

ISPC Summer School and 14th European Summer School

The symposium is preceded by the 14th EU Summer School on Low Pressure and Thermal Plasmas nearby in Bad Honnef. The level of the course is aimed at Ph.D.-students in first year Diploma- and M.-Sc.-students in last year.

The aim of the course is to acquaint the participants with the up-to-date status of the field. The basic principles of plasma physics will be summarized at the beginning of the course. The course will offer a broadening of knowledge in plasma physics, and in the interaction of plasmas with surfaces including a description of advanced diagnostics. All lectures and discussions will be held in English.



Physikzentrum Bad Honnef

The Schools are chaired by:

Chairman: Prof. Dr. J. Winter, Bochum
Co-Chairmen Prof. Dr. M.C.M. van de Sanden, Eindhoven
Prof. Dr. J. Heberlein, Minnesota

Organization: Dr. M. Böke / P. Burkhardt

Well-known experts in the field will present lectures in the following areas:

- Fundamentals of plasma physics
- Plasma sources
- Thermal and low pressure plasmas
- Atomic processes
- Electron kinetics
- Diagnostics and plasma spectroscopy
- Modelling
- Plasma-surface interactions

The school will consist of two separate parts which run most of the time in parallel, an introduction into the physics of low pressure plasmas and an introduction into the physics of high pressure and thermal plasmas. The initial four lectures will be common lectures introducing basic plasma physics and experimental methods to generate low pressure and thermal plasmas. The school ends again with a common lecture on atmospheric pressure glow discharges and microplasmas. The low pressure part of the school is organized by J. Winter/M. Böke (Ruhr-University Bochum) and the thermal plasma school is organized by J. Heberlein (Univ. Minnesota).

The Schools are supported by:

Centrum voor plasmaphysica en stralingstechnologie:
Arbeitsgemeinschaft Plasmaphysik



Center for Plasma Science and Technology
Graduate School 1051
Research Department Plasma at Ruhr-University Bochum



Wednesday, 22. July 2009

Auditorium
17:00-20:00
Arrival

Thursday, 23. July 2009

Auditorium
8:30-10:00 Low and high pressure school Introduction to Plasma Physics I <i>M. Liebermann</i> University of Berkeley, Berkeley, US
10:00-10:30 Coffee Break
10:30-12:00 Low and high pressure school Introduction to Plasma Physics II <i>M. Liebermann</i> University of Berkeley, Berkeley, US
12:00-13:30 Lunch
13:30-15:00 Low and high pressure school Generation of low pressure plasmas <i>U. Czarnetzki</i> Ruhr-University of Bochum, Bochum, Germany
15:00-15:30 Coffee Break
15:30-17:00 Low and high pressure school Thermal plasma thermodynamics and transport properties Thermal plasma characterization <i>P. Fauchais</i> University of Limoges, France
18:00-19:00 Dinner

Friday, 24. July 2009

Room A	Room B
8:30-10:00 Low pressure school Electrical Diagnostics of Low pressure Plasmas <i>N. Braithwaite</i> Open University, Milton Keynes, UK	8:30-10:00 High pressure school Thermal Plasma Generation, DC, RF <i>J. Heberlein</i> University of Minnesota, US
10:00-10:30 Coffee Break	
10:30-12:00 Low pressure school Optical Diagnostics of Low pressure Plasmas <i>U. Fantz</i> University of Augsburg, Augsburg, Germany	10:30-12:00 High pressure school Plasma as processing medium <i>M. Boulos</i> University of Sherbrooke, Canada
12:00-13:30 Lunch	
13:30-15:00 Low pressure school Plasma Modeling <i>A. Bogaerts</i> University of Antwerp, Antwerp, Belgium	13:30-15:00 High pressure school Plasma Spraying PLasma deposition of finely structures thin coatings <i>P. Fauchais</i> University of Limoges, France
15:00-15:30 Coffee Break	
15:30-17:00 Low pressure school Advanced optical diagnostics of plasmas <i>G. Kroesen</i> TU Eindhoven, Eindhoven, Netherlands	15:30-17:00 High pressure school Wire arc spraying Plasma transferred arc deposition Thermal plasma CVD <i>J. Heberlein</i> University of Minnesota, Minnesota, US
18:00-19:00 Dinner	
Auditorium	
20:00-21:30 Popular Evening Lecture Plasmas in Hollywood <i>A. von Keudell</i> Ruhr-University Bochum, Bochum, Germany	

Saturday, 25. July 2009

Room A	Room B
8:30-10:00 Low pressure school Low pressure Plasma Applications <i>H. Kersten</i> University of Kiel, Kiel, Germany	8:30-10:00 High pressure school Bulk Plasma processes, heat transfer Spherodization and densification of powders Nanoparticle generation Plasma waste treatment Metallurgical processing <i>M. Boulos, J. Heberlein</i> University of Sherbrooke, Canada University of Minnesota, US
10:00-10:30 Coffee Break	
Auditorium	
10:30-12:00 Low and high pressure school Atmospheric pressure glow discharges <i>F. Massines</i> PROMES CNRS, Perpignan, France	
12:00-12:30 Closing	
12:30-13:30 Lunch	
13:30- Departure	