

**Current position**

Staff Scientist, MPI for Plasma Physics, Garching  
Group Leader of the PMI Group in the Division “Plasma Edge and Wall“ (E2M),  
MPI for Plasma Physics, Garching

**Previous positions**

Deputy Head of Materials Research Division, MPI for Plasma Physics, Garching  
Group Leader of “Reactive Plasma Processes Group”

**Scientific degrees**

PhD in Experimental Physics, University of Würzburg (1988)  
Habilitation in Experimental Physics, University of Greifswald (1998)

**Recent research topics**

Plasma-surface interaction, hydrogen retention in tungsten, influence of radiation damage on hydrogen retention in tungsten, helium retention in tungsten, sputtering of steel

**Awards**

Otto Hahn Medal of the Max-Planck Society (1989)

**Publications (5 most important)**

- **W. Jacob**, Surface Reactions during Growth and Erosion of Hydrocarbon Films (Invited Review), *Thin Solid Films* 326, 1 (1998) [doi:10.1016/S0040-6090\(98\)00497-0](https://doi.org/10.1016/S0040-6090(98)00497-0)
- **L. Gao, W. Jacob, U. von Toussaint, A. Manhard, M. Balden**, et al., Deuterium Supersaturation in Low-energy Plasma-loaded Tungsten Surfaces, *Nucl. Fusion* 57, 016026 (2017) [doi:10.1088/0029-5515/57/1/016026](https://doi.org/10.1088/0029-5515/57/1/016026)
- **K. Sugiyama, M. Balden, S. Elgeti, T. Höschen, W. Jacob**, et al., Erosion of EUROFER Steel by Mass-selected Deuterium Ion Bombardment, *Nucl. Mater. Energy*, 16, 114 (2018) [doi:10.1016/j.nme.2018.05.021](https://doi.org/10.1016/j.nme.2018.05.021)
- **R. Arredondo, M. Oberkofler, K. Schmid, T. Schwarz-Selinger, W. Jacob**, et al., SIESTA: A High Current Ion Source for Erosion and Retention Studies, *Rev. Sci. Instrum.* 89, 103501 (2018) [doi:10.1063/1.5039156](https://doi.org/10.1063/1.5039156)
- **L. Gao, A. Manhard, W. Jacob, U. von Toussaint, M. Balden**, et al., High-flux Hydrogen Irradiation-induced Cracking of Tungsten Reproduced by Low-flux Plasma Exposure, *Nucl. Fusion* 59, 056023 (2019) [doi:10.1088/1741-4326/ab0915](https://doi.org/10.1088/1741-4326/ab0915)