

Programme of the 22nd International Conference-School
“Advanced Materials and Technologies 2020”

Date: 24-28 August 2020

Venue: Hotel “Gabija” (<http://www.gabija.lt/en/>)
Vytauto st. 40,
Palanga, 00160
Lithuania

August 24, Monday

14:00 – 20:00 **Arrival and registration**

August 25, Tuesday

Chairman Sigitas Tamulevičius

8:30 – 9:00 **Registration**

9:00 – 9:15 **Opening**

9:15 – 10:00 **Linās Vilčiauskas** (Center for Physical Sciences and Technology, Lithuania)
Introduction to the World of Batteries: Aqueous vs. Non-aqueous Electrolytes

10:00 – 10:45 **Justina Gaidukevič** (Vilnius University, Lithuania)
Graphene-based Materials and Their Applications for Energy Storage and Catalysis

10:45 – 11:00 **Coffee Break**

11:00 – 11:45 **Hyeong-Jin Kim** (Gwangju Institute of Science and Technology, Korea)
Effects of Inserting Cobalt/Copper Metal on Electrochemical Properties in Si Anode for Lithium-ion Batteries

11:45 – 12:30 **Miho Yamauchi** (Kyushu University, Japan)
Inorganic Nanomaterials to Achieve Efficient Electrochemical Hydrogenation for Energy Storage and Materials Conversions

12:30 – 14:00 **Break**

14:00 – 16:00 **Social Event: 3x3 Basketball Tournament** (Palanga Sports Center, Sporto str. 3, Palanga,
<http://www.sportpalanga.lt/index.php?id=2042&lang=en>)

16:00 – 18:00 **Break**

18:00 – 21:00 **Discussions and Welcome Party**

August 26, Wednesday

Chairman Donats Erts

8:30 – 9:00 **Registration**

9:00 – 9:45 **Jana Andžāne** (University of Latvia, Latvia)
Unusual Properties of Conventional Materials: Topological Insulators for Thermoelectrics and Metrology

9:45 – 10:30 **Gunnar Suchaneck** (Dresden University of Technology, Germany)
Synthesis of Complex Oxide Thin Films by Means of Reactive Multitarget Sputtering

10:30 – 10:45 **Coffee Break**

10:45 – 11:30 **Liudas Mažeika** (Kaunas University of Technology, Lithuania)
Ultrasonic Measurements: Possibilities and Applications

11:30 – 12:15 **Iryna Yaremchuk** (Lviv Polytechnic National University, Ukraine)
Waveguide, Plasmon Polariton and Plasmon Resonance Effects by Micro- and Nanostructures

12:15 – 12:30 **Coffee Break**

12:30 – 13:30 **Ashok Vaseashta** (International Clean Water Institute, USA)
Nanomaterials for Mitigating Nano/Microplastics in Environment

13:30 – 16:00 **Break / Meeting of Lithuania-Latvia-Taiwan project “2D nanostructures of noble metal nanoparticles for biosensors application”**

16:00 – 22:00 **Social Event: Orienteering Competition** (“HBH Palanga”, Žibininkų vlg., <http://www.hbh.lt/>)

August 27, Thursday

Chairman Aivaras Kareiva

SPINMULTIFILM Day

- 8:30 – 9:00** **Registration**
- 9:00 – 9:45** **Nikolai Sobolev** (University of Aveiro, Portugal)
Magnetic Memory – *Quo Vadis?*
- 9:45 – 10:30** **Gunnar Suchaneck** (Dresden University of Technology, Germany)
Electrical Resistance and Magnetoresistance in Strontium Ferromolybdate Ceramics with Strontium Molybdate Dielectric Intergrain Barriers
- 10:30 – 10:45** **Coffee Break**
- 10:45 – 12:15** **Andres Öpik** (Tallinn University of Technology, Estonia)
Molecular Imprinting – Opportunities and Challenges
- 12:15 – 14:30** **Break / Meeting of Horizon 2020 project “Physical principles of the creation of novel spintronic materials on the base of multilayered metal-oxide FILMs for magnetic sensors and MRAM” (SPINMULTIFILM)**
- 14:30 – 17:30** **Poster Sessions** *Chairman Tomas Tamulevičius*
14:30 – 15:30 Poster Session A
15:30 – 16:30 Poster Session B
16:30 – 17:30 Poster Session C
- 17:30 – 18:00** **Best Poster Awards and Conference photo**

August 28, Friday

Chairman Gunnar Suchaneck

- 9:00 – 9:45** **Juras Ulbikas** (Applied Research Institute for Prospective Technologies, Lithuania)
What Does it Mean to Go for Shockley-Queisser Limit on Industrial Level Technology: Case of Si technology
- 9:45 – 10:30** **Hubert Halbritter** (OSRAM Opto Semiconductors, Germany)
Driven by Light – the World of Tomorrow
- 10:30 – 10:45** **Coffee Break**
- 10:45 – 11:30** **Presentations of the Best Poster Awards Winners**
- 11:30 – 12:00** **Certificates and Closing Remarks**