



## Preface

This is the special issue of *Catalysis Today* devoted to the role of group five elements in catalysis, following the Sixth International Symposium on Group Five Elements held in Poznań, Poland, 7–10 May 2008.

International Symposia on Group Five Elements have originated from meetings devoted to niobium compounds. The first such meeting was organized in 1989 in Hawaii, USA. It was followed by a series of international conferences on Nb compounds, subsequently held in Tokyo, Japan, in 1993 and 1995. The scope of those meetings was further expanded to all the elements of Group Five (V, Nb and Ta), leading to the Third International Symposium organized in 1999 in Rio de Janeiro, Brazil. Since then the International Symposium on Group Five Elements has been held every three years. The recent ones took place in Toledo, Spain (2002), followed by Hancock, MA, USA (2005), and Poznań, Poland (2008).

The last symposium, the Sixth International Symposium on Group Five Elements, was the second one organized in Europe, after Toledo. Out of its 120 participants about 70% were from Europe, representing 14 countries: Poland (22%), Spain (11%), Germany (7%), Italy (6%), UK (5%), France (4%), Belgium (3%), Czech Republic (3%), Romania (3%), Russia (2%), Denmark (1%), Portugal (1%), Ukraine (1%), and Hungary (1%). About 30% of participants came from the following countries from other continents: Japan, USA, Mexico, Malaysia, Brazil, India, Tunisia, and Algeria. Interestingly, students made more than 20% of the participants while doctors represented the largest group. The conference venue was located by Malta Lake, the charming recreation area in Poznań. The nearby conference centre housed all the participants, which contributed to the integration, interesting discussions and transfer of knowledge also out of conference rooms.

As usual during such a symposium, each day of this time session has been devoted to the compounds of one element, with the emphasis on the structure–performance relationship of these materials, and their role in catalysis. This typical formula of symposium was expanded this time by a half-day session dedicated to Prof. Jerzy Haber, the renowned scientist in the field of catalysis on vanadium-containing materials, on the occasion of his birthday. The conference program consisted of 4 plenary lectures, 4 key note lectures, 5 invited lectures in honor of Prof. Jerzy Haber, 30 oral and 43 poster presentations.

A total of 38 papers from the conference presentations are published in this special issue of *Catalysis Today*. They are grouped into three sections (V, Nb, Ta). The ordering in the vanadium, niobium and tantalum sections is arranged in the following way: in each section review or partly review papers based on the plenary and/or key note,

and/or invited lectures are placed first and next the original contributions containing the results presented as oral and posters are placed.

Traditionally, the largest number of papers concern vanadium-containing materials. However, the number of papers devoted to niobium and tantalum compounds increase systematically from one to another symposium.

The papers are distributed through each section as follows:

1. Vanadium—papers devoted exclusively to vanadium-containing compounds.
2. Niobium—papers dealing with materials containing only Nb (among G-5 elements) as well as with those which contain both Nb and V, or the papers which compare niobium with vanadium compounds.
3. Tantalum—papers dealing with materials containing only Ta (among G-5 elements) as well as with those which contain Ta and/or Nb and/or V, or the papers which compare tantalum niobium and vanadium compounds.

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