Evidence for Degradation of the Chrome Yellows in Van Gogh's *Sunflowers*: A Study Using Noninvasive In Situ Methods and Synchrotron-Radiation-Based X-ray Techniques
L. Monico, K. Janssens, E. Hendriks, F. Vanmeert, G. Van der Snickt, M. Cotte, G. Falkenberg,, B. G. Brunetti, C. Miliani
Angewandte Chemie, **127**(47) (2015) 14129-14133
The study reveals definite changes in the least lightfast variety of the yellow pigments and thus opens questions about possible color alterations in this and other paintings. The authors stress the need for careful monitoring of paintings containing this pigments over time.

Subluminal Propagation of Narrow-band X-Ray Pulses
K.P. Heeg, J. Haber, D. Schumacher, L. Bocklage, H.-C. Wille, K.S. Schulze, R. Loetzsch, I. Uschmann, G.G. Paulus, R. Rüffer, R. Röhlsberger, and J. Evers
Physical Review Letters **114** (2015) 203601
X-ray beam has been made to travel 10,000 times slower than the speed of light by tuning the interaction of light with the nuclei of iron atoms. Controlling X-rays in this way could be useful for high-resolution imaging and other applications.

Revealing Complexity of Nanoparticle Synthesis in Solution by in Situ Hard X-ray Spectroscopy – Today and Beyond
D. Koziej
Chemistry of Materials **28**(8) (2016) 2478–2490
Perspective article within *Up-and-Coming* series presents how modern hard X-ray spectroscopic methods, far from merely providing new tools, are extending the way we study and understand synthesis of complex nanoparticles.

Spectroscopic Studies on Organic Matter from Triassic Reptile Bones, Upper Silesia, Poland
D. Surmik, A. Boczarowski, K. Balin, M. Dulski, J. Szade, B. Kremer, & R. Pawlicki
PloS one, **11**(3) (2016) e0151143
The authors report and discuss the unexpected discovery of molecular signals from proteins present in the blood vessels of triassic-reptile bones.

Interaction of bovine serum albumin (BSA) with novel gemini surfactants studied by synchrotron radiation scattering (SR-SAXS), circular dichroism (CD), and nuclear magnetic resonance (NMR)
W. Gospodarczyk, K. Szutkowski, & M. Kozak
J. Phys. Chem. B **118**(29) (2014) 8652-61
In this paper multiple synchrotron-based experimental techniques have been used in order to study an interaction of three dicationic (gemini) surfactants nad of their importance for the conformation of bovine serum albumin (BSA).

Three-dimensional visualization of fossil flowers, fruits, seeds, and other plant remains using synchrotron radiation X-ray tomographic microscopy (SRXTM): new insights into Cretaceous plant diversity
E.M. Friis, F. Marone, K.R. Pedersen, P.R. Crane, & M. Stampanoni,
Journal of Paleontology **88**(04) (2014) 684-701
The paper presents an application of synchrotron-radiation-based X-ray tomographic microscopy (SRXTM) to the study of mesofossils. The use of SRXTM is found to be essential for resolving critical structural details.

Determination of the electronic and structural configuration of coordination compounds by synchrotron-radiation techniques.
C. Garino, E. Borfecchia, R. Gobetto, J.A. van Bokhoven, & C. Lamberti,
Coordination Chemistry Reviews 277 (2014) 130-186
The authors present a survey of the potential of synchrotron radiation techniques applicable for understanding the structural and electronic properties of coordination compounds.

The most incompressible metal osmium at static pressures above 750 GPa
L. Dubrovinsky, N. Dubrovinskaia, E. Bykova, M. Bykov, V. Prakapenka, C. Prescher, K. Glazyrin, H.-P. Liermann, M. Hanfland, M. Ekholm, Q. Feng, L. V. Pourovskii, M. I. Katsnelson, J. M. Wills, and I. A. Abrikosov; *Nature* **525**(7568) (2015) 226-229.
An international team of scientists led by the University of Bayreuth has created the highest static pressure ever achieved in a lab. Using the double-stage diamond anvil cell the researchers investigated the behaviour of the metal osmium at pressures of up to 770 GPa, by about 130 GPa higher than the previous world record. The experiments were conducted on ID09A (ESRF), ECB (PETRA) and 13-IDD (APS).

Structural complexity of simple Fe_2O_3 at high pressures and temperatures
E. Bykova, L. Dubrovinsky, N. Dubrovinskaia, M. Bykov, C. McCammon, S.V. Ovsyannikov, H.-P. Liermann, I. Kupenko, A.I. Chumakov, R. Rüffer, M. Hanfland, V. Prakapenka *Nature communications* **7** (2016) 10661.
The authors used three synchrotron beamlines to conduct a systematic investigation of the behaviour of iron oxides at pressures over 100 GPa and temperatures above 2,500 K. They discovered some unusual mixed-valence iron oxides e.g. Fe_5O_7 and $Fe_{25}O_{32}$. The single-crystal X-ray diffraction experiments were conducted on ID09A (ESRF), 13-IDD (APS) and P02.2 (PETRA).

Future conferences & workshops

KSUPS'17
12th National Meeting of Synchrotron Radiation Users
Gdańsk (Poland), 4-7 September 2017
http://www.synchrotron.org.pl/

VUVX2016
39th International conference on Vacuum Ultraviolet and X-ray Physics
Zurich (Switzerland), 3-8 July 2016
www.psi.ch/vuvx2016

IWORID 2016
18th International Workshop on Radiation Imaging Detectors
Barcelona (Spain), 3-7 July 2016
iworid2016.com

SFR 2016
Synchrotron and Free electron laser Radiation: generation and application
Novosibirsk (Russia), 4-8 July 2016
indico.inp.nsk.su/event/3/

ICSXNS16
International Conference on Surface X-ray and Neutron Scattering
Stony Brook (USA), 10-14 July 2016
www.bnl.gov/sxns14/

ISSCG-16
16th International Summer School on Crystal Growth
Lake Biwa (Japan), 1-7 August 2016
www.iccge18.jp/isscg16/

ICCGE-18
18th International Conference on Crystal Growth and Epitaxy
Nagoya (Japan), 7-12 August 2016
iccge18.jp

XRM 2016
X-Ray Microscopy Conference 2016
Oxford (UK), 15-19 August 2016
xrm2016.com

BSR16
12th International Conference on Biology and Synchrotron Radiation
Stanford (USA), 21- 24 August 2016
conf-slac.stanford.edu/bsr-2016/

ECM-30
30th Meeting of the European Crystallographic Association
Basel (Switzerland), 28 August – 1 September 2016
ecm30.ecanews.org

SMARTER 5
Fifth Structure elucidation by combining Magnetic Resonance, Computational Modelling and Diffraction
Bayreuth (Germany), 4-8 September 2016
www.smarter5.uni-bayreuth.de

EHPRG -54
The 54th European High Pressure Research Group International Meeting on High Pressure Science and Technology
Bayreuth (Germany), 4-9 September 2016
ehprg2016.org

CMD26
EPS Condensed Matter Division Conference
Colloquium on X-ray spectroscopy of correlated oxides
Groningen (Holland), 4-9 September 2016
cmd26.eu

IBIC 2016
International Beam Instrumentation Conference
Barcelona (Spain), 11-15 September 2016
ibic2016.org

Fifteenth Ukrainian — Polish Symposium on Theoretical and Experimental Studies of Interface Phenomena and their Technological Applications
simultaneously with
Second NANOBIOMAT Conference Nanostructured Biocompatible/Bioactive Materials
Lviv (Ukraine), 12-15 September 2016
www.thomascat.info/Symposium.htm

ISMC2016
The 4th International Soft Matter Conference
Grenoble (France), 12-16 September 2016
ismc2016.org

2016 E-MRS Fall Meeting
European Materials Research Society Fall Meeting (Symposia A - Z, ZU)
Functional Oxides – Synthesis, Structure, Properties and Applications (Symposium Z)
Warsaw (Poland), 19-22 September 2016
www.european-mrs.com/meetings/2016-fall

Debye-Rietveld celebration
Amsterdam (Holland), 22 September 2016
debye-rietveld.nl

The regional ICDD Grant meeting
Lviv (Ukraine) 23-24 September 2016
Contact information: ihor.zavaliy@gmail.com

ECS3
3rd European Crystallography School
Bol (Croatia), 25 September – 2 October 2016
ecs3.ecanews.org

PCCr1
First Pan-African Conference in Crystallography
Dschang (Cameroun), 6-11 October 2016
pccr1-2016.univ-dschang.org

ICPSCG10
International Conference of Polish Society for Crystal Growth
Zakopane (Poland) 16-21 October 2016
icpscg10.pl

OMEE-2017
International Conference on Oxide Materials for Electronic Engineering will be held at Lviv Polytechnic National University (Lviv, Ukraine) on May 29 – Jun 02, 2017. Details will be available soon at http://science.lp.edu.ua/omee-2017, Contact information: crystal@lp.edu.ua

Gordon Research Conference on X-Ray Science
Easton (USA), 30 July – 4 August 2017
www.grc.org/programs.aspx?id=12236

EHPRG -55
55th European High Pressure Research Group Meeting on High Pressure Science and Technology
Poznan (Poland), 3-8 September 2017
www.ehprg.org/meetings.php

IUCR 2017
XXIV Congress & General Assembly of the International Union of Crystallography
Hyderabad (India), 21-28 August 2017
iucr2017.org

SRI2018
13th International Conference on Synchrotron Radiation Instrumentation
Taipei (Taiwan), 11-15 June 2018
www.nsrrc.org.tw/SRI_2018

XAFS18
17th International Conference on X-ray Absorption Fine Structure
Cracow (Poland), 22-27 July 2018
xafs2018.com

Find more at:
www.lightsources.org/events

Synchrotron classifieds

The webpage of PTPS (synchrotron.org.pl) was largely modified. The new structure enables easier navigation among the features. In particular we offer a space for PhD and PostDoc (http://www.synchrotron.org.pl/index.php/en/announcements/phd-studies-in-synchrotron-science) and other job position advertisements (http://www.synchrotron.org.pl/index.php/en/announcements/job-opportunities).
Offers from Polish universities and research institutions are particularly welcome.