

Preface

Innovation in Materials Science-2 reinforces the adage by John Dismukes that “Scientific Technology” has progressively displaced “Empirical Technology” as the primary driver and basis for increasing economic development over the last four centuries. Technical inventions, and innovations based upon technical ideas, remain the basic drivers for wealth creation. However, the areas of current materials research have changed considerably from 2008 when the first volume was published, until now, 2012. The collection of articles in Volume 2 reflects this change. An index of the articles published in the earlier collection; Innovation in Materials Science (2008 doi:10.4028/www.scientific.net/KEM.380) is also provided for comprehending the considerably-changed landscape for materials research over the past four years.

Volume 2 is mostly directed at new materials that are classified as sustainable, bio-and-nano materials, and glass materials with considerable emphasis on processes that impact the successful commercial development of new materials. The volume also contains two important reviews directed at Ferro-fluids and Entropy-generation methods, both of which are timely to any discussion of Innovation in Materials Science. A new theoretical technique for the analysis of wave synthesis is included. Graphene and wood based materials for energy impact are also highlighted in this issue.

We are happy to dedicate this collection of invited-only articles to Professor J. P. Dismukes (University of Toledo, USA) in recognition of his pioneering efforts for understanding the principles of radical innovation. Examples of his pioneering publications are given in doi:10.1109/PICMET.2007, <http://dx.doi.org/10.1016/j.techfore.2010.10.004> which are only a small sampling of many classic publications authored by him.

We are grateful to the authors of these outstanding contributions for their effort. We are also grateful to Dr. Wohlbier of Trans Tech Publications, Switzerland for encouraging this issue.

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June 2012