



1st Workshop on Application of Laser Plasma Sources
of X-rays and Extreme Ultraviolet (EUV)
in Technology and Science – ALPS 2015
6 - 9 July 2015, Warsaw, Poland

Scientific Programme and Time Schedule

Monday, July 6th, 2015

- 15.00-16.00 Registration
- 16.00-16.15 Opening
- 16.15-17.00 **K. Jabłońska** (Invited lecture)
X-ray absorption spectroscopy
- 17.00-17.45 **M. Marszałek** (Invited lecture)
Application of laser sources in materials science - laser lithography and fabrication of new materials
- 17.45-18.30 **J. Sveklo** (Invited lecture)
EUV modification of Pt/Co/Pt trilayers: structural, morphological and magnetic studies

Tuesday, July 7st, 2015

- 09.00-09.45 **C.M. Heyl** (Invited lecture)
Attosecond source development and applications in Lund
- 09.45-10.30 **H. Hertz** (Invited lecture)
X-ray micro- and nanoimaging with laboratory sources
- 10.30-11.00 Coffee break
- 11.00-11.45 **M. Lekka** (Invited lecture)
Atomic force microscopy in characterization of single cells
- 11.45-12.30 **M. Kado** (Invited lecture)
Live cell imaging with a soft X-ray microscope using a laser-plasma soft X-ray source
- 12.30-13.00 **M. Ayele**
Compact laser plasma soft X-ray source for contact microscopy experiments
- 13.00-15.00 Lunch break
- 15.00-15.45 **H. Stiel** (Invited lecture)
Development and application of high brightness laser plasma based X-ray sources for nanoscale imaging
- 15.45-16.30 **P.W. Wachulak** (Invited lecture)
Imaging techniques using laser plasma soft X-ray and EUV sources
- 16.30-17.00 Coffee break

- 17.00-17.45 **K. Mann** (Invited lecture)
Applications of laser driven EUV/soft X-ray sources and wave front measurements at short wavelengths
- 17.45-18.30 **T. Makimura** (Invited lecture)
Ablation and micromachining using EUV radiation from laser-produced plasma

Wednesday, July 8th, 2015

- 09.00-09.45 **S. Cipiccia** (Invited lecture)
Betatron radiation from electrons in resonant motion in the laser wakefield accelerator bubble regime
- 09.45-10.30 **M. Fajardo** (Invited lecture)
XUV optical properties of XFEL created warm dense matter
- 10.30-11.00 Coffee break
- 11.00-11.45 **E. Foerster** (Invited lecture)
Ultrafast structural changes in crystals studied by pump-probe experiments
- 11.45-12.30 **K. Janulewicz** (Invited lecture)
Approaching 100 fs benchmark for pulse length of high-repetition laser plasma-based X-ray source; application for time-resolved XAS
- 12.30-13.00 **K. Witte**
Broadband laser produced plasma source for X-ray spectroscopy applications in the soft X-ray region
- 13.00-15.00 Lunch break
- 15.00-15.30 **F. Scylla**
Exploring the near-critical regime with dense gas jets
- 15.30-16.00 **G. Bayene**
Laser-discharge hybrid EUV source: comparison of ns vs ps-laser triggering
- 16.00-20.00 Excursion and Dinner

Thursday, July 9th, 2015

- 09.00-09.45 **A. Bartnik** (Invited lecture)
Investigation of photoionized plasmas produced with the use of laser plasma sources of soft X-rays and extreme ultraviolet (EUV)
- 09.45-10.30 **P. Nicolosi** (Invited lecture)
Multilayer optics for space and laboratory applications and their characterization
- 10.30-11.00 Coffee break
- 11.00-11.45 **J. Lekki** (Invited lecture)
Bio-objects irradiation using low energy X-ray pulses

- 11.45-12.15 **D. Adjei**
DNA strand breaks induced by soft X-ray pulses from a compact laser plasma source
- 12.15-12.45 **A. Torrisi**
Development and optimization of a compact “water window” microscope using a SXR gas puff target source
- 12.45-13.00 Summary & Closing
- 13.00-17.00 Lunch

Posters

Daniel Adjei

DNA strand breaks induced by soft X-ray pulses from a compact laser plasma source

Inam Ul Ahad

EUV modification of polymers for biocompatibility control using a laser plasma source

Mesfin Ayele

Soft X-ray contact microscopy using a compact laser plasma source

Henryk Fiedorowicz

Laser plasma sources of soft X-rays and EUV based on a gas puff target

Tomasz Fok

High-order harmonic generation from a laser-irradiated multi-jet gas puff target

H. Lu

Photoionization cross section of calcium computed using TDLDA and RTDLDA codes

Tomas Parkman

Table-top instrumentation for time-resolved SXR excited luminescence spectroscopy

Alfio Torrisi

Development and optimization of a compact “water window” microscope using a SXR gas puff target source

Łukasz Węgrzyński

Ultra-short X-ray pulses produced using a NOPCPA femtosecond laser

Time Schedule

Monday, July 6, 2015		Tuesday, July 7, 2015		Wednesday, July 8, 2015		Thursday, July 9, 2015	
		09.00-09.45	Lecture 4 Christoph HEYL	09.00-09.45	Lecture 12 Silvia CIPICCIA	09.00-09.45	Lecture 16 Andrzej BARTNIK
		09.45-10.30	Lecture 5 Hans HERTZ	09.45-10.30	Lecture 13 Marta FAJARDO	09.45-10.30	Lecture 17 Piergiorgio NICOLOSI
		10.30-11.00	Coffee break	10.30-11.00	Coffee break	10.30-11.00	Coffee break
		11.00-11.45	Lecture 6 Malgorzata LEKKA	11.00-11.45	Lecture 14 Eckhart FOERSTER	11.00-11.45	Lecture 18 Janusz LEKKI
		11.45-12.30	Lecture 7 Masataka KADO	11.45-12.30	Lecture 15 Karol JANULEWICZ	11.45-12.15	Oral 5 Daniel ADJEI
		12.30-13.00	Oral 1 Mesfin AYELE	12.30-13.00	Oral 2 Katharina WITTE	12.15-12.45	Oral 6 Alfio TORRISI
		13.00-15.00	Lunch	13.00-15.00	Lunch	12.45-13.00	Closing
15.00-16.00	Registration	15.00-15.45	Lecture 8 Holger STIEL	15.00-15.30	Oral 3 Francois SCYLLA		
		15.45-16.30	Lecture 9 Przemysła w WACHULAK	15.30-16.00	Oral 4 Girum BAYENE		
16.00-16.15	Opening			16.00-20.00	Excursion & Dinner		
16.15-17.00	Lecture 1 Krystyna JABLONSKA	16.30-17.00	Coffee break				
17.00-17.45	Lecture 2 Marta MARSZALEK	17.00-17.45	Lecture 10 Klaus MANN				
17.45-18.30	Lecture 3 Josif SVEKLO	17.45-18.30	Lecture 11 Tsetuya MAKIMURA				
18.30-20.00	Reception						