

Abstract Submitted
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Online platform for simulations of ion energy distribution functions behind a plasma boundary sheath¹ ALEXANDER WOLLNY, MOHAMMED SHIHAB, RALF PETER BRINKMANN, Ruhr University Bochum, INSTITUTE FOR THEORETICAL ELECTRICAL ENGINEERING TEAM — Plasma processes, particularly plasma etching and plasma deposition are crucial for a large variety of industrial manufacturing purposes. For these processes the knowledge of the ion energy distribution function plays a key role. Measurements of the ion energy and ion angular distribution functions (IEDF, IADF) are at least challenging and often impossible in industrial processes. An alternative to measurements of the IEDF are simulations. With this contribution we present a self-consistent model available online for everyone. The simulation of ion energy and ion angular distribution functions involves the well known plasma boundary sheath model by Brinkmann [1-4], which is controlled via a web interface (<http://sheath.tet.rub.de>). After a successful simulation run all results are evaluable within the browser and ready for download for further analysis.

- [1] R.P. Brinkmann, *J. Phys. D: Appl. Phys.* **44**, 042002 (2011)
- [2] R.P. Brinkmann, *J. Phys. D: Appl. Phys.* **42**, 194009 (2009)
- [3] R.P. Brinkmann, *J. App. Phys.* **102**, 093303 (2007)
- [4] M. Kratzer et al., *J. Appl. Phys.* **90**, 2169 (2001)

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