

Minutes of the CIELO meeting

NEA, Issy-les-Moulineaux, France
29 November 2012

Chadwick began the meeting with a description of the motivation for CIELO. Then, the pilot project was described, which is initially proposed as a WPEC subgroup for 3 years. This is a collaboration of specialists from around the world to identify, and aim to substantially reduce, discrepancies in our understanding of neutron cross sections - initially for 6 important nuclei: ^1H , ^{16}O , ^{56}Fe , $^{235,238}\text{U}$ and ^{239}Pu . The pilot project may also lead to the creation of ENDF-6 evaluated CIELO files that each regional project would have the choice of accepting (or adapting) for themselves.

Feedback was given from the various regional efforts and projects: JEFF, ENDF, JENDL, South Korea, Russia, China, IAEA, NEA, TENDL. The general sense was positive, and all regional projects were supportive of providing specialists, if available, to work on the CIELO pilot project to address, and possibly resolve, existing discrepancies in our understanding. The most commonly cited reasons for support were the possibilities for increased quality in the product, and the need for increased efficiency via pooling our resources. Concerns were noted by some (JENDL, JEFF, BROND) that risks exist that this could lead to reduced funding from regional governments. We all agreed care is needed to ensure funding is not jeopardized - and indeed sustained funding is needed. JENDL was supportive of the initial pilot project collaboration idea, but is not ready to support a CIELO evaluated library that would be adopted by JENDL. The IAEA kindly noted various ways they would contribute: (a) via existing CRPs that are relevant (e.g. PFNS, standards); (b) via technical contributions of IAEA staff; (c) via IAEA library management computational tools; and (d) via possible future IAEA meetings / support structures. The NEA also kindly noted their support for CIELO, first as a potential WPEC subgroup (assuming WPEC agrees), and secondly via future possible organization options.

The group then discussed the scope of the project. The 6 nuclides noted above were viewed by all as a good first step that is already ambitious. People suggested priorities that included ^2H , ^{23}Na , FPs, alloying materials (e.g. Mo) as next steps.

The group briefly discussed working methods, how to resolve differences, etc, but there was insufficient time to come to conclusions. This will be discussed in future CIELO meetings.

Importantly, there was a discussion of various possible participants in a future CIELO WPEC subgroup. The names below are only possibilities, not commitments.

Actinides

ENDF: Kawano, Talou, Leal, Herman, Brown, Thompson, Vogt, Kahler

JEFF: Romain, Bauge, Noguere, Plompen, Sublet, Rochman, Koning, De Saint Jean, Schillebeeckx, Kodeli,

IAEA: Capote, Forrest, and standards

JENDL: O. Iwamoto

Trkov (IAEA, ENDF, and JEFF collaborations)

S. Korea: Kim

Russia: Pronyaev, Ignatyuk, Piksaikin, Manokhin

China: Chen Guochang

¹⁶O

ENDF: Hale, Lubitz, Roubtsov, Leal, Kahler, Paris, Kawano

JEFF: Plompen, Sublet, Kodeli, CEA (tbd)

JENDL: Kunieda

Russia: Pronyaev

China: tbd

IAEA: Capote

⁵⁶Fe

ENDF: Herman, Brown, Leal, MacFarlane, Kawano

IAEA: Capote

JEFF: Plompen, Koning, Vaglio-Gaudard, Sublet, Kodeli

Trkov (IAEA ENDF, and JEFF collaborations)

JENDL: O. Iwamoto, Nobuyukuki

China: Xu Ruirui, tbd

Russia: Pronyaev

Mark Chadwick, December 11, 2012