

ICTAC/TRS Committee

Report on the main activities of the group

August 2006-March 2008

1. TRS Committee composition

The current composition of the Thermal Reactivity of Solids (TRS) Committee, since September 2006, is reported in the following:

Chair:

Professor Barbara Małacka
(The AGH University of Science and Technology, Faculty of Materials Science and ceramics, Poland)

Secretary:

Dr. Paola Palmero
(Politecnico di Torino, Dept. Materials Science and Chemical Engineering, Italy)

Other TRS Committee components:

Dr. Mickaël Feist (*Humboldt University in Berlin, Faculty of Mathematics and Natural Science I, Germany*)

Professor Alain Galerie (*ENSEEG Institut National Polytechnique de Grenoble, France*)

Professor Patrick K. Gallagher (*409 South Way Court Salem, South Carolina 29676, USA*)

Professor Gualtiero Gusmano (*Dipartimento di Scienze e Tecnologia chimiche, Università di Roma Tor Vergata, Roma*)

Professor Pierre Lefort (*LMCTS Université de Limoges, France*)

Dr. Philip Llewellyn (*MADIREL-CNRS - Université de Provence – France*)

Professor Laura Montanaro (*Dept. Materials Science and Chemical Engineering, Politecnico di Torino, Italy*)

Professor Yashishiko Sadaoka (*Department of Materials Science and Engineering, Faculty of Engineering, Ehime University, Japan*)

Professor Gerard Thomas (*Centre SPIN Ecole Nationale Supérieure des Mines, St.Etienne, France*)

All the members of the TRS Committee, with full affiliation and E-mail address, are listed in the TRS website (<http://www.emse.fr/fr/transfert/spin/trs/committee.html>)

2. Organization of a TRS section in the frame of ESTAC 9 conference in Kraków, Poland

During ESTAC 9 (27-31.08.2006 Kraków, Poland) the TRS section was the biggest at the conference. In the scope of TRS section three oral sessions were organized with 1 keynote lecture of Prof. M. Soustelle and 20 oral presentations. Additionally 78 posters were presented. The round table discussion of TRS group took place.

All credit for the successful TRS section appearance at ESTAC 9 goes to Prof. Laura Montanaro and Prof. Gérard Thomas, former Chair and Secretary of the group.

3. TRS website updating

Updating of the website of the Thermal Reactivity of Solids Group on the EMSE server has been performed.

Dr. Loic Favergeon, from the Ecole Nationale Supérieure des Mines, Saint-Etienne, was charged to update the TRS website, in terms of the new members of the committee, past and future events.

In addition, a link from the ICTAC website (www.ictac.org) to the TRS page has been installed.

4. Organization of a TRS section in the frame of ICTAC14 conference in Brazil

As a main activity, the TRS committee members were focused on the organization of a TRS section in the frame of the next ICTAC14 conference in Brazil in September 2008.

- Firstly, the main topics of the session have been discussed by the committee. They are reported in the following, together with some main comments from the TRS Group.

1. Mechanisms of reactions in the solid state
2. Applications to different inorganic materials
3. Solid state based technology development

The TRS session of ICTAC14 meeting will be devoted to the fundamental research in reactions mechanisms, even in heterogeneous (gas-solid, solid-solid and solid-liquid) systems. The understanding of the above mechanisms ought to bring a better knowledge of the behaviour of solids in reaction, thus bringing the opportunity to develop chemical and materials science and to enhance technology development.

The investigated materials should be mainly inorganic, and particularly not polymers. Simple organic compounds could be also taken into consideration.

All the thermal treatments applied to elaborate, crystallize or transform these materials can be considered. All thermal or calorimetric methods used to follow the reaction or to characterize the solids will be considered.

The above topics are closed to those proposed in the last ESTAC9 conference (Krakow, September 2006), since they are quite wide and cover all the topics in the range of interest of the reactivity of solids.

- Secondly, a call for paper for a TRS session in the ICTAC14 conference has been prepared. In the call, the main topics of the session, the important dates and the abstract submission procedure are briefly described. The call for paper was then published on the TRS website and sent to a wide scientific community, first of all by exploiting the ESTAC9 mailing list. In addition, it has been extended to all members of Polish Society of Calorimetry and Thermal Analysis (PTKAT) and of Polish Ceramic Society, of which Professor Barbara Malecka is respectively Vice-president and member. Moreover, it was also sent to the Italian Scientific Community of AIMAT (Associazione Italiana di Ingegneria dei Materiali) and Consortium INSTM (Consorzio Interuniversitario per la Scienza e Tecnologia dei Materiali) of which Professor Laura Montanaro is respectively Vice-president and member of the Scientific council. Finally, it was extended to all the CIEC11 (European Interregional Conference on Ceramics) participants, since a TRS session was already organized by Professor Montanaro in the frame of the same conference some years ago (CIEC9, Bardonecchia, September 2004).
- Thirdly, the Brazilian secretary of ICTAC14 Conference was contacted with the aim of planning the number of TRS oral session and keynote lectures. In particular, it was asked to ICTAC Organizing Committee to invite keynote lecturer (one or two) of TRS session, with free admission to the conference. It was also asked them to send to the TRS committee all the abstracts related to the TRS sessions, to be evaluated and assigned as oral or poster presentations. It should be pointed out that, in spite of various letters sent by Professor Malecka to the chair and secretary of ICTAC14, they do not replay.

5. TRS meeting – 7th February 2008- ECOLE DES MINES DE SAINT-ETIENNE)

The first meeting of the new TRS committee was held in the Ecole des Mines of Saint-Etienne, February the 7th, 2008. Professor Barbara Malecka (chairperson), Professor Gerard Thomas, Professor Michelle Pijolat and Professor Stéphane Valette were present. Number and choice of oral/invited presentations of the TRS session were mainly discussed.

A second meeting of the TRS Committee was proposed to be held in Krakow, May 2008.