

Aalto Symposium on New Functional Materials

6th–7th June 2019, Aalto University, Finland

Symposium website: <http://www.iki.fi/ankarttu/newfunmat>

Location: Aalto Campus, Haukilahti Gymnasium, [Tekniikantie 3](#), 02150 Espoo.

Scientific program (version 2019-05-31)



Thursday 6th June

08:30 Registration desk opens

Morning session. Chair: Antti Karttunen

09:00 Opening: **Janne Laine**, Vice President of Innovations at Aalto University

09:10 **Ichiro Terasaki** (Nagoya University): Structure-function relationship in the A-site ordered perovskite $\text{CaCu}_3\text{Ru}_4\text{O}_{12}$

09:50 **Tommi Tynell** (Aalto University): Reducing thin film thermal conductivity via the fabrication of hybrid inorganic-organic structures

10:20 Coffee break

10:50 **Patrick Hopkins** (Univ. of Virginia): Heat transport mechanisms and phonon thermal boundary conductance in hybrid inorganic-organic layered thin films

11:30 **Janne-Petteri Niemelä** (EMPA): On the structure of the ALD/MLD ZnO:HQ hybrids and application of ALD ZnO:Al for Si heterojunction solar cells

12:00 Lunch break

Afternoon session. Chair: Eeva-Leena Rautama

13:20 **Ayako Yamamoto** (Shibaura Institute of Technology): High-pressure synthesis of Hg-containing complex oxides

14:00 **Helmer Fjellvåg** (University of Oslo): Structure and properties of Co- and Ni-based RP3 oxides

14:40 **Sami Vasala** (Technische Universität Darmstadt): Tuning magnetic properties of perovskite-related oxides

15:10 Coffee break with **posters**

16:00 **Teruki Motohashi** (Kanagawa University): Complex transition metal oxides towards oxygen-related future applications

16:40 **Johan Lindén** (Åbo Akademi): From superconductors to colossal magnetoresistance

17:20 Closing of the first day

19:00 *Invited speakers' dinner (Restaurant Saaristo, Klippan, 00140 Helsinki)*

Friday 7th June

Morning session. Chair: Miia Mäntymäki

09:00 **Markku Leskelä** (University of Helsinki): ALD of transition metal dichalcogenides

09:40 **Anjana Devi** (Ruhr-University Bochum): New precursor systems for ALD of metal oxides for gas barrier and sensing applications

10:20 Coffee break

10:50 **Ola Nilsen** (University of Oslo): ALD from ideal 2 real

11:30 **Mikko Nisula** (Ghent University): Atomic/Molecular Layer Deposition for Energy Storage and Electronics

12:00 **Esko Ahvenniemi** (Picosun Oy): Picosun ALD solutions

12:15 Lunch break

Afternoon session. Chair: Pekka Peljo

13:30 **Yunhui Huang** (Huazhong U. of Science and Tech.): Design, synthesis and electrochemical performance of electrode materials for rechargeable batteries

14:10 **Valerie Pralong** (CRISMAT Caen): Design of new electrode materials for Na-ion batteries: The case of Rock Salt type structure

14:50 **Samuli Räsänen** (Freeport Cobalt Oy): A view on battery chemicals

15:30 Coffee break

16:00 **Mika Lastusaari** (University of Turku): Luminescent and photochromic materials for sensing

16:40 **Otto Mustonen** (University of Sheffield): Quantum magnetism in Cu^{2+} double perovskites

17:10 Closing of the Symposium

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