

Compact EUV & X-ray Light Sources Incubator Meeting

13-15 November 2013
OSA Headquarters • Washington, DC, USA

HOSTED BY:

Lahsen Assoufid, Argonne National Laboratory, USA; **Sandra G. Biedron**, Colorado State University, USA

CO-HOSTS:

Uwe Arp, National Institute of Standards and Technology, USA; **Ingolf Lindau**, SLAC National Accelerator Laboratory, USA;
Jong-Min Lee, Center for Femto-Atto Science and Technology and Advanced Photonics Research Institute, Gwangju
Institute of Science and Technology, Korea; **Marino Marsi**, Universite Paris Sud, France;
Patrick Naulleau, Lawrence Berkeley National Laboratory, USA

DRAFT AGENDA

Day 1: Wednesday, 13 November 2013

- 12:30** **Lunch & Networking**
OSA Headquarters, 2010 Massachusetts Ave, NW
- 13:30** **Welcome, Goals, and General Information**
Lahsen Assoufid, Argonne National Laboratory, USA
Sandra Biedron, Colorado State University, USA
- 13:45** **Welcome & Update on National Photonics Institute**
Elizabeth Rogan, Chief Executive Officer, OSA, USA
- 14:00** **Plenary Session 1 (Chair: Lahsen Assoufid)**
- Tabletop Coherent High Harmonic Soft X-Rays and Applications in
Nanoscience and Nanotechnology
Margaret Murnane, JILA, University of Colorado, Boulder, USA
- The Use of Light for AFOSR
Enrique Parra, AFOSR, USA
- Channeling Radiation for High-Spectral-Brilliance X-rays
Charles Brau, Vanderbilt University
- 15:30** **Coffee Break**

16:00 **Plenary Session 2 (Chair: Uwe Arp)**
Optimization of Cavity-Enhanced Inverse-Compton Light Sources
John Madey, University of Hawaii, USA

Industrial Applications of High Brightness Laboratory Sources
Wenbing Yun, Xradia, Inc.

17:00 **Information & Goals for Day 2**

17:30 **Dinner**
[Ezme](#), 2016 P Street, NW

Day 2: Thursday, 14 November 2013

8:00 **Breakfast**
OSA Headquarters, 2010 Massachusetts Ave, NW

8:30 **Plenary Session 2, continued (Chair: Uwe Arp)**
Bio-imaging Using Compact Sources
Hans Hertz, Royal Institute of Technology, Stockholm, Sweden

9:00 **Plenary Session 3 (Chair: Patrick Naulleau)**
Semiconductor Industry Needs for Compact EUV Sources
Michael Lercel, SEMATECH

DOE Workshop & Report Summary “Laser Technologies for Accelerators”
Jay Dawson, Lawrence Livermore National Laboratory

10:00 **Coffee Break**

10:30 **Breakout Sessions 1**
Group A: EUV & Soft X-ray Sources
Chair: Patrick Naulleau & Jorge Rocca

Group B: Compact Hard X-ray Sources
Chair: Sandra Biedron & Ingolf Lindau

Group C: FEL, Inverse Compton and Other Spectrally Agile Sources
Chair: Tetsuya Ishikawa & Mark Curtin

- 12:00** **Plenary Session 4 (Chair: Marie-Emmanuelle Couprie)**
Compact X-ray FEL Source
Tetsuya Ishikawa, Director of RIKEN Harima Institute
- Tabletop XFEL with an Optical Undulator
William Graves, Massachusetts Institute of Technology
- 13:00** **Lunch**
- 14:00** **Plenary Session 5 (Chair: Sandra Biedron)**
- Laser-powered Micro-accelerators for Compact Radiation Sources
Joel England, SLAC National Accelerator Laboratory
- Overview of Plasma-Based EUV to Soft X-ray Lasers
*Jorge Rocca, National Science Foundation EUV Engineering
Research Center, Colorado State University*
- The Compact Light Source: a Miniature Synchrotron
Ronald Ruth, SLAC/Stanford University
- 15:30** **Coffee Break**
- 16:00** **Breakout Sessions 2**
- Group A: EUV & Soft X-ray Sources
Chair: Patrick Naulleau & Jorge Rocca
- Group B: Compact Hard X-ray Sources
Chair: Sandra Biedron & Ingolf Lindau
- Group C: FEL, Inverse Compton and Other Spectrally Agile Sources
Chair: Tetsuya Ishikawa & Mark Curtin
- 17:30** **Summary of Day 2, Information and Goals for Day 3**
- 18:00** **Dinner**
[Sette Osteria](#), 1666 Connecticut Avenue, NW

Day 3: Friday, 15 November 2013

- 8:00** **Breakfast**
OSA Headquarters, 2010 Massachusetts Ave, NW
- 8:30** **Session Spokespeople Prepare Breakout Reports**
- 9:00** **Breakout Reports**
Group A Report: EUV & Soft X-ray Sources
Spokesperson: Patrick Naulleau
- Group B Report: Compact Hard X-ray Sources
Spokesperson: Ingolf Lindau
- Group C Report: FEL, Inverse Compton and Other Spectrally Agile Sources
Spokesperson: Mark Curtin
- 10:30** **Coffee Break**
- 11:00** **Panel & Discussion**
Topic: Scientific and research opportunities, technological challenges and roadmap for R&D directions
Moderator: Steve Milton
- 13:00** **Lunch**
- 14:00** **Summary, Conclusions & Next Steps**
- 15:00** **Adjourn**