



No. I/09 - 31 March 2009

PSI photon, neutron and muon user facilities newsletter

Editorial

Dear colleagues,

We are proud to present the first issue of the PSI Facility News, an electronic newsletter with issues targeted at the users of the PSI facilities. PSI operates on one campus three major user facilities for research in physics, biology, and chemistry: the Swiss Light Source, SLS, (3rd generation synchrotron), the Swiss spallation neutron source, SINQ, and the Swiss Muon Source, S μ S, with a total of approximately 4000 visits from users each year. A combination of these three complementary methods offers new opportunities to perform a full spectrum of analysis on a single site. PSI Facility News will inform you quarterly about recent scientific highlights, upcoming calls for proposals, news and events. We are open to receive your suggestions for the information or topics you would like to see covered in this letter (slsuo@psi.ch).

New calls for proposals

SLS: Next call for the PX beamlines will be launched on May 8, 2009 with the submission deadline on June 15, 2009.

See our call schedule

<http://sls.web.psi.ch/view.php/users/experiments/proposals/opencalls/index.html>

SINQ: The next deadline for the submission of beamtime proposals for SINQ will be May 15, 2009, midnight.

More information http://sinq.web.psi.ch/sinq/sinq_call.html

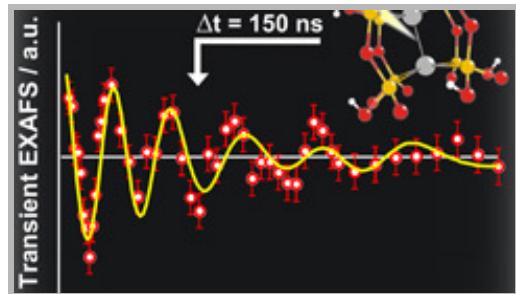
S μ S: The next deadline for the submission of beamtime proposals for the three S μ S instruments GPS, LTF, and GPD will be June 1, 2009, midnight.

More information

http://lmu.web.psi.ch/facilities/next_call.html

An overview about all pro-

Research highlights

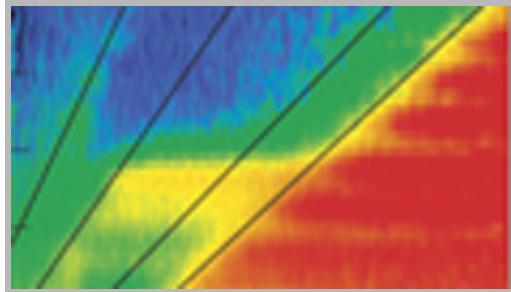


<http://sls.web.psi.ch/view.php/science/lsy/highlights/in->

[dex.html#mozTocId504251](http://num.web.psi.ch/highlights/index.html#mozTocId504251)

SLS: Exciting heavy metal - Retrieving structures in photocatalysis

Photocatalysts play an important role in a broad range of applications, from photochemical conversion of light into chemical energy through to initiating novel chemical reactions. One family of compounds that has attracted much attention is the dinuclear d₈-d₈ platinum, rhodium and iridium complexes that have a highly reactive electronic excited state. When photo-excited with light these systems have been shown to extract H-atoms from a variety of substrates and initiate electron transfer processes. In this work we examine the structure of the triplet excited state of a diplatinum member of this photocatalyst family. **Read the full story here** <<http://sls.web.psi.ch/view.php/science/lsy/highlights/index.html#mozTocId504251>>



<<http://num.web.psi.ch/highlights.html#hoppler>>

SINQ: Giant superconductivity-induced modulation of the ferromagnetic magnetization in a cuprate-manganite superlattice

(J. Hoppler et al., Nature Materials 8, 315 (2009))

Artificial multilayers offer unique opportunities for combining materials with antagonistic orders such as superconductivity and ferromagnetism and thus to realize novel quantum states. In particular, oxide multilayers allow the combination of the high superconducting transition temperature of cuprates with the versatile magnetic properties of colossal-magnetoresistance manganites. However, apart from some exploratory work, the in-depth investigation of their unusual properties has only

posal submission deadlines of the PSI facilities can be obtained here <<http://user.web.psi.ch/user/deadlines.html>> .

Upcoming events

June 2-4: International workshop on the spectroscopy and coherent scattering endstation and associated instrumentation at the European XFEL, PSI Villigen, Switzerland

Information and registration <<http://www.xfel.eu/scs-workshop-2009>>

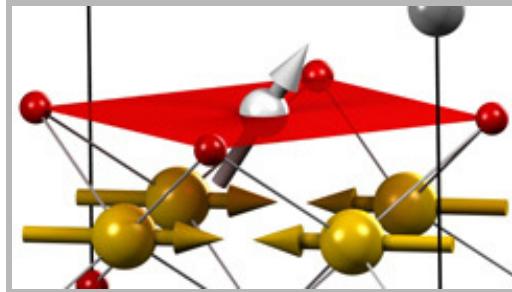
July 19-24: CORPES09, ETH Zurich, Switzerland
International workshop on strong correlations and angle-resolved photoemission spectroscopy

Information and registration <<http://corpes09.web.psi.ch/>>

August 1-7: PSI Summer School on condensed matter research with a focus on functional materials for energy, environment and health applications.

August 8-10: 20 summer school students will have the opportunity to follow a practical training at the PSI

just begun. **Read the full story here** <<http://num.web.psi.ch/highlights.html#hoppler>>



<<http://num.web.psi.ch/highlights.html#luetkens>>

S μ S: Iron-based superconductors

The competition of magnetic order and superconductivity is a key element in the physics of all unconventional superconductors. μ SR has provided fundamental results about both the ground states and their interplay in the Fe-pnictides. In two independent studies structural and electronic phase diagrams were established. (H. Luetkens et al., *Nature Materials* 8, 305 (2009) and A. Drew et al., *Nature Materials* 8, 310 (2009)). **Read the full story here**

<<http://num.web.psi.ch/highlights.html#luetkens>>

News from the SLS Users Association SUSA

The first joint Users' Meeting of all three major PSI User Facilities (JUM@P 09) will be held on October 12-13, 2009 at PSI. The meeting will be organized in a bottom-up manner so that the users can influence the program by voting on certain workshops. **Please find more information and the registration here** <<http://user.web.psi.ch/jump09>>

Read more about SUSA <<http://user.web.psi.ch/susa>>

photon, neutron and muon facilities.

Information and registration <<http://school.web.psi.ch/>>

October 12-13: JUM@P 09:

First Joint User meeting at PSI: This initiative will bring together the users of the three major facilities at PSI: SINQ, SLS, S μ S.

More information

<<http://user.web.psi.ch/jump09>>

Facility news

SLS: SIS and ADRESS beamlines have been upgraded and will be fully operational in the second half of 2009.

Two new beamlines, Phoenix and Xtreme, are under construction and will see first light at the end of 2009. Both beamlines are for X-ray absorption spectroscopy, with Phoenix focussing on environmental and materials research, and Xtreme providing measurements under extreme conditions.

SINQ/S μ S: Restart of both facilities after the annual accelerator shutdown is expected for April 14, 2009

Announcements

Facility publications

Obtain a comprehensive list of publications sorted by different criteria:

- **SLS publications** <http://sls.web.psi.ch/view.php/science/lsy/publications/lsy_publications.html>
- **SINQ & SμS publications** <http://num.web.psi.ch/publ_all.htm>

Upcoming news from XFEL

Follow the development of the X-ray Free Electron Laser (XFEL) at PSI: **PSI XFEL** <<http://fel.web.psi.ch/>>

Proprietary research

A certain fraction of the beamtime at PSI research facilities is reserved for proprietary use. This is handled by **Technology Transfer PSI** <<http://www.psi.ch/industry/technology-transfer>> .

The following **directory** <<http://www.psi.ch/industry/randd-services>> lists services on offer by these facilities.

Imprint

PSI Facility News addresses the users of the PSI large facilities and appears quarterly in English. Any feedback is highly welcome! **More information.** <<http://www.psi.ch/imprint>>

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