

European Marie Curie Training Course

"Low Temperature Plasma Physics: Basics and Applications"

September 26 – October 5, 2004

and

"Master Class: Biotechnical and Medical Applications"

October 5 – 8, 2004

Physikzentrum Bad Honnef

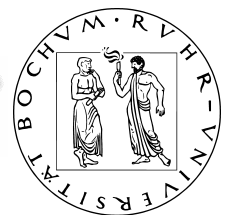


Chairman: Prof. Dr. J. Winter, Ruhr-University Bochum
Co-Chairman: Prof. Dr. D.C. Schram, Technical University Eindhoven
Organization: Dr. M. Böke, Ruhr-University Bochum

Support:



Arbeitsgemeinschaft
PLASMAPHYSIK



School Program

Sunday, Sept. 26: Arrival/Registration

Monday, Sept. 27:

- 08.30-08.45 Welcome and introduction
(D.C. Schram, *TU Eindhoven*)
- 08.45-10.45 Fundamentals of Gas Discharges I
(*N.St.J. Braithwaite, The Open University Oxford*)
- 11.00-12.00 Fundamentals of Gas Discharges II
(*M.C.M. van de Sanden, TU Eindhoven*)
- 14.00-15.00 Microwave Discharges, Surface Wave Discharges
(*J. Berndt, U Bochum*)
- 18.00 Conference Dinner**

Tuesday, Sept. 28:

- 08.30-10.30 ECR and Helicon
(*M. Krämer, U Bochum*)
- 11.00-12.00 Diagnostics I: Basics of Plasma Spectroscopy
(*U. Fantz, U Augsburg*)
- 14.00-15.00 CCP and ICP
(*W. Goedheer, FOM Rijnhuizen*)
- 15.30-17.30 Poster Session
- 19.00-21.30

Wednesday, Sept. 29:

- 08.30-10.00 Thermal Plasmas I – Basics
(*P. Fauchais, U Limoges*)
- 10.30-12.00 Thermal Plasmas II – Applications
(*P. Fauchais, U Limoges*)
- Afternoon Outing**

Thursday, Sept. 30:

- 08.30-10.30 Dielectric Barrier Discharge
(*U. Kogelschatz*)
- 11.00-12.00 MC Models of Electron and Ion Transport
(*S. Longo, U Bari*)
- 14.00-15.00 Diagnostics II: IR – Techniques
(*J. Röpcke, INP Greifswald*)
- 15.30-17.30 Evening Lecture: The Universe – A World of Plasmas
(*H. Kersten, INP Greifswald*)
(a popular evening lecture with experiments)

Friday, Oct. 1:

- 08.30-10.30 Global Model
(*M. Turner, U Dublin*)
- 11.00-12.00 Electron Kinetics in Atomic and Molecular Plasmas
- 14.00-15.00 Fluid Modeling of Plasma Discharges
(*L. Alves, U Lisbon*)
- 15.30- ???? Workshop (for interested students): Let's build a Boltzmann Solver
or: play with a black-box Boltzmann code

Saturday & Sunday: Free for excursions on an individual basis (several offers will be available).

Monday, Oct. 4:

- 08.30-10.30 Diagnostics III: Advanced Optical Diagnostics: Laser Diagn., TALIF, CRD-Spectroscopy, ...
(N. Sadeghi, U Grenoble)
- 11.00-12.00 Dusty Plasmas
- 14.00-15.00 *(Chr. Hollenstein, U Lausanne)*
- 15.30- 17.30 Plasma Crystals
(U. Konopka, MPG Garching)

Tuesday, Oct. 5:

- 08.30-10.00 Molecule Formation in Plasmas in the Presence of Surface Association Processes
(D.C. Schram, TU Eindhoven)
- 10.15-11.45 Surface Processes during Thin-Film Growth
(A. von Keudell, U Bochum)
- 11.45 *Closing*

End of the School

Program of the Master Class: Biotechnical and Medical Applications

Tuesday, Oct. 5: Arrival/Registration

Wednesday, Oct. 6:

08.30-10.00 Plasma Science in Medical Technologies

(F. Rossi, Ispra)

10.30-12.00 Plasmachemical Modification of Polymers for Biomedical Applications

(R. d'Agostino, U Bari)

14.00-15.30 Microstructure Techniques in Surgery / Biocompatibility of Implants

(S. Esenwein, Bochum)

16.00-17.30 Plasma Tissue Interaction

(E. Stoffels, TU Eindhoven)

Thursday, Oct. 7:

08.30-10.00 Microfluidics and Plasma Induced Chemical Micro Patterning

(A. Ohl, INP Greifswald)

10.30-12.00 Plasma Sterilization

(P. Awakowicz, U Bochum)

14.00-15.30 Excimer Lamps for Desinfection

(A. Voronov, Heraeus Noblelight)

16.00-17.30 Discussion and Closing

Friday, Oct. 8:

08.30-10.30 *Departure*

End of the Master Class

Further information at: <http://www.ep2.rub.de/cpt>