

Some overall objectives:
for consistent philosophies

Use new/recent accurate measurements of resonances & other key data (PFNS, PFGS,...) & theory advances

Maintain the good integral performance of integral criticality and reaction rates

- build upon the large experience & effort devoted in the last 2 decades to ensuring excellent performance

Add to this good integral performance, e.g. better model new RPI semi-integral scattering data; Pu thermal (Sg34); ²³⁵U-capture-sens. Assemblies, ...

Evaluations for CIELO represent our best knowledge (exp, theory,); use IAEA standards, IRDFF; excitation functions evaluated largely from experiment if well-determined by exp.

General next steps: Goals for completion by May

Integral testing leads & CIELO isotope leads identify key validation experiments & validation objectives.

Explore new some high-impact options, to identify if they are feasible, or if they should be ruled out for CIELO1.0

- thermal ^{235}U Kornilov-type PFNS; Other PFNS mods?

Create starter-files, *probably in this order*

- ^1H – ENDFVII.1 unchanged to start
- ^{238}U – take Capote/Trkov file (future Res. to be added)
- ^{235}U – Leal's prelim. res res.+Romaine's team
- ^{239}Pu – SG34 (Noguere..)+Kawano's team
- ^{16}O – Plompen, Kunieda team
- ^{56}Fe – Leal prelim RR, + Herman team

Some specific challenges

238U, rather good shape, given we think the IRMM/CERN..
resonance updates will be similar to current *238U* resonances

- *REFIT* new analysis included when available
- incorporate conclusions from *PFNS* team

235U

- evaluate *235U* capture in res region & 2.25 keV – 20 MeVs
- collaborate with fast actinide team on new inelastics
- incorporate conclusions from *PFNS* team

239Pu

- use SG34
- collaborate with fast actinide team on new inelastics
- incorporate conclusions from *PFNS* team (Talou, Capote et al.)

Some specific challenges

1H, await standards

16O

- *evaluate n,a based on experiment (e.g. Pronyaev), for consideration; R-matrix theorists study extent to which theory can understand this change*

- *build file that uses the new low-energy total*
- *elastic scattering: focused team of R-matrix+integral*
- *incorporate conclusions from PFNS team (Talou, Capote et al.)*

56Fe

- *figure how to make a starting file! JEFF?*
- *include new Leal RR*

advance understanding of inelastic scattering