

Electron Microscopy & Multiscale Modeling (EMMM) 2013

Begin time	End time	<Session> or Event Category	Speaker	Title	Invit./Cont
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November 10

18:00	20:00	Welcome reception (Kyoto Royal Hotel & Spa)			
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November 11

10:00	11:00	Registration			
11:05	11:10	<Opening remarks>	Kazuto Arakawa		
		<Combining DFT, (S)TEM, dynamical diffraction and EELS>			
		Chair: Sergei Dudarev			
11:10	11:40	EELS/DFT	Mark Oxley	The Influence of dynamical diffraction on STEM-EELS fine structure	I
11:40	12:10		Cecile Hebert	Angular resolved low loss EELS of Ag acquired in EFTEM mode	I
12:10	12:30		Hiroyuki Yamaguchi	Atomic structure and potential barrier at grain boundary of CuInSe2	C
12:30	14:00	Lunch			
		Chair: Cecile Hebert			
14:00	14:20		Masanori Kohyama	Atomic Level Characterization of Lithium Titanate for Anode of Li-ion Battery - First-principles calculations, TEM and SPM -	C
14:20	14:40		Weine Olovsson	X-ray absorption spectra from first-principles calculations	C
14:40	15:00		Hidekazu Ikeno	Ab-Initio multiplet method for transition Metal L2,3-edge ELNES	C
15:00	15:20		Teruyasu Mizoguchi	ELNES/XANES calculation of liquid	C
15:20	15:40	Break			
		Chair: Maria Varela			
15:40	16:10	Charge imaging by CBED/DFT	Kenji Tsuda	Determining structure and charge density with CBED	I
16:10	16:40	Field imaging by other techniques	Naoya Shibata	Oxide interface characterization by atomic-resolution field imaging STEM	I
16:40	17:10	Structure analysis by precession diffraction/DFT	Athanasios Galanis	Structure analysis by TEM precession electron diffraction: model building with different ED data collection	I

November 12

		<Defects and interfaces>			
		Chair: Robin Schaeublin			
9:30	10:00	Deformation processes	Daniel Caillard	An in situ study of dislocation kinetics in Fe and Fe alloys at low temperatures	I
10:00	10:20		Thomas Swinburne	Classical stochastic motion of discrete kink bearing dislocations	C
10:20	10:40		Soeren Schmidt	3D grain orientation mapping of nanocrystalline materials in the transmission electron microscope	C
10:40	11:00		Masaki Tanaka	Crack-tip dislocations characterized with HVEM-tomography	C
11:00	11:20	Break			
		Chair: Mark Oxley			
11:20	11:50	Interface structure and dynamics	Maria Varela	Probing magnetism at high spatial resolution by aberration corrected electron microscopy and spectroscopy	I
11:50	12:10		Atsushi Kubo	Development of interatomic potential for Nd2Fe14B and atomistic model simulation of interface structure	C
12:10	13:40	Lunch			
		Chair: Cosmin Marinica			
13:40	14:10	Radiation effects	Xiaou Yi	In-situ transmission electron microscope observations of radiation damage effects in tungsten compared with iron	I
14:10	14:30		Robin Schaeublin	Impact of thin film geometry on defect accumulation in detailed TEM in situ study of Fe/He ion irradiated ultra high purity Fe(Cr) alloys	C
14:30	14:50		Brigitte DECAMPS	TEM study of ion irradiated pure iron within the JANNus facility	C
14:50	15:10	Break			
		<Sponsor talks>			
		Chair: Teruyasu Mizoguchi			
15:10	15:30		Alex Bright (FEI)	4D electron microscopy: Ultrafast TEM with the Tecnai FEMTO UEM	
15:30	15:50		(Hitachi High-Tech)	In-situ experiments by 300-keV CFE TEM	
15:50	16:10		Alan Maigne (Gatan)	Application of STEM cathodoluminescence in nanoscale analysis	
16:10	16:30		Abhijit Chatterjee (Accerlys)	Material geonomics a preview of future for material innovation	
18:00	20:00	Banquette (Kyoto Royal Hotel & Spa)			

November 13

		<Defects and interfaces>			
		Chair: Daniel Caillard			
9:30	10:00	Defect structure & dynamics	Haruyuki Inui	Crystal structure and deformation of long period stacking ordered intermetallic phases in the Mg-Al-Gd systems	I
10:00	10:20		Kazuto Arakawa	Extraction of dynamic properties of single self-interstitial atoms in metals	C
10:20	10:40		Yoshinori Shihara	Interaction between stacking fault and impurity in Mg crystal: Ab initio local energy analysis	C
10:40	11:00	Break			
		Chair: Yifeng Liao			
11:00	11:20		Yuki Tokumoto	In situ observation of dislocation dynamics in AlN films	C
11:20	11:40		Brian Richard Pauw	Defect distributions in irradiated nuclear steels as investigated with complementary TEM and small-angle neutron scattering	C
11:40	12:00		Emad Oveisi	3D observation of dislocations in STEM applied to single crystal Mo micro-pillars	C
12:00	13:30	Lunch			
		<Real-time observations and simulations>			
		Chair: Kazuto Arakawa			
13:30	14:00	Ultrafast electron microscopy techniques	Bryan Reed	Movie mode dynamic transmission electron microscopy	I
14:00	14:20		Jinfeng Yang	Femtosecond time-resolved electron microscopy using a radio-frequency relativistic-energy electron gun	C
14:20	14:50	In-situ, environmental microscopy techniques	Yifeng Liao	In-situ nanotribology in full view	I
14:50	15:20		Yoshifumi Oshima	Electrical and mechanical properties of ballistic gold nanocontacts measured by in-situ TEM observation	I
15:20	15:40	Break			
		Chair: Masaki Tanaka			
15:40	16:10	Real-time simulations of in-situ TEM	Cosmin Marinica	Energy landscape of point defects in body-centered-cubic metals	I
16:10	16:40		Sergei Dudarev	The fundamental role of electron microscopy in the development of new nuclear materials	I
16:40	17:00		Thomas Jourdan	Observation and simulation of interstitial dislocation loop coarsening in alpha-iron	C
17:00	17:20		Francesco Ferroni	Dislocation dynamics modelling of radiation damage in thin films	C
17:20	17:25	<Closing remarks>	Kazuto Arakawa		