

Editorial

Grant C. Lukey · Angel Palomo · John L. Provis ·
Jannie S. J. van Deventer

Published online: 3 February 2007
© Springer Science+Business Media, LLC 2007

To write an introductory note for a Special Edition of a scientific journal is always a pleasure, as it provides an opportunity to thank the editorial management of the journal for their acknowledgement of the relevance of the chosen topic for the issue: Geopolymers in this particular case.

Those who have participated in the selection of the papers as well as in the discussion of them with authors have obtained a great deal of satisfaction from the final result. The scientific community based around the study of Geopolymers is growing at a significant rate, and consequently the quality of investigations is improving and the range of research objectives is being interestingly amplified. This Special Edition contains papers from a wide range of academic research groups and national research institutes, including many that are well established in the field in addition to some newer entrants, and this is very heartening to us. There are also a smaller yet still significant number of papers from commercial organisations, showing clearly that there is interest in this field from a practical as well as a theoretical standpoint. The breadth of papers presented in this Special Edition, covering topics ranging from theoretical aluminosilicate chemistry and the development of new analytical techniques through to purely practical

aspects of waste utilisation and ceramics processing, provides a measure of the potential of geopolymers technology to make an impact in many diverse areas.

However, it is also worth remarking on some aspects of the present Special Edition, possibly without strict statistical significance but reflecting a very real situation:

More than 80% of the papers published in this issue originate from Australia and Europe, with American and Asian countries contributing only 20% of the published papers. There is increasing emphasis on geopolymer research in China, with most papers being published in Chinese journals and conference proceedings. It is very interesting that two of the most powerful countries of the world in terms of scientific research, the USA and Japan, are not yet dedicating resources to advances in the field of geopolymers to the same extent as is observed elsewhere. This is particularly important given the potential environmental aspects of geopolymer utilisation, where these large economies may stand to benefit greatly from any investment that is made simply due to the scale of the savings that may be achieved.

It is not our task to evaluate the reasons why the evolution of knowledge on these materials has run in the direction it did, but it is our duty to enhance the current state of research in the field in order to prepare a bright future for these materials. This issue is a good example of how to face the future.

To conclude this introductory note, the guest editorial team of this issue wants to remark that the growing activity in the Geopolymers field is currently reaping the benefits of recognition by the broader scientific community of the quality of the research being

G. C. Lukey · J. L. Provis (✉) · J. S. J. van Deventer
Department of Chemical and Biomolecular Engineering,
University of Melbourne, Melbourne, VIC 3010, Australia
e-mail: jprovis@unimelb.edu.au

A. Palomo
Instituto Eduardo Torroja (CSIC), Serrano Galvache N°4,
28033 Madrid, Spain

conducted. The monographic session dedicated to Geopolymers in the recent Conference on Advances on Cement and Concrete (Davos, July 2006) is proof of this. The cement and ceramics industries are starting to believe that this material is a serious alternative to traditional technologies in a wide range of applications, either as a high-performance, environmentally friendly

cementitious binder or as a low-cost yet performance-competitive ceramic, which is a very encouraging position for researchers to be in.

We trust you will enjoy this Special Edition of the Journal of Materials Science on Geopolymer Science and Technology.