

CEEC-TAC7

**BOOK
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ABSTRACTS**

Editors:

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**7th Central and Eastern European Conference on
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General Information

The “7th Central and Eastern European Conference on Thermal Analysis and Calorimetry (CEEC-TAC7)” has gathered **202 registered participants** from **28 countries**, presenting a total number of **247 scientific works**. Of those, 1 is Honorary Lecture (**HL**), 3 are Award Plenary Lectures (**APL**), 3 are Plenary Lectures (**PL**), 6 are Invited Lectures (**IL**), 4 Parallel Sessions of Oral Presentations – 84 contributions (**OP**) & 3 Sessions of Poster Presentation – 150 contributions (**PS**). Each session of oral presentations is comprised of 21 works, while each poster presentations includes 50 works.

List of Honorary, Award Plenary, Plenary and Invited Lecturers

Honorary Lecture

- *Jaroslav Sestak* (Czech Technical University in Prague, Czech Republic)

Award Plenary Lectures

- *Kinga Pielichowska* (AGH University of Science and Technology, Poland)
- *Branislav Stankovic* (University of Belgrade)
- *Sergey Verevkin* (University of Rostock, Germany)

Plenary Lectures

- *Ignazio Blanco* (University of Catania, Italy)
- *Atsumi Miyake* (Yokohama National University, Japan)
- *Crisan Popescu* (KAO European Research Laboratories, KAO Germany GmbH, Germany)

Invited Lectures

- *Nieves Barros* (University of Santiago de Compostela, Spain)
- *Laurent Delbreilh* (University of Rouen Normandy, France)
- *Nobuyoshi Koga* (Hiroshima University, Japan)
- *Nicolas Sbirrazzuoli* (University of Cote d'Azur, France)
- *Joan-Josep Sunol* (University of Girona, Spain)
- *Athanasios Tiliakos* (ICSI-National Institute for Cryogenic and Isotopic Technologies, Romania)

Carbothermal reaction of mechanically activated ZrC powders followed by DSC-TGA

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Mixtures of ZrO₂ and C were prepared by high-energy ball milling. Powders were milled for times from 0 to 120 minutes in air atmosphere. As milling time increased, surface area of powders increased, indicating significant particle size reduction. The thermal treatment cycle included heating at 10 °C/min to 1600 °C followed by an isothermal hold for 2 hours under the vacuum (~20 Pa) in a resistance-heated graphite element furnace. This first step of the process promoted carbothermal reaction of the starting materials.

DSC-TGA was used to follow the carbothermal reaction. The onset temperature does not seem to change for non-activated and activated powders. The change in peak area may be related to the amount of the powder that reacts at this temperature. The carbothermal reaction was split into two parts for powders activated 60 and 120 minutes. Only part of the powder reacts at the initial reaction, and then higher temperatures are required for full reaction.