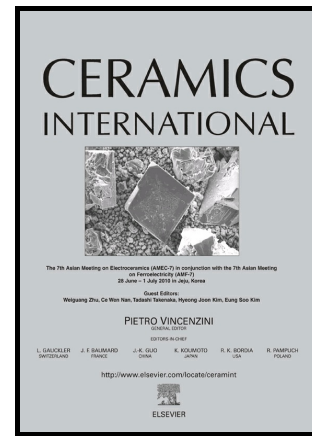


# Author's Accepted Manuscript

Preface: Thermophysical Aspects of Functional Materials and Surfaces (TAFCS)

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## **Preface: Thermophysical Aspects of Functional Materials and Surfaces (TAFCS)**

We are glad to introduce the special issue TAFCS1, which is a collection of peer-reviewed and selected papers presented at the 1<sup>st</sup> Workshop on Thermophysical Aspects of Functional Materials and Surfaces (TAFCS1), during CEEC-TAC4 meeting in Chişinău, Republic of Moldova (28-31 August 2017). The CEEC-TAC4 meeting (4<sup>th</sup> Central and Eastern European Conference on Thermal Analysis and Calorimetry) has gathered 340 scientists from 33 countries (from 5 continents), presenting a wide range of topics that were 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. The “Materials Science” section had a total of 140 works, all of them related to thermal aspects within various classes of materials, of which some regarding ceramics materials are presented in their extended version inside the special volume TAFCS1.

The TAFCS1 workshop itself was a much appreciated discussion, where several cutting-edge problems related to the topic were discussed; the introductory lecture given by Daniel Roedolf from TA Instruments has open the appetite of the listeners especially regarding the wise employment of thermal equipment, followed by the round-table where specific problems were debated (participants that expressed opinions: Vladimir Fomin, Luis A. Perez-Maqueda, Finlay D. Morrison, Xavier Moya, Andrei Rotaru, Raimundas Siauciunas, Dirk Walter, Anthony R. West, etc.). The idea of developing a scientific article on concerns, recommendations and regulations for performing thermal processing and thermal analysis measurements was introduced and received support from the participants.

The present special TAFCS volume is composed of articles dealing with: *i*) electroceramic materials, *ii*) superconductors, *iii*) magnetic ceramics, *iv*) porous ceramics, *v*) clay composites, *vi*) functionalized ceramic nanoparticles, *vii*) oxidic compounds, cements, glasses and steels, *viii*) bioceramics. The other ideas that emerged from TAFCS1 workshop will be continued for the next meeting TAFCS2, during the CEEC-TAC5&Medicta2019 joint conference in Roma, Italy (27-30 August 2019).

We remain obliged to the sponsor of the TAFCS1 workshop: TA Instruments, to the main organizer of the TAFCS1 workshop: the Central and Eastern European Committee for Thermal Analysis and Calorimetry (CEEC-TAC), and least but not last to the journal that agreed to publish this special issue: Ceramics International.

As the title of the Special Issue states, we are pleased to introduce “Thermophysical Aspects of Functional Materials and Surfaces (TAFCS)” to the readers of Ceramics International.

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