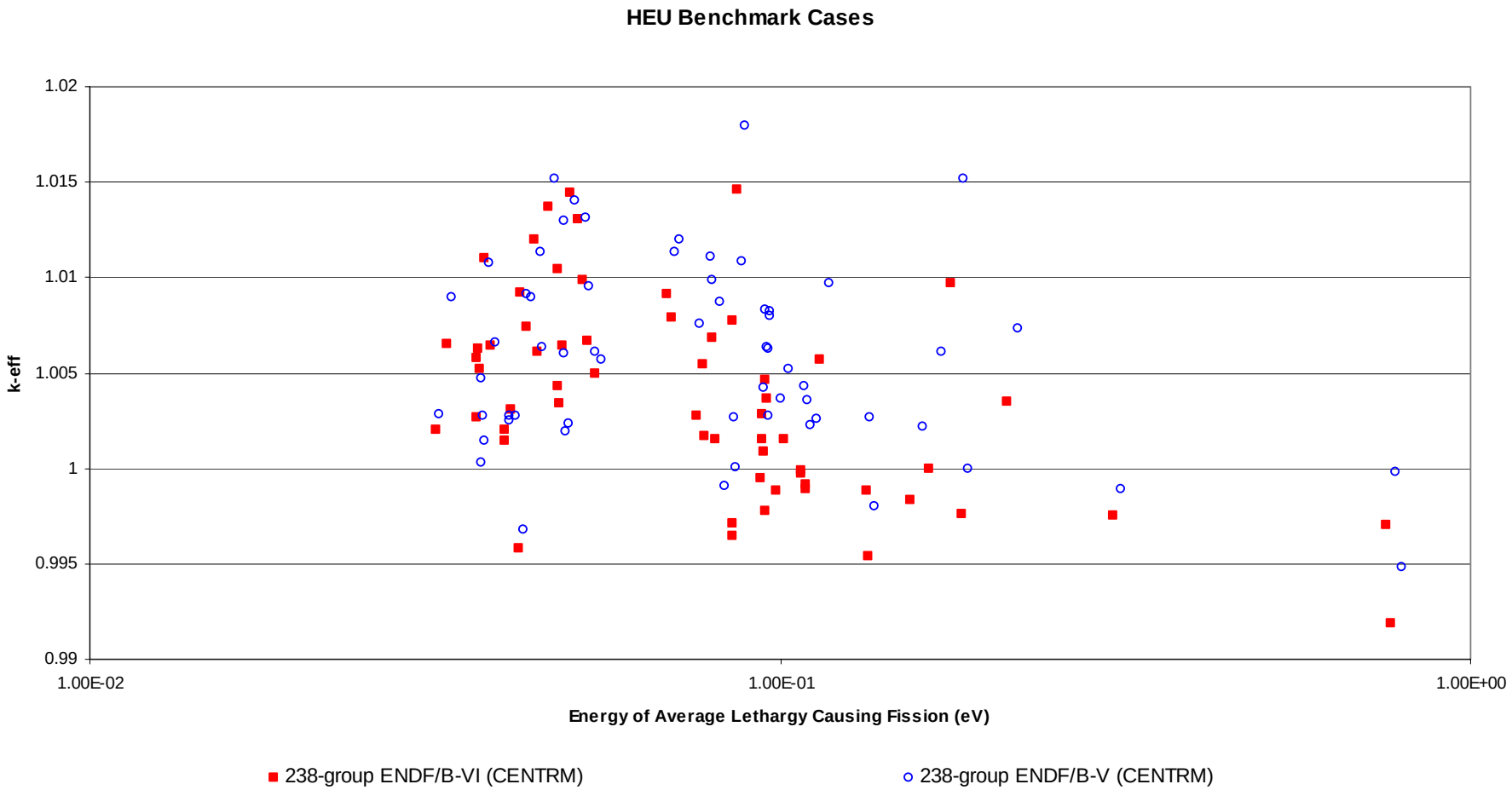
AMPX Status

- ENDF/B-VI Multigroup Library Development
  - Produced ENDF/B-VI Release 7 libraries for SCALE 5
    - 238-group neutron library
    - Continuous-energy neutron library for CENTRM module in SCALE:
      - Pointwise discrete ordinates code used in resonance self-shielding calculations
      - Generate problem-dependent self-shielded multigroup cross-sections based on continuous-energy solution of slowing down equation
  - Performed testing with 273 criticality benchmark cases
  - Plan to release ENDF/B-VI libraries with next SCALE 5 update in CY 2005
  - Additional development activities during FY 2005
    - ENDF/B-VI 421-group neutron library
    - ENDF/B-VI coupled neutron-gamma library
    - Testing with ENDF/B-VII evaluations

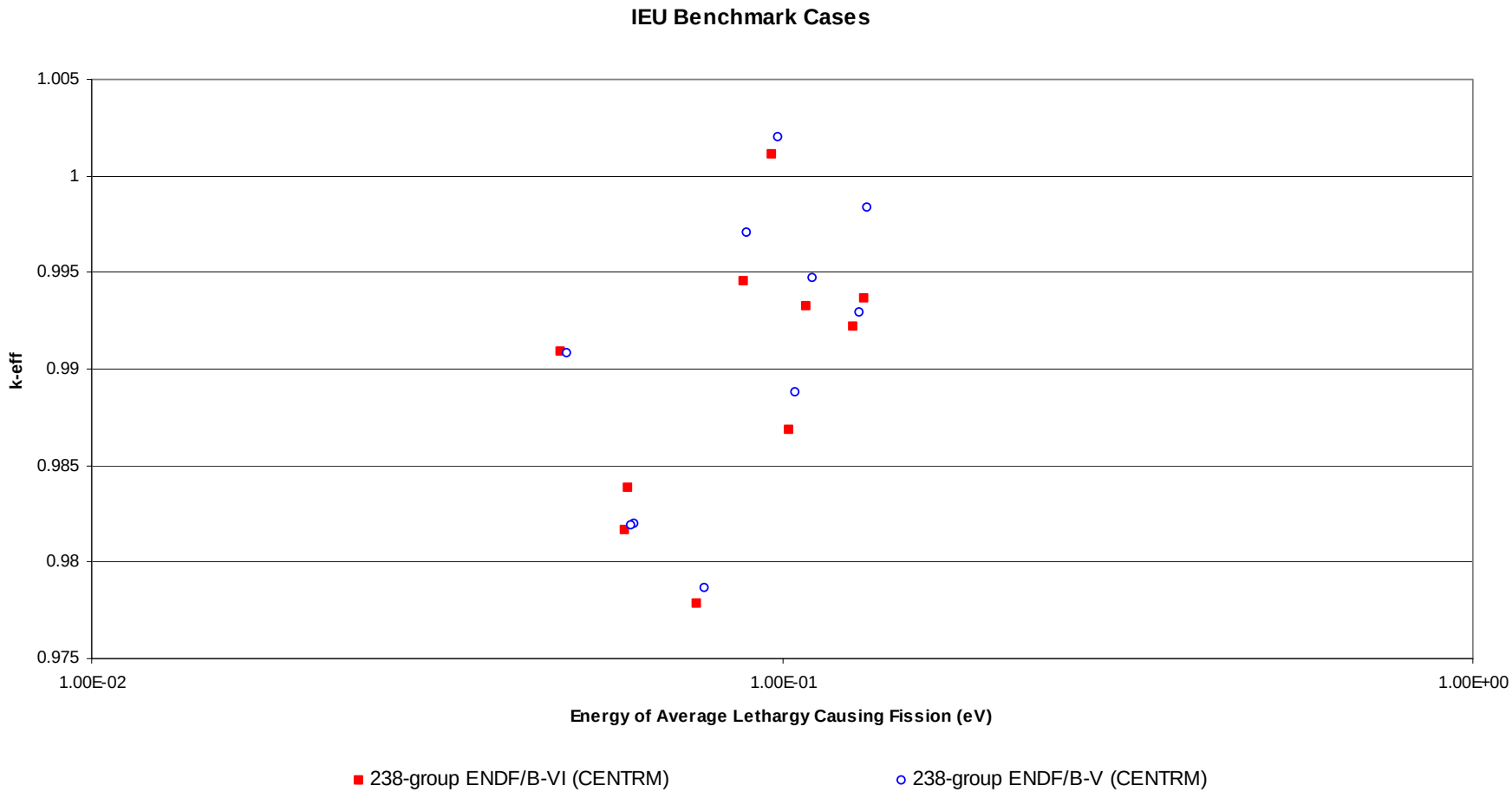
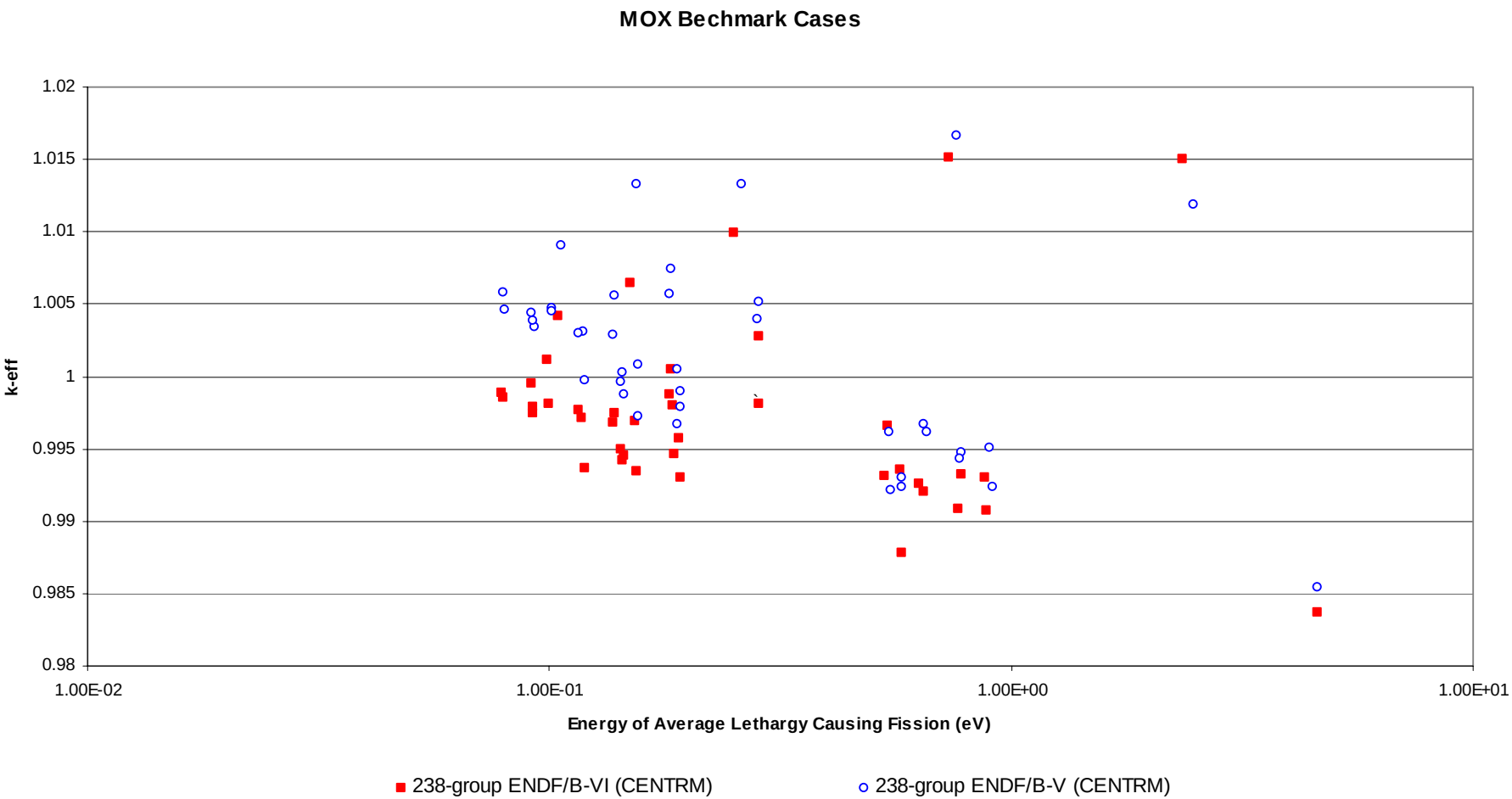
ENDF/B-VI Library Testing with SCALE 5



ENDF/B-VI Library Testing with SCALE 5



ENDF/B-VI Library Testing with SCALE 5



ENDF/B-VI Library Testing with SCALE 5