

Preface

The 21st International Conference on Solid Compounds of Transition Elements, SCTE 2018, was held at the Institute building “Freihaus” of the Technische Universität Wien, Austria, from March 25 to March 29, 2018. It followed a series of conferences, dating back more than 50 years, with recent meetings in Annecy, France, (2010), Lisboa, Portugal (2012), Genova, Italy, (2014) and Zaragoza, Spain (2016). As previously, the SCTE 2018 was a forum, where solid state chemists and solid state physicists met each other in order to discuss most recent developments of *d*- and *f*-element compounds.

The conference dealt with fundamental and applied research regarding structure, crystal chemistry, chemical bonding, as well as with magnetic, thermodynamic, phononic and electronic properties of different classes of intermetallic compounds. Hydrides, borides, carbides, silicides and homologues, pnictides, chalcogenides, oxides and halides (especially those of low oxidation states exhibiting metal or semimetal properties) were in the focus of all sessions of the conference.

The conference consisted of 8 plenary talks (45 min), 40 invited talks (30 min), 51 contributed talks (15 min), a special symposium devoted to “Finite temperature simulation of magnetism” with 5 invited talks, and a total of 92 posters. Following previous efforts, attention was paid to an active participation and involvement of young researchers (invited and contributed talks). 208 scientists (including 6 accompanying persons) from 28 countries and 4 continents attended the conference in Vienna.

The local organizers are grateful to the International Advisory Board (IAC) for helping to set up a very ambitious program with many highlights, to students of the Technische Universität Wien for their assistance during the conference, to Peter Staub and Alexander Andreev for documenting the SCTE 2018 and to Doris Bauer-Innerebner for organizing and guiding the accompanying persons program. We also thank the Mensa of the Technische Universität Wien for providing to all attendees the welcome reception, the coffee breaks as well as the conference dinner in the amazing “Kuppelsaal” of the University.

The coming-up SCTE will be organized by Prof. D. Kaczorowski and his team in Wrocław, Poland, in the year 2020. We are looking forward to thrilling developments in the field of *d*- and *f*-electron systems, worth to be discussed in Wrocław, 2020.

Vienna, October 31, 2018

Ernst Bauer
(Chairman, SCTE 2018)

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