

## *Preface*

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This special issue of JTAC reports some communications selected from the almost 150 presented at the 28<sup>th</sup> National Conference on Calorimetry, Thermal Analysis and Chemical Thermodynamics, Milan, Italy, December 2006. This kind of editorial effort really provides a picture of the vast realm of applications of Thermal Analysis and Calorimetry, since the selected papers concern advanced studies by scientists and technologists active in various fields of chemistry, physics, life science, etc..

The high level of this issue is the result of the hard work of our colleagues who helped us to carefully review the manuscripts. We warmly thank all of them. A special mention has to be addressed to the Lexica Ltd Editorial Office for their dedication in the preparation of this issue.

On behalf of the Italian Association of Calorimetry and Thermal Analysis (AICAT) the Guest Editors dedicate this volume to Prof. Guido Barone for his 70<sup>th</sup> Birthday.

Prof. Dimitrios Fessas  
Prof. Antonella Gervasini



It is a true pleasure, as the President of the Italian Association of Calorimetry and Thermal Analysis (AICAT), to introduce this issue of JTAC dedicated to the celebrations of Guido Barone in the occasion of his 70<sup>th</sup> birthday. I would like to thank the publisher for accepting to dedicate to Guido Barone this tribute which the most outstanding scientists deserve. As usual in science, the articles collected here provide an up-to-date framework of the research field to which Guido has dedicated his whole life as scientist and teacher. It is a beautiful and significant habit, because it shows the sense of continuity of science and the cultural (and also human) relationship that enlivens the evolving knowledge.

Of that cultural and human relationship between people who share the same ideals – be they scientific, academic, or political – as well as of our common subject, Physical Chemistry, Guido has been a real Master, in its most ancient and noble meaning. A Master because, even before teaching Physical Chemistry to generations of students and early stage researchers, he was a model. A model in science, in everyday commitment, in innovating imagination, in academic life.

Guido Barone was born in 1937 in Avellino, near Naples, and spent almost his entire career at the Faculty of Sciences of the University of Naples 'Federico II'. Graduated in Industrial Chemistry with a thesis on Electrochemistry under the

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supervision of prof. Liquori, he began his research activity in the Neapolitan section of the National Research Council and continued it at the University as associate and then (since 1987) full professor, position that he is still holding.

Author of over 300 scientific articles, he committed himself to three main research subjects. First, continuing the work started as a student, solution chemistry, with particular regard to chemical-physical properties of synthetical and stereoregular polyelectrolytes in solution and their conformational transitions.

He then moved on to Biological Physical Chemistry, of which he has been a real precursor in Italy, dedicating on it since 1970 and immediately conveying it to students in a homonymous course, the first to be instituted in an Italian university. He gave important contributions in various fields: solvation thermodynamics, conformational stability and cooperative transitions in native globular proteins, their chemically or genetically modified derivatives, their complexes with ligands, the stability of synthetic triplexes and quadruplexes of oligonucleotide complexes of biomedical and pharmacological interest.

In more recent years he chose another highly innovative research field: Environmental Physical Chemistry, in close relation to real applicative problems of Southern Italy and Campania, his very region, in particular. He thus studied the environmental pollution due to transportation and the chemical reactivity of atmospheric pollutants, with help of models of photochemical atmospheric pollution. In this case, too, he immediately committed himself to the relevant teaching, beginning to teach Environmental Physical Chemistry in 1995 and dedicating with passion to a new graduate program in Environmental Sciences, whose council he is now chairing.

The school of Physical Chemistry that he created around him is of course present in Naples, but some of his students are reputed professors in many other Italian and foreign universities. Famous for his industriousness in every aspect of his teaching, researching and organizing work, he gets general liking and esteem in his university and faculty, of which he is an authoritative and listened member.

Active in politics, especially in defending the rights of research and researchers, he fought battles for the renovation of the Italian university and society, close to the big protest movements but always careful towards building and not destroying.

Outstanding figure, known and appreciated by all the Italian physical chemists, he never stood aside in the organizational tasks of our discipline. He has been President of AICAT and of the Division of Chemistry of Biological Systems and Processes of the Italian Chemical Society. At international level, he took part in the Thermodynamics Committee of the IUPAC Division of Physical Chemistry.

Volcanic like his native land, pleasant and creative like all Neapolitans, top rank scientist, Guido has got friends and admirers everywhere. Thanking him for all he has done and still expecting much from him, this issue wants to be a well deserved tribute by the whole AICAT scientific community to Guido Barone. Happy Birthday, Guido!

Prof. Maria Rosaria Tiné  
President of AICAT



**On behalf of the Editors and the members of the Board of the Journal of Thermal Analysis and Calorimetry, we wish Prof. Guido Barone good health and many additional fruitful years in science. We also would like to take this opportunity to thank him for his valuable work as a member an honorary member of JTAC for his high-level scientific papers and for his efforts as a reviewer. His activities have contributed significantly to the Journal's success. Many happy returns!**

**Editors**

## ACKNOWLEDGEMENTS

### *Acknowledgements*

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*The Guest Editors are very grateful to the following scientists whose critical reviews have significantly contributed to the quality of the papers in this Special Chapter*

Arena, G., Catania, Italy	Mucha, M., Lodz, Poland
Cabeza, O., A Coruna, Spain	Nayak, P. L., Cuttack, India
Cheng, C., Magdeburg, Germany	Relkin, P., Massy, France
Chrissafis, K., Thessaloniki, Greece	Rialdi, G., Genoa, Italy
Dallos, A., Veszprém, Hungary	Saboury, A. A., Tehran, Iran
Delmon, B., Louvain-la-Neuve, Belgium	Saccone, A., Genoa, Italy
Drebushchak, V. A., Novosibirsk, Russia	Schiraldi, A., Milan, Italy
Gaal, P., Pittsburg, PA, USA	Staszczuk, P., Lublin, Poland
Geng, X. D., Beijing, China	Sulcova, P., Pardubice, Czech Republic
Jóna, E., Bratislava, Slovakia	Szumera, M., Cracow, Poland
Kiricsi, I., Szeged, Hungary	Tatar, C., Elazig, Turkey
Lőrinczy, D., Pécs, Hungary	Thomas, P. S., Sidney, Australia
Melnikov, P., Campo Grande/MS, Brazil	Torra, V., Barcelona, Spain
Menczel, J., Houston, TX, USA	Vecchio, S., Rome, Italy
Mestres, C., Barcelona, Spain	Wang, X., Fuzhou, China
Michnik, A., Katowice, Poland	Zielenkiewicz, W., Warsaw, Poland

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DOI: 10.1007/s10973-007-3099-x