

# International Nuclear Data Evaluation Network (INDEN) Meeting on the Evaluation of Light Elements

IAEA, Vienna, Austria 30 to 31 August 2018 Meeting Room VIC MOE15

#### ADOPTED AGENDA

### Thursday, 30 August

- 08:30 09:00 Registration (IAEA Registration Desk, Gate 1)
- 09:00 09:30 Opening Session

Welcoming address (Arjan Koning, NDS Section Head)

Election of Chairman and Rapporteur

Adoption of the Agenda

#### 09:30 – 17:30 Presentations by participants (~ 40 min each)

- 1) P. Dimitriou, A. Trkov: Introduction to INDEN II
- 2) LANL R-matrix work on  $n + {}^{9}Be$  and  $n + {}^{14}N$ , G. Hale (LANL)
- 3) CEA contribution to Sodium nuclear data evaluation, P. Archier (CEN Cadarache)
- 4) Status of experimental data for n-induced reactions on <sup>16</sup>O, S. Kopecky (EC-JRC)
- 5) A new <sup>9</sup>Be(p,n) model of Geant4 and aspects of effective field theories for light nuclei, T.-S. Park (Sungkyunkwan Univ.)
- 6) Assessment of two-body and gamma-production cross-sections with EXFOR, I. Thompson (LLNL)
- 7) Global fitting of <sup>7</sup>Be using GLS, Z. Chen (Tsinghua Univ.)
- 8) Preliminary results of  $n + {}^{15}N$  analysis, S. Kunieda (JAEA)
- 9) R-matrix analyses and evaluation work on light nuclei:  $n + {}^{28,29,30}Si$ ,  $n + {}^{16}O$ ,  $\alpha + {}^{17,18}O$ , M. Pigni (ORNL)
- Progress towards a global R-matrix fit of the <sup>15</sup>N system at low energy, R. deBoer (Univ. Notre-Dame)
- 11) T. Srdinko (TUV)

Coffee break(s) as needed

#### (12:30 – 14:00 Lunch break)

#### **19:00** Dinner at a restaurant downtown (see separate information in folder)

## Friday, 31 August

## 09:00 – 17:00 Round Table Discussion – Drafting of report

#### Topics for discussion on systems:

- Neutrons on <sup>9</sup>Be; <sup>14,15</sup>N, <sup>23</sup>Na at energies up to 20 MeV

What needs to be done? When were the last evaluations done? What new experimental data have become available? Are new evaluations needed?

- Issues with R-matrix fitting and evaluation:
  - How is the resolved-resonance region (RRR) and unresolved-resonance region connected (URR)?
  - $\circ~$  How are RRR, URR and statistical model regime connected? How are fluctuations treated?
- Data processing? Codes and methods (charged particles)
- Other items from CM on Charged-particle induced reactions:
  - Plans for new fits of nuclear reaction: Data assessments, data error checking, use of previous fits, etc.
  - o Going above dissociation thresholds: Is there a general method?
  - Can we extend R-matrix theory to higher energies by any simple and welldefined method (to deal with large number of open channels)? – related to point above.
  - Analysis of the  ${}^{3}$ He( $\alpha$ , $\gamma$ ) ${}^{7}$ Be data with AZURE2
  - <sup>27</sup>Al+p work done with AZURE2

How  ${}^{12}C(p,p)$  and  ${}^{12}C(a,a)$  scattering would be extremely useful as charged particle standard reactions, similar to the way  ${}^{12}C(n,n)$  is a neutron standard.

INDEN II project organization:

- How is the work going to be organized? Priorities, evaluators, timeline.
- Next meeting

Drafting of the summary report

Coffee break(s) as needed

12:30 – 14:00 Lunch break