

Recent Activities in Atomic and Molecular Data at the IAEA

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The Atomic and Molecular Data (AMD) Unit [1], in the Nuclear Data Section of the IAEA, is dedicated to the provision of evaluated data on atomic, molecular and plasma-material interaction that are relevant for nuclear fusion research. In addition to hosting Technical Meetings of experts to address specific data needs, the AMD Unit also organizes 3 – 4 year long Coordinated Research Projects (CRPs) to facilitate collaborative research between 10 – 15 research groups with the aim of producing and evaluating data within a focused domain. Ongoing CRPs that will be discussed are:

- *Data for Atomic Processes of Neutral Beams in Fusion Plasma* (2017 – present) [2]
- *Atomic Data for Vapour Shielding in Fusion Devices* (2019 – present) [3]

The AMD Unit has also initiated the Global Network for the Atomic and Molecular Physics of Plasmas (GNAMPP) [4], a consortium of research groups working in the area of fundamental atomic and molecular physics relevant to plasma processes. In bringing together theoreticians, experimentalists and fusion plasma modelers, GNAMPP provides a forum for the evaluation, validation and dissemination of data, the benchmarking of relevant modelling codes and the formulation of research guidelines and priorities.

References

- [1] <https://www-amdis.org/>
[2] <https://www-amdis.org/CRP/neutral-beams>
[3] <https://www-amdis.org/CRP/vapour-shielding>
[4] <https://www-amdis.org/GNAMPP/>