ELSEVIER

Catalysis Today 78 (2003) 1–3

CATALYSIS TODAY

www.elsevier.com/locate/cattod

Foreword

The first documented meeting on niobium compounds was organized in December 1989 in Hawaii, USA by Israel E. Wachs (Session Chairmen: Edmond I. Ko and Kozo Tanabe). It was the "incubator" for a series of international conferences on Nb compounds. This symposium follows the international series started in Tokyo, Japan, in 1993 and 1995 on niobium compounds, after the idea of Prof. Kozo Tanabe. Its scope was further expanded to all the elements of the Group Five for the Third International Symposium (Rio de Janeiro, Brazil, March 1999). This Fourth International Symposium (Toledo, Spain, April 2002) continues the series of symposia. The year 2002 will be 200 years since the discovery of the Group

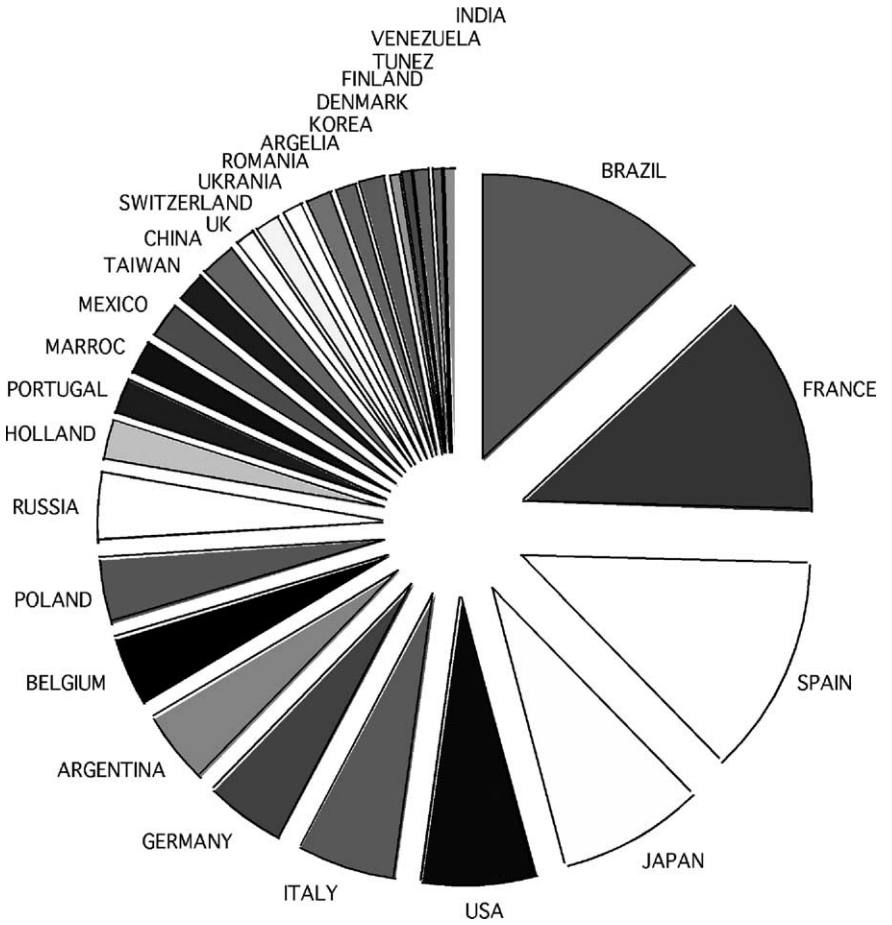

Fig. 1. Contributions to the G5 Bicentennial Meeting distributed by countries.

0920-5861/02/$ – see front matter
PII: S0920-5861(02)00316-4

Five elements at the beginning of nineteenth century: V (1801), Nb (1801) and Ta (1802). This makes the Fourth International Symposium of the Group Five Compounds as the landmark "Bicentennial Meeting".

The Group Five compounds are key elements in solid-state chemistry, materials science, catalysis, and engineering for the formation of functional materials. For example, V, Nb and Ta are key components in a large number of catalysts either as the main component or as a promoter to improve their performance and properties. The technical contributions to this symposium numbered more than 130, which underlines the growing importance of the compounds of the Group Five elements. Fig. 1 illustrates the contributions from the different countries to this symposium. It clearly shows that the symposium has a global character, with contributions from different parts of the world, which has been illustrated in Fig. 2.

V is the most abundant element and Nb and Ta decrease in abundance on the terrestrial crust by steps of an order of magnitude each. However, the contributions to the G5 Bicentennial Meeting crosses the frontier determined by terrestrial abundance (Fig. 3). The number of contributions on niobium compounds is particularly relevant, which shows that this element is increasingly used in research and industrial applications. Tantalum represents an outstanding increase in the number of contributions with regards to its terrestrial abundance. There is a great potential in the applications of Ta-containing catalysts, which is becoming very clear from the pioneering contributions presented at this symposium, and that appear in this special issue of Catalysis Today.

This special issue of Catalysis Today presents the selected contributions submitted for publication. As a whole, 85 manuscripts have been submitted for publication and 57 have been accepted for publication, which makes a 67%. The organizers are proud of the high level of the contributions of this symposium presented in this issue.

The organizers acknowledge the support of the sponsors. In particular, the support by Niobium Products (Companhia Brasileira de Metalurgia e

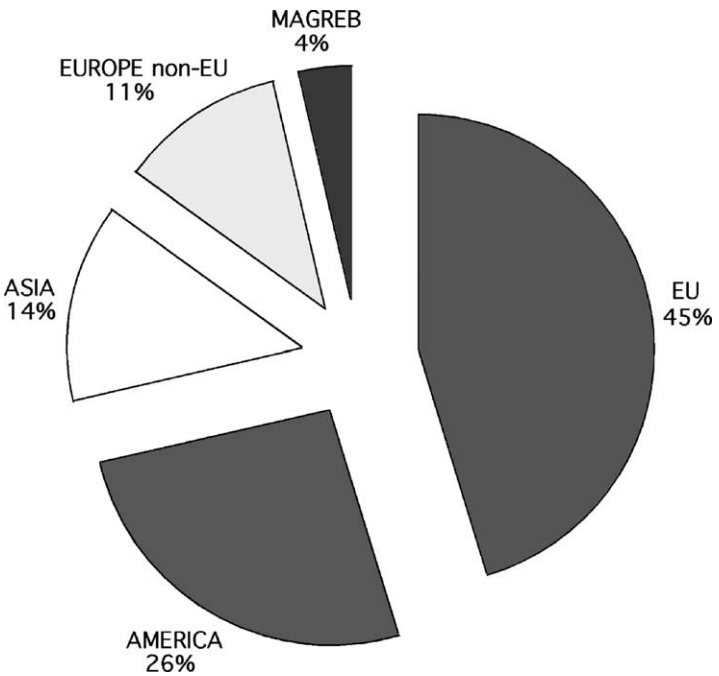

Fig. 2. Contributions to the G5 Bicentennial Meeting distributed by regions.

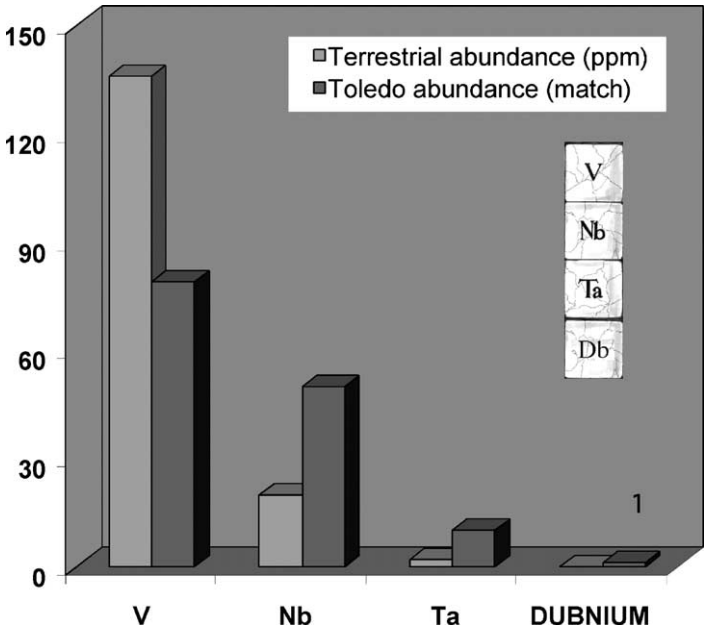

Fig. 3. Terrestrial abundance of the elements of the Group Five compared to the abundance of these elements in the contributions presented in the G5 Bicentennial Meeting ("Toledo abundance").

Mineracao-CBMM), and also those of UNED (Spanish Distance Teaching University) and UCLM (Universidad de Castilla la Mancha). The support of SECAT (Spanish Catalysis Society), CEPSA, CSIC (Spanish Research Council) and MCyT (Spanish Ministry of Science and Technology) are gratefully appreciated. The help and cooperation of Caja Castilla la Mancha, Fundación "Toledo Ciudad de Congresos" and of the City of Toledo are very much appreciated. Mr. Fernando Aranda is responsible for the logo artwork of this symposium on an idea proposed by M.A. Bañares.

Miguel A. Bañares*
Inst. de Catalisis y Petroleoquimica
Campus UAM-Cantoblanco, Madrid E-28049, Spain
*Corresponding author. Tel.: +34-91-5854788;
fax: +34-91-5854760
E-mail address: mbanares@icp.csic.es
(M.A. Bañares)

Israel E. Wachs
Zettlemoyer Center for Surface Studies
and Department of Chemical Engineering
Lehigh University, Bethlehem, PA 18015, USA