Workshop 3: Pulsed high power plasmas for the synthesis of nanostructured thin films

Organizing committee
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Workshop purpose

The driving force behind this workshop is to discuss latest findings in the field of HiPIMS. HiPIMS is a cutting edge PVD technology used for deposition of thin films with advanced properties. Focus of the workshop will be on properties of the HiPIMS plasma and on the thin film growth process under a high ion flux irradiation. In particular the correlation of plasma characteristics to thin film performance will be addressed. The talks will encompass all aspects of the HiPIMS process, from plasma diagnostic and plasma modelling, to the growth processes at the substrate.

Invited speakers (each talk, 30 min including discussion)

11.00	Arutiun Ehiasarian (Sheffield Hallam University, UK) High Power Impulse Magnetron Sputtering - the Age of Adolescence
11.30	Diederik Depla (Ghent University, Belgium) Lessons from modelling DC reactive magnetron sputtering for HIPIMS users
12.00	**Lunch**
13.30	Grzegorz Greczynski (Linköping University, Sweden) Synchronized metal-ion irradiation as a way to control growth of transition-metal nitride alloy films during hybrid HIPIMS/DCMS co-sputtering
14.00	Kostas Sarakinos (Linköping University, Sweden) Control of nanoscale atomic arrangement in multicomponent thin films by temporally modulated vapour fluxes
14.30	**Coffee break**
15.00	Tiberiu Minea (University Paris Sud, France) What can we learn about HiPIMS process from the multidimensional plasma modeling?
15.30	Christian Maszl (Ruhr-Universität Bochum, Germany) Localized travelling ionization zones and their importance for the HiPIMS process
16.00	Nikolay Britun (University of Mons, Belgium) Visualizing the ground state particle dynamics in HiPIMS discharges
16.30	**Concluding remarks**