

2014 International Workshop on EUV and Soft X-Ray Sources

Dublin, Ireland
November 3-6, 2014

Welcome and Introduction
Tuesday, November 4, 2014



Source Workshop -Technical Working Group (TWG)

Reza Abhari (ETH Zurich)
Jinho Ahn (Hanyang University)
Peter Anastasi (Silson)
Sasa Bajt (DESY)
Vadim Banine (ASML)
Klaus Bergmann (ILT-Fraunhofer)
Davide Bleiner (University of Bern)
Vladimir Borisov (Triniti)
John Costello (DCU)
Samir Ellwi (ALSphotonics)
Akira Endo (HiLase)
Henryk Fiedorowicz (Military University of
Technology, Poland)
Torsten Feigl (OptiXfab)
Francesco Flora (ENEA)
Debbie Gustafson (Energetiq)
Ahmed Hassanein (Purdue)
Takeshi Higashiguchi (Utsunomia University)
Larissa Juschkin (Aachen University)
Hiroo Kinoshita (Hyogo University)
Chiew-seng Koay (IBM)
Konstantin Koshelev (ISAN)
Rainer Lebert (Bruker)
Peter Loosen (ILT-Fraunhofer)
Eric Louis (University of Twente)

James Lunney (Trinity College,
Dublin)John Madey (University of Hawaii)
Shunko Magoshi (EIDEC)
Hakaru Mizoguchi (Gigaphoton)
Udo Dinger (Carl Zeiss)
Katsuhiko Murakami (Nikon)
Patrick Naulleau (LBNL)
Katsunobu Nishihara (Osaka University)
Fergal O'Reilly (UCD)
Gerry O'Sullivan (UCD)
Luca Ottaviano (University of L'Aquila)
Yuriy Platonov (RIT)
Martin Richardson (UCF)
Valentino Rigato (INFN-LNL)
Jorge Rocca (University of Colorado)
David Ruzic (Universiy of Illinois)
Akira Sasaki (JAEA)
Leonid Shmaenok (PhysTex)
Emma Sokell (UCD)
Seichi Tagawa (Osaka University)
Hironari Yamada (PPL)
Mikhail Yurkov (DESY)
Sergey Zakharov (NAEXTSTREAM)
Vivek Bakshi (EUV Litho, Inc.) - Organizing Chair
Padraig Dunne (UCD) - Organizing Co-Chair

2014 International Workshop on EUV and Soft X-Ray Sources



ENERGETIQ



Rigaku



GIGAPHOTON

Sponsors



greateyes



meet *in* ireland.com



Fáilte Ireland
National Tourism Development Authority



EUV
LITHO, INC.



Belfield Campus Map

O'Brien Science Center (Science Center East)

| LEGEND | |
|--------|----------------------|
| | career building |
| | academic building |
| | residential building |
| | under construction |
| | traffic zone |
| | pedestrian route |
| | velox route |



Workshop Agenda

Tuesday, November 4, 2014

8:30 AM Announcements (Intro-1)

8:40 AM General Introductions (All)

9:00 AM Session 1: Keynote-1

10:20 AM Break (15 Minutes)

10:35 AM Session 2: HVM EUV Sources

12:45 PM Lunch (60 minutes - Across the hall)

Workshop Agenda

Tuesday, November 4, 2014

- | | |
|----------------|---|
| 1:45 PM | Session 3: Modeling |
| 2:45 PM | Session 4: FEL 1 |
| 4:05 PM | Break and Group Photo (20 mins.) |
| 4:25 PM | Session 5: FEL 2 |
| 6:10 PM | Session 7: Poster Session |
| 7:30 PM | Depart for Off-site Dinner |

Let us stay on time and have a good discussion!

- Workshop's success depends on your participation – so please ask questions!
- Speakers - please observe the time limits for your presentations to leave time for Q&A
 - Keynote - 35 +5 minutes Q&A
 - Invited / Regular - 17 + 3 minutes Q&A
 - Review talks -25 + 5 minutes Q&A
 - Short presentation - 7 + 3 minutes Q &A
- Timer
 - Green – OK Yellow – Q&A Time Red – Time Over
- Session chairs will use hand held signs as well
- Remote control advances your slides and also has the laser pointer

Poster Session (Today)

- Poster session and reception will be on the 4th (top) floor of this building
- Posters can be setup during lunch or afternoon break
- Please use three color dots (color of dots is not significant) for voting for the best poster
- Top three posters will receive awards during tonight's dinner

Workshop Survey

(Wednesday at 11 AM)

- 1. Please list top three challenges for following sources and potential R&D projects to address them:
 - High Power EUV Sources (100-250, 250-500 & >500 W)
 - Metrology EUV Sources (Mask inspection, Resist testing, Reflectometer etc.)
 - Soft X-ray Sources (Various applications)
- 2. What are the key challenges in the reduction of footprint of FEL Sources to support EUVL?
- 3. What topic (s) /presentations (s) you found most valuable in this year's workshop agenda?
- 4. Which speakers and topics you will like to have in the 2015 Source Workshop agenda?
 - Please let us know if you will like to contact the potential speakers on the behalf of the workshop.

Steering Committee Meeting

**Newman House, Thursday 8:30 AM-10:30 AM
(Open to TWG and workshop attendees)**

- Summary of workshop survey
- Highlights and lessons learned
- Feedback from participants on how to continue to improve the workshop
- Come and help us continue to make Source workshop more productive!