

Friday May the 2nd

18:30- 20:00: Welcome reception at Hotel Novotel

20:00: Diner at the hotel

Scientific Program

Saturday May the 3rd

Session 1

Presentation of new scientific results of the LEIF teams

Chairman: E. Salzborn

9:15 -9:20: J.P. Briand: welcome

9:20 -10:00: N. Stolterfoht: nanocapillaries

10:00 - 10:30 Coffee break

10:30 -10:45: M. Benhachoum: the images of the ECR ion beams

10:45-11:45: R. Schuch and G. Viktor: energy-loss and neutralization in large-angle ion-surface scattering. Relaxation times and depth of hollow atoms inside the bulk

11:45-12:15: P. Scheier: reactions of multiply charged molecular ions with surfaces

12:15 -14:00: Lunch

Session 2

Selected Topics A:

Chairman/ moderator: P. Roncin

14:00 – 16:00

Material properties and surface damages by HCI and Lasers.

1) Low power lasers and low charge states. What is the influence of target electronic excitations/defects in sputtering of insulators?

fs laser spectroscopy of self trapped excitons

G. Petite 20 min

Threshold behavior of potential sputtering

F. Aumayr 10 min

Kinematically assisted potential sputtering

F. Aumayr 10 min

2) High power lasers and high charge states

Surface modifications by ns and fs power lasers.

G. Petite 10min

Dots induced by HCI on hydrogenated silicon surfaces

J.P. Briand 5 min

Effects of high charge states, Mass spectroscopy

Effects on semiconductors

Open discussion

16:00- 16:30: coffee break

Selected topics B

Chairman /moderator: N. Stolterfoht

16:30 – 18:30

The interaction of HCl above and below the surface. Mechanism of formation of hollow atoms

1) Introduction	N. Stolterfoht	
2) Interaction below the surface	J.P. Briand	10 min
	F. Aumayr	10 min
	R. Schuch	10 min
Interaction of HCl with diamonds	M. Benhachoum	5 min
3) Interaction above the surface	F. Aumayr	10 min
	J.P. Briand	10 min
Low charge state ion interaction	S. Daveau	5 min

20:00: Diner

Sunday May the 4th

Morning: Visit of Petit Trianon

12:15 – 14:00: Lunch

Free Afternoon

20:00 Diner at the Hotel

Session 3

Selected topics C

Chairman/moderator: R. Schuch

21:00- 22:30

Kinematics of HCl above dielectrics.

1) Mesoscopic charging up		
Charging of nanocapillaries	N. Stolterfoht	10min
Charging of crystal surface studied under grazing incidence	P. Roncin	5-10 min
Irradiation of diamond surfaces	J.P. Briand	5 min
2) Microscopic charging up		
Backscattering of ions	J.P. Briand	20 min
	F. Aumayr	10min
Hole mobility, Self trapping of two holes.	P. Roncin	10 min.

Monday May the 5th

Session 4

Meeting with manufacturers

Tutorial lectures on the properties of the interaction of Highly Charged Ions with Surfaces

Chairman: P. Scheier

9:00- 9:30: G. Giardino: Highly Charged Ion production and deceleration

9:30- 10:15: F. Aumayr: atoms and electrons ejection from surfaces following HCI bombardment

10:15-10:45: Coffee break

10:45- 11:45: J.P. Briand: interaction of HCI with surfaces

11:45 -12:15: N. Stolterfoht: passing HCI through pinholes, patterning

12:15-14:00: Lunch

Forum Research -Industry

Chairman: G. Petite.

14:00- 14:45:E.Platzgummer: requirements of HCI based tools and the market situation for HCI

14:30-15:00: A Girard: the LETI: CEA collaboration on gate oxide lithography

15:00 15:30: (speaker to be confirmed): the industrial applications of the ECR sources

Discussion

16:30 -16:45 Coffee break

Panel session: Industrial Applications of Highly Charged Ions

Moderator: J.P. Briand

16:45- 17:30

17:30: Adjourn