



MIRAI Seminar
Including Large-Scale Research Facilities, and their Potential for Research and Society
Lund, 17-19 October 2017

SCIENTIFIC SESSION – MATERIALS SCIENCE

Venue: AF Building
Sandgatan 2, Lund

- Group 1: Materials for energy devices + Advanced characterization of materials
Moderators: Professor Aleksandar Matic, Chalmers & Professor Hideki Kuwahara, Sophia
- Group 2: Low dimensional materials and surfaces + Bioinspired materials
Moderators: Professor Yasuchika Hasegawa, Hokkaido & Associate Professor Ove Andersson, Umeå

17 October 2017

Session 1	Welcome and Introduction to Materials Science workshop, Moderator: Ulf Karlsson LiU
13.30	Welcome & AIM of the workshop Swedish perspective, <i>Professor Ulf Karlsson, LiU</i>
13.45	AIM of the workshop Japanese perspective, <i>Professor Nobuo Kimizuka, Kyushu University</i>
14.00	Presentation of participating universities, <i>Moderator: Aleksandar Matic, Chalmers</i>
15.00	Key note speech, <i>Professor Toyoki Kunitake, Kyushu University</i>
15.30	Fika (Fika=Coffee break)
Session 2	Parallel sessions #1
16.00	Parallel sessions (Group 1 & 2) for workshop topics. 3 presentations + 35 min questions/discussions. <i>Group 1: Feng Gao, Linköping; Sadafumi Nishihara, Hiroshima; William Brant & Reza Younesi, Uppsala.</i> <i>Group 2: Tomohiro Shiraki, Kyushu; Marianne Liebi, Chalmers; Yasuhide Inokuma, Hokkaido.</i>
17.20	End of session
18.30	Mingle for all MIRAI participants (Venue: Tegnér's Matsalar)
19.00	Dinner for all MIRAI participants (Venue: Tegnér's Matsalar)

Session 3	Parallel sessions #2
08.45	Parallel sessions (Group 1 & 2) for workshop topics. 4 presentations x 15 min + 45 min questions/discussions. <i>Group 1: Shunta Harada, Nagoya; Stephen Hall, Lund; Junghwan Kim, TokyoTech; Erik Lewin, Uppsala</i> <i>Group 2: Madoka Takai, Tokyo; Gábor Méhes, Linköping; Toshinori Fujie, Waseda; Anders Palmquist, Göteborg</i>
10.30	Fika
Session 4	Large scale facilities from a user perspective, Moderator: Ulf Karlsson, LiU
11.00	Neutron activities in Sweden, <i>Professor Aleksandar Matic, Chalmers</i>
11.20	Neutron activities in Japan, <i>Professor Saito, Director of J-Parc</i>
11.40	Advanced X-ray research in Sweden, <i>Professor Lars Kloo, Swedish Research Council</i>
12.10	Advanced X-ray research in Japan, <i>Doctor Ishikawa, Director of RIKEN Spring-8</i>
12.40	Lunch
Session 5	Parallel sessions #3
13.40	Parallel sessions (Group 1 & 2) for workshop topics. 4 presentations x 15 min + 50 min questions/discussions. <i>Group 1: Piotr Matyba, Umeå; Masahiro Yoshizawa-Fujita, Sophia; Soshi Imura, TokyoTech</i> <i>Group 2: Stefano Bonetti, Stockholm; Yoshiyuki Kageyama, Hokkaido; Marta Bally, Chalmers; Daisuke Baba, Waseda</i>
15.30	Fika
16.00	Parallel sessions (Group 1 & 2) for workshop topics. 3 presentations x 15 min + 30 min questions/discussions. <i>Group 1: Per Eklund, Linköping; Shinjiro Hayakawa, Hiroshima; Andrew Pell, Stockholm</i> <i>Group 2: Hanna Isaksson, Lund; Toshikazu Ono, Kyushu; Omar Omar, Göteborg</i>
Session 6	Workshop part I
17.30	Workshop. Starting with both groups together (instructions), then group discussions (4 groups according to the four sub-topics). Introduction & Instructions: Ulf Karlsson, LiU <ol style="list-style-type: none"> 1) Identify common scientific interests between you (the participants). (Network building) 2) How can these nodes of common interest be used and explored through MIRAI, outside of MIRAI, and after MIRAI? 3) How can MIRAI be exploited for education (short term mobility, PhDs)? 4) How can MIRAI be exploited for Innovation?
18.30	End of session
19.00	Dinner with the members of Scientific Session – Materials Science. <i>The restaurant is at Wermlands Nation in central Lund. The dinner is 100% informal and in a very informal environment. This dinner is for: Mat Sc nominated researchers, Mat Sc SSC members, Mat Sc coordinators from Kyushu & LiU. We will walk there together, it is ca 13 min on foot (1,1km) from the Workshop venue. Address to the restaurant: Stora Tvärgatan 13, 223 53 Lund.</i>

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Session 7	Workshop part II
09.30	Workshop. Group discussions (4 groups according to the four sub-topics) Fika available 09.30 – 11.00
11.30	Summary of workshop discussions. 1 representative from each group presents a 6-7 min Summary & Conclusions of the group discussion. <i>Moderator: Ulf Karlsson, LiU</i> Closing, <i>Professor Ulf Karlsson, LiU</i>
12.45	Lunch
13.45	<i>Bus departs from AF building to MAX IV and ESS</i>
14.00	Site visits to research infrastructures MAX IV and ESS
17.00	Day ends. <i>Bus departs back to central Lund</i>

Instructions to, and Information about the Researchers' sessions:

The workshop is part of the MIRAI collaboration between Sweden and Japan and focuses on the four scientific areas below. For more researchers to have the opportunity to hear each other and to facilitate better discussion time, we have combined the four sub-topics into two for the purpose of this WS.

All researchers are expected to give a presentation. Each presentation is allocated maximum 15 minutes. This time limit is strict. At the end of each session there is time for questions. The focus of the presentation should be recent, ongoing or planned research relevant to the Materials Science theme of MIRAI, preferably related to the sub-topics listed below. Moreover, it is recommended to, if there are any, include reflections/suggestions on already initiated or potential Sweden-Japan research collaboration in the presentation.

Group 1: Materials for energy devices + Advanced characterization of materials
Moderators: Professor Aleksandar Matic, Chalmers & Professor Hideki Kuwahara, Sophia

Group 2: Low dimensional materials and surfaces + Bioinspired materials
Moderators: Professor Yasuchika Hasegawa, Hokkaido & Assistant Professor Ove Andersson, Umeå

Group 1: (1)Materials for energy devices + (2)Advanced characterization of materials

Group 2: (3)Low dimensional materials and surfaces + (4)Bioinspired materials

Moderators: Hideki Kuwahara, Aleksandar Matic		
group 1		S=Swe; J=Jap
3 ppl: session 1 (tues pm 1)		SJS
4 ppl: session 2 (tues pm 2)		JSJS
4 ppl: session 3 (wed pm 1)		SJSJ
3 ppl: session3 (wed pm 2)		SJS

Moderators: Ove Andersson, Yasuchika Hasegawa		
group 2		S=Swe; J=Jap
3 ppl: session 1 (tues pm 1)		JSJ
4 ppl: session 2 (tues pm 2)		JSJS
4 ppl: session 3 (wed pm 1)		SJSJ
3 ppl: session3 (wed pm 2)		SJS

	Japan	Sweden	Total
group 1	6	8	14
group 2	7	7	14

Please find the participants and speaking order in the tables below.

Group 1: Materials for energy devices + Advanced characterization of materials

University	Sub-topic 1-2-3-4	Name	Group 1: Session & Speaking	Group 2: Session & Speaking	Role	Email
Linköping University	1	Feng Gao	1a		nominated researcher	feng.gao@liu.se
Hiroshima University		Sadafumi NISHIHARA	1b		nominated researcher	snishi@hiroshima-u.ac.jp
Uppsala University	1(2)	William Brant & Reza Younesi	1c		nominated researcher	william.brant@kemi.uu.se reza.younesi@kemi.uu.se
Nagoya University		Shunta HARADA	2a		nominated researcher	shunta.harada@nagoya-u.jp
Lund University	2(1)	Stephen Hall	2b		nominated researcher	stephen.hall@solid.lth.se
Tokyo Institute of Technology		Junghwan Kim	2c		nominated researcher	JH.KIM@mces.titech.ac.jp
Uppsala University	2(3)	Erik Lewin	2d		nominated researcher	erik.lewin@kemi.uu.se
Umeå University	1(3,2)	Piotr Matyba	3.1a		nominated researcher	piotr.matyba@umu.se
Sophia University		Masahiro Yoshizawa-Fuji	3.1b		nominated researcher	masahi-f@sophia.ac.jp
Uppsala University	2	Maria Hahlin	3.1c		nominated researcher	maria.hahlin@physics.uu.se
Tokyo Institute of Technology		Soshi Iimura	3.1d		nominated researcher	s_iimura@mces.titech.ac.jp
Linköping University	1 (2)	Per Eklund	3.2a		nominated researcher	perek@ifm.liu.se
Hiroshima University		Shinjiro HAYAKAWA	3.2b		nominated researcher	hayakawa@hiroshima-u.ac.jp
Stockholms universitet	2	Andrew Pell	3.2c		nominated researcher	andrew.pell@mmk.su.se

Group 2: Low dimensional materials and surfaces + Bioinspired materials

University	Sub-topic 1-2-3-4	Name	Group 1: Session & Speaking	Group 2: Session & Speaking	Role	Email
Kyushu University		Tomohiro Shiraki		1a	nominated researcher	shiraki.tomohiro.992@m.kyushu-u.ac.jp
Chalmers	2(4)	Marianne Liebi		1b	nominated researcher	marianne.liebi@maxiv.lu.se
Hokkaido University		Yasuhide Inokuma		1c	nominated researcher	inokuma@eng.hokudai.ac.jp
The University of Tokyo		Madoka TAKAI		2a	nominated researcher	takai@bis.t.u-tokyo.ac.jp
Linköping University	1(4)	Gábor Méhes		2b	nominated researcher	gabor.mehes@liu.se
Waseda University		Toshinori Fujie		2c	nominated researcher	t.fujie@aoni.waseda.jp
University of Gothenburg	4(2)	Anders Palmquist		2d	nominated researcher	anders.palmquist@biomaterials.gu.se
Stockholms universitet	3(2)	Stefano Bonetti		3.1a	nominated researcher	stefano.bonetti@fysik.su.se
Hokkaido University		Yoshiyuki Kageyama,		3.1b	nominated researcher	y.kageyama@sci.hokudai.ac.jp
Chalmers	4(2)	Marta Bally		3.1c	nominated researcher	bally@chalmers.se
Waseda University		Daisuke Baba		3.1d	nominated researcher	ajackaidai322@ruri.waseda.jp
Lund University	4(2)	Hanna Isaksson		3.2a	nominated researcher	hanna.isaksson@bme.lth.se
Kyushu University		Toshikazu Ono		3.2b	nominated researcher	tono@mail.cstm.kyushu-u.ac.jp
University of Gothenburg	4(3)	Omar Omar		3.2c	nominated researcher	omar.omar@biomaterials.gu.se