

Joint Sino-German Workshop on Thermoelectrics



UNIVERSITÄT
BAYREUTH



Universität Stuttgart



PROGRAM

Thursday, June 28, 2018

08:50 – 09:00	Gerhard Fecher <i>Opening remark</i>
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Morning session

Chair: Kornelius Nielsch

09:00 – 09:30	Thomas Gruhn, University of Bayreuth <i>Simulations of demixing and ordering in half-Heusler materials</i>
09:30 – 10:00	Johannes Gooth, MPI CPfS <i>Thermoelectric transport to probe fundamental concepts of topology</i>
10:00 – 10:40	Jiong Yang, Shanghai University <i>MIP Infrastructure and High-throughput Study on Diamond-like Thermoelectric Chalcogenides</i>
10:40 – 11:00	<i>Coffee Break</i>

Chair: Peter Rogl

11:00 – 11:40	Juri Grin, MPI CPfS <i>Iso- and heteroelectronic substitutions in lead telluride</i>
11:40 – 12:10	Wenjie Xie, University of Stuttgart <i>Metal interstitial in half-Heusler & thermal stability of half-Heusler</i>
12:10 – 12:40	Satya N. Guin, MPI CPfS <i>Thermoelectric properties of Te-free metal chalcogenides and topological Heusler</i>
12:40 – 14:00	<i>Lunch</i>

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Afternoon session

Chair: G. Jeffrey Snyder

14:00 – 14:40	Kornelius Nielsch, IFW Dresden <i>Why are quantum materials essential for thermoelectric energy conversion?</i>
14:40 – 15:10	Wolfgang Zeier, Justus Liebig University Giessen <i>On the influence of defects in thermoelectric materials</i>
15:10 – 15:50	Georg K. H. Madsen, TU Wien <i>Point defects. Carrier control and defect scattering</i>
15:50 – 16:10	Coffee Break

Chair: Tiejun Zhu

16:10 – 16:50	G. Jeffrey Snyder, Northwestern University <i>Valence Balanced as a Generalized 18-electron Rule for the Prediction and optimization of a New Half-Heusler Thermoelectric Materials</i>
16:50 – 17:30	Peter Rogl, University of Vienna <i>Is spinodal decomposition a proper tool towards high-ZT half-Heusler alloys?</i>
19:00	Welcome Dinner

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Friday, June 29, 2018

Morning session

Chair: Peter Kratzer

09:00 – 09:30	Benjamin Balke, University of Stuttgart and Gerhard Fecher, MPI CPfS <i>Heusler compounds as thermoelectrics</i>
09:30 – 10:00	Chenguang Fu, MPI CPfS <i>Thermoelectric transport of half-Heusler and topological materials</i>
10:00 – 10:40	Anke Weidenkaff, University of Stuttgart <i>High temperature thermoelectric application</i>
10:40 – 11:00	<i>Coffee Break</i>

Chair: Anke Weidenkaff

11:00 – 11:40	Tiejun Zhu, Zhejiang University <i>Co-based Half-Heusler Thermoelectrics: 18-Electron Rule and Point Defects</i>
11:40 – 12:10	Gerda Rogl, University of Vienna <i>Mechanical properties and thermal expansion of high ZT skutterudites, half Heusler alloys and clathrates</i>
12:10 – 12:50	Peter Kratzer, University of Duisburg-Essen <i>Progress in the theoretical description of half-Heusler alloys: Electronic quasiparticle band structure and interface thermal resistance</i>
12:50 – 13:00	Claudia Felser <i>Concluding remark</i>
13:00 – 14:00	<i>Lunch</i>