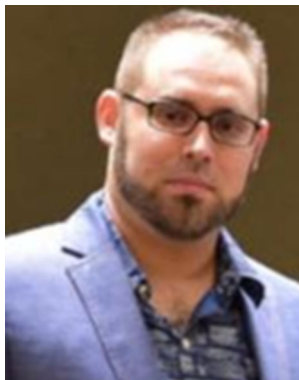


# Thermal analysis and calorimetry in the study of materials and processes for fundamental sciences and various applications in Central and Eastern Europe

*Guest Editors*



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This compilation is based on the peer-reviewed and selected papers presented at CEEC-TAC4

## Preface

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The 4th Central and East European Conference on Thermal Analysis and Calorimetry (CEEC-TAC4) was organized in the capital of Republic of Moldova, Chişinău, from 28 to 31 of August 2017. The fourth in the series of CEEC-TAC conferences, dedicated to thermal analysis and calorimetry as a tool for solving diverse issues in different fields of science and applications, was a continuation of the former two. The first conference took place in Craiova, Romania, in September 2011, the second one was held in Vilnius, Lithuania, in August 2013, and the third one in Ljubljana, Slovenia. Even though the original idea of the Central and East European Conference on Thermal Analysis and Calorimetry was to interconnect researchers working in that broad field from the Central and Eastern European countries, from the very beginning the scientists all over the world contributed to this event. We are happy to say that the numbers of participating countries during CEEC-TAC conferences are very high: Researchers from 32 different countries attended the CEEC-TAC1 conference, 35 countries participated in the CEEC-TAC2 conference, while the number increased to 41 countries in the CEEC-TAC3 conference; now, there were participants from 33 countries (from 5 continents) and it was the highest number of participants: 340. Chişinău is the largest city of Moldova and also its capital. Located in between the Carpathian

mountains, the Danube, the Black sea and the Transnistrian plain, it lies in a hilly region exactly between the Dniester and the Prut rivers; it is now the cultural, educational, economic, political and administrative center of the Republic of Moldova, independent since 1991. Chişinău has a population of about 750,000 people, distributed over a city municipality area of 565 km<sup>2</sup>. Chişinău is situated some 460 km northeast of Bucharest, 170 km southeast of Iasi, 470 km southwest of Kiev, 170 km northwest of Odessa, 1000 km southeast of Warszawa and 1350 km southwest of Moscow.

At CEEC-TAC4 conference in Chişinău, researchers from all over the world brought attractive and detailed insights into various specific aspects in the field of thermal analysis and calorimetry and gave us a glimpse into the progress of the field itself, technical and measurement development, as well as new trans-disciplinary ideas. The conference started with the 4th Edition of the Short Summer School on Thermal Analysis and Calorimetry (held at Moldova State University). During CEEC-TAC4, a wide range of topics was covered by 7 Plenary lectures, 15 Invited lectures and 1 Technical lecture; there were 4 parallel sessions of 27 oral presentations each and 3 poster sessions with 107 posters each, which were presented at “Palatul Republicii” (Republic Palace). Besides the fundamental studies concerning kinetic analysis and mechanisms of chemical reactions, which can be studied with different thermal techniques, thermal analysis is also an indispensable tool in the field of material and life sciences. We hope that novel ideas, scientific and practical knowledge were acquired during the lectures and informal discussions. We would like to once again congratulate the researchers for their valuable contribution in the field of thermal analysis and calorimetry: The award for the “Distinguished TA&C Researcher in Central and Eastern Europe” was offered to Professor Jerzy Blazejowski (Poland) on behalf of the CEEC-TAC Association and the Platinum Sponsor, TA Instruments. The award for the “Outstanding Young TA&C Researcher in Central and

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Eastern Europe,” sponsored also by the Platinum Sponsor, TA Instruments, was given to Dr Matko Erceg (Germany). Three Grants for Young Researchers, sponsored by CEEC-TAC, were given to Dr Giuseppe Cavallaro (Italy), Miss Daniela Brandova (Czech Republic) and Miss Gabriela Pieczara (Poland). Professor Boris L’vov (Russia) became new honorary member of the CEEC-TAC Committee. We are grateful to the people who contributed and supported the organization of this event, especially to the members of the Honorary Committee, Scientific Committee, International Organizing Committee, National Associations for Thermal Analysis and Calorimetry from the Central and Eastern European Countries, Executive Organizing Committee, Institute of Chemistry of the Academy of Sciences of Moldova, Moldova State University, Tiraspol State University and INFLPR-National Institute for Laser, Plasma and Radiation Physics. We acknowledge the great support of our sponsors: TA INSTRUMENTS (Platinum Sponsor and Excursion, Conference Dinner & Welcome Cocktail Sponsor); NETZSCH, SETARAM, DSC

CONSUMABLES and WINE OF MOLDOVA (Gold Sponsors). A special acknowledgment has to be addressed to the Journal of Thermal Analysis and Calorimetry for publishing one more volume dedicated to this subject and to the reviewers that put all effort in enhancing the scientific quality of the volume. Finally, we would like to thank all the people that helped, assisted and supported us during the preparation of the CEEC-TAC4 conference, last but not least to the employees of Palatul Republicii for their efficiency. We hope that the CEEC-TAC4 conference was fruitful and that you enjoyed your stay in Chişinău. We would like to cordially invite you to participate at our forthcoming joint CEEC-TAC5 and Medicta2019 conference in Roma, Italy, in August 2019. As the title of the Special Issue states, we are pleased to introduce “Thermal analysis and calorimetry in the study of materials and processes for fundamental sciences and various applications in Central and Eastern Europe” to the readers of the Journal of Thermal Analysis and Calorimetry.

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