



Workshop “Novel Materials and Processes for Energy”

University of Duisburg-Essen, September 16-18, 2024

In Collaboration with Ben-Gurion University of the Negev (BGU), Israel

Monday, September 16, 2024		
09:00	NETZ 2.42	Registration and Coffee
10:00		Welcome and Introduction BGU and UDE
Session 1: Novel Materials for Energy Applications		
10:30		Raz Jelinek <i>Photo rechargeable organic supercapacitors</i>
10:50		Gabi Schierning, UDE <i>Quantum transport properties of thermoelectric materials</i>
11:10		Maya Bar-Sadan, BGU <i>Transition metal phosphides and layered materials as functional materials</i>
11:30		Coffee Break
11:50		Corina Andronescu, UDE <i>TBA</i>
12:10		Daniel Grave, BGU <i>Metal-oxide photoelectrodes for solar water splitting</i>
12:30		Lunch
13:00	NETZ	Poster Session
13:45	NETZ	Lab Tour NanoEnergieTechnikZentrum (NETZ)

Session 2: Short Talks by Early Career Researchers and Students		
14:30	NETZ 2.42	TBA
15:30		Transfer
16:00	Duisburg	Sightseeing for Invited Speakers
18:30	Duisburg	Dinner for Invited Speakers
Tuesday, September 17, 2024		
Session 3: In Situ and Operando Analysis		
09:00	NETZ 2.42	Joshua Baraban, BGU <i>Ultraviolet Intracavity Absorption Spectroscopy</i>
09:20		Christof Schulz, UDE <i>Understanding Gas-phase Synthesis of Functional Nanomaterials: Kinetics, Laser Diagnostics, Processes</i>
09:40		Igor Rahinov, OUI <i>From Precursor to Target Material: Temperature History, Fate and Evolution of Iron(oxide) Nanoparticles in Flame Synthesis</i>
10:00		Burak Atakan, UDE <i>Gas-phase Reactions of Metal Diketonates: Insights from Microreactor Studies Using Synchrotron Radiation</i>
10:20		Open Discussion
10:30		Coffee Break
Session 4: Synthesis and Processing of Functional Materials and Scalability		
11:00	NETZ 2.42	Michael Volokh, BGU <i>Polymeric carbon nitride films for photoelectrochemical and flow photochemical synthesis</i>
11:20		Hartmut Wiggers, UDE <i>Battery and catalyst nanomaterials from the gas phase</i>
11:40		Eran Edri, BGU <i>Functionalized membranes for water-energy applications</i>

12:00		Doris Segets, UDE <i>Hierarchically structured materials and electrodes</i>
12:20		Open Discussion
12:30		Lunch
13:00	NETZ	Poster Session
14:00	ZBT	Lab Tour The Fuel Cell and Hydrogen Center (ZBT)
Session 4: Systems Integration of Novel Materials for Energy Applications		
15:00	NETZ 2.42	Oren Regev, BGU <i>Hydrogen Transportation: Problems and Solutions</i>
15:20		Harry Hoster, UDE and ZBT <i>Electrolysis and fuel cells: from materials to systems</i>
15:40		Coffee Break
16:10		Open Discussion, Summary, Next Steps
17:00		Closing Remarks
18:00		Joint Dinner (at own expenses)
Wednesday, September 18, 2024		
Individual Discussions and Lab Tours		

Subject to change