

## Workshop on Input Data for Plasma Modeling

Eindhoven University of Technology

Organizers: Gerrit Kroesen, Mark Kushner, Jan van Dijk, Anita Peeters, Peter Koelman

Venue: Academisch Genootschap, Parklaan 93, 5613 BC Eindhoven

Date: Friday April 22, 2016

Recently, the availability of reliable input data for plasma modeling has been attracting an increasing level of attention. At this moment, the international platform LXcat is available ([www.lxcat.net](http://www.lxcat.net)), an open-access website for collecting, displaying, and downloading electron and ion scattering cross sections, swarm parameters (mobility, diffusion coefficient, etc.), reaction rates, energy distribution functions, etc. and other data required for modeling low temperature plasmas. This facility enables users in plasma modeling to use reliable input data, which has been verified for correctness and applicability.

This facility, however, does not have any data on plasma chemistry or on photon induced processes. Neither are surface processes covered. In previous meetings, notably at ICPIG in Iasi, Romania, July 2016, initial discussions have been held on the idea of extending LXcat to include the above-mentioned processes.

On Friday April 22, 2016, the TU/e will organize a one day workshop on this topic. Questions to be addressed are:

- To which extent do we go into chemistry?
- Which chemical systems?
- How to verify the data for correctness and completeness?
- Who will set up and maintain the website?
- How do we ask users to refer to the data?
- Do we include photon induced processes?
- Do we include surface processes?

Invited speakers are:

- Leanne Pitchford (Laplace, Toulouse)
- Peter Bruggeman (University of Minnesota)
- Mark Kushner (University of Michigan)
- Klaus Bartschat (Drake University)
- Miles Turner (Dublin City University)
- Erik Neyts (University of Antwerp)
- Sergey Pancheshnyi (ABB)
- Luis Alves (IST Lisbon)

The location is the Meerlezaal in the Academisch Genootschap, Parklaan 93, Eindhoven. This location is within easy walking distance from the city center of Eindhoven, where the hotels are, and the Eindhoven University of Technology.

**Tentative program:**

- 09:00 – 09:20 Introduction by Jan van Dijk
- 09:20 – 09:40 Mark Kushner
- 09:40 – 10:00 Leanne Pitchford
- 10:00 – 10:20 Miles Turner
- 10:20 – 10:50 Coffee
- 10:50 – 11:10 Klaus Bartschat
- 11:10 – 11:30 Erik Neyts
- 11:30 – 11:50 Peter Bruggeman
- 11:50 – 12:10 Luis Alves
- 12:10 – 12:30 Sergey Panchesnyi
- 12:30 – 13:30 Lunch
- 13:30 – 14:30 Conclusions and definition of action items
- 14:30 – 15:30 Drinks and bites