

Small-angle X-ray scattering at high brilliance European synchrotrons for bio- and nano-technology

EU Research Infrastructures Action
Design Studies

- **SAXIER** aims at development and testing of major hardware and software components of SAXS beamlines to find and implement novel solutions adequately exploiting the high brilliance sources.

SAXIER summary

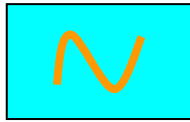
- **SAXIER** is co-ordinated by the Hamburg Outstation of the EMBL as a Design Study under the Infrastructure Programme of the Sixth Framework Programme. The European Commission is contributing €3.6 million out of a total budget of €7.2 million. The project includes Europe's major SAXS laboratories at synchrotrons in France, the UK, Germany and Italy.
- **Duration:** 48 months
- **Start date:** 1 December 2005
- **EU Officer:** Maria Douka

Partners of SAXIER

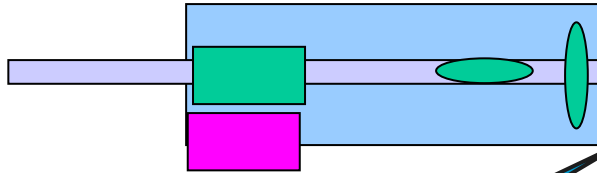
No	Organisation (name, city, country)	Short name	Participating groups
1	European Molecular Biology Laboratory, Hamburg Outstation, Germany	EMBL	Group of small-angle scattering (D.Svergun) <i>Project coordinator</i>
2	European Synchrotron Radiation Facility, Grenoble, France	ESRF	Soft condensed matter group (C.Riekel)
3	French Synchrotron SOLEIL, Gif sur Yvette, France	SOLEIL	SWING beamline (J. Perez)
4	IBR, Austrian Academy of Sciences, Graz, Austria Elettra, Trieste, Italy	IBR/Elettra	Austrian SAXS beamline (P.Laggner, H.Amenitsch)
5	Synchrotron Radiation Source, Daresbury Laboratory, U.K	SRS	NCD beamline group (G.Grossmann, S.Hasnain)

Components of a SAXS beamline

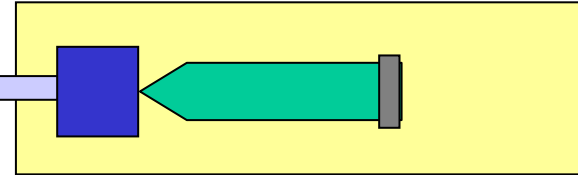
X-ray source



Beamline optics



Sample environment



Data analysis



Nanobeam and
micro-tools
(DS2, ESRF)

Micro-Raman
spectroscopy
(DS3, ESRF)

On-line gel
filtration
(DS4, SOLEIL)

Cryogenic
technology
(DS5, EMBL)

Microfluidic devices
(DS6, IBR)

Gas phase
scattering (DS7,
SRS)

Automated data
collection/analysis
(DS8, EMBL)

Organizational activity 2006

- A kick-off meeting was organized (Jan, 30, 2006)
- Management Committee of the Consortium was established
- Project Web site was created (<http://www.saxier.org/>)
- SAXIER related booth was presented at SAS-2006 conference
- Recruitment (pre Dec, 06): 1 trainee, 1 predoc, 7 postdocs
- Publications: 7 papers in peer-reviewed scientific journals, 23 presentations at international conferences
- 2 workshops were co-sponsored
- Contacts with other EU-funded projects (SPINE-2, 3D-REPertoire, VIZIER, X-MTB, NMR-Life) and with potential users of SAXIER prototypes were established

Aim of the present Workshop

"... A dedicated workshop on SAXS synchrotron instrumentation and on the add-ons to the 3rd generation SAXS synchrotron beamlines will be organized in Year 1, where the plans of the consortium will be presented to seek the feedback from the potential users..."

Annex 1 to SAXIER contract,

September 14, 2005