

# Meeting on Nano-focusing Optics and Round Table Discussion on Diamond Crystals



**6 – 7 March 2006**  
**Venue: Seminar room of the EMBL**

## **Programme of the** *Meeting on Nano-focusing Optics*

### Monday, March 6

10h00-11h30	<b>Possibility to visit the optics labs</b>	contact: C. Morawe (morawe@esrf.fr)
12h00-13h00	<i>Lunch at the ESRF/ILL canteen - guestroom</i>	
13h30-14h00	<b>Registration – Seminar room of the EMBL</b>	
14h00-14h15	Welcome and introduction	Organisers & S. Larsen (DoR ESRF)
<b>Session 1 (Moderator: C. Morawe)</b>		
14h15-14h30	Nano-focusing coordination at ESRF	J.Susini (ESRF)
14h30-15h00	Diffraction limited focusing	J.Maser (APS)
15h00-16h15	<b>Activity reports (10min + 5min)</b>	
15h00-15h15	X-ray optics developments at the Paul Scherrer Institute	C. David (PSI)
15h15-15h30	Nanometer resolution X-ray analysis using standing waves and modified Fresnel diffraction structures	A. Erko (Bessy)
15h30-15h45	NSLS-II and Kinoform Lenses	K. Evans-Lutterodt (NSLS)
15h45-16h00	The X-ray lens CLESSIDRA	W. Jark (Elettra)
16h00-16h15	Nano-focusing optics for Diamond	K. Sawhney (Diamond)
16h15-17h00	<i>Coffee in the EMBL/ILL hallway</i>	
<b>Session 2 (Moderator: A. Snigirev)</b>		
17h00-18h30	<b>Activity reports (10min + 5min)</b>	
17h00-17h15	The proposed MAX IV facility	R. Nyholm (MAX-Lab)
17h15-17h30	Brief description of the possibilities of diffractive elements based on Si microelectronics in Barcelona	S. Ferrer (Alba)
17h30-17h45	Fresnel optics at the ESRF	R. Barrett (ESRF)
17h45-18h00	X-ray waveguides for present and future sources	S. Lagomarsino (IFN-CNR)
18h00-18h15	Nano-focusing by X-ray waveguides	T. Salditt (Universität Göttingen)
18h15-18h30	Kirkpatrick Baez systems: needs and manufacturing capabilities	O. Hignette (ESRF)
19h00	<i>Bus departure to the restaurant 'Pique Pierre' at Saint Martin le Vinoux</i>	
22h30	<i>Return to the ESRF &amp; hotels in town</i>	

## Tuesday, March 7

### Session 3 (Moderator: R. Barrett)

09h00-10h00	<b>Activity reports (10min + 5min)</b>	
09h00-09h15	Nanofocusing with refractive optics	C. Schroer (Desy)
09h15-09h30	Compound refractive lenses made from SU8	J. Mohr (Anka)
09h30-09h45	Compound refractive lenses at the ESRF	A. Snigirev (ESRF)
09h45-10h00	Focusing requirements at the PETRA III Beamlines	E. Weckert (Desy)

### Session 4 (Moderators: J. Susini, C. Morawe)

10h00-10h30	<b>Round table discussion around the topics</b> <ul style="list-style-type: none"><li>• Available technologies and resources</li><li>• Identification of present and future needs in nano-focusing</li></ul>	
10h30-11h00	<i>Coffee in the EMBL/ILL hallway</i>	
11h00-12h00	<b>Continuation of round table discussion</b> <ul style="list-style-type: none"><li>• Pathways to improved coordination between European laboratories</li><li>• Contractual aspects</li><li>• Next steps</li></ul>	
12h00-12h30	Meeting summary	Organisers and DoR
12h45-14h00	<i>Lunch at the ESRF/ILL canteen - guestroom</i>	

## **Programme of the *Round Table Discussion on Diamond Crystals* Status and future of high quality single crystal diamond for X-ray optical applications**

**Moderator: C. Morawe**

14h00-14h15	Diamond single crystals for X-ray optical applications – where we are.	J. Morse (ESRF)
14h15-14h25	Cooling and mounting of diamonds – case study and future prospects	P. Van Vaerenbergh (ESRF)
14h25-14h35	HPHT diamond for synchrotron applications	H.P. Godfried (Element Six BV)
14h35-15h45	Round table discussion on the status and future for production of high quality single crystal diamond for X-ray optical applications	
15h45-16h00	Meeting summary	
16h00-16h30	<i>Coffee in the EMBL/ILL hallway</i>	