SPECIAL ISSUE EDITORIAL ADVANCES IN MATERIALS SCIENCE: WHAT′S NEW IN ADVANCED MATERIALS?

M. I. N. Isa[1*], Wan M. Khairul[1] and M. A. Kadir[1*]

[1] *Advanced Nano Materials (ANoMa) Research Group, School of Fundamental Science, Universiti Malaysia Terengganu, 21030 Kuala Nerus, Terengganu, Malaysia*

School of Fundamental Science (PPSA) in conjunction with Advanced Nano Materials (ANoMa) research group, Universiti Malaysia Terengganu (UMT) has successfully organized Advances in Materials Science (AiMS2018) seminar. AiMS2018 was introduced as a platform of knowledge sharing where experts and scholars in advanced materials showcased their research activities through technical presentations. On the basis of the seminar′s theme, ′What′s new in advanced materials?′, AiMS2018 has gathered academia and researchers from numerous emerging fields in advanced materials specialization namely materials science, nanotechnology, metallic alloys, polymers, coordination polymers, molecular wires, carbon materials, optical, electronic, photonics, solar cells, superconductors and semiconductors.

As the guest editors of this special issue of ASM Science Journal, we are deeply honoured and proud to present nineteen high quality articles from AiMS2018. They were selected on the basis of quality and relevance to the scope of this journal. These articles were accepted for publication after underwent strict reviewing standard journal procedures coordinated by our associate editors, as implemented for our current special issue [1]. Various types of spectroscopic and analytical techniques, surface analysis and application studies ranging from physics and chemistry were portrayed from our reputable researchers. The sequence of the paper is organized as follows.

First and Second articles report on the structural modification of Y-Ba-CuO bulk superconductor towards their mission to produce single grain superconductors and improving flux pinning properties, respectively. Whilst, articles Three, Four and Five describe about the studies on Solid Polymer Electrolytes Based (SPEB) and bio-polymer electrolyte (SBE) as new electrolytes material for the interest of batteries. The use of 2-hydroxyethyl cellulose as new natural binder in electrodes for solid-state proton battery is proposed in article Six. Meanwhile, article Seven describes the effects of epoxy based coating containing ZnO-PEDOT:PSS hy-

*Corresponding author:maisara@umt.edu.my

brid nanocomposite towards its corrosion behaviour. The effects of HNO_3 concentrations towards the surface and thickness of silicon wafer were described in article Eight. In article Nine however, the authors illustrate the approach of synthesizing Zn_2SiO_4 composite along with their structural and optical properties.

Interestingly, article Ten describes the synthesis of new 3D metallodielectric photonic crystals SERS substrate. In addition, article Eleven focused on the development of polymer clay nanocomposites poly(methyl methacrylate) /organomontmorillonite (PMMA/OMMTs), discussed the effect on tensile properties after the clay was altered with organic ion such as triisobutyl(methyl) phosphonium (TIBMP). Falls in the rather similar interest, article Twelve describes the study of layered double hydroxide (LDH) of manganese/aluminium (MnAl) in removing anionic dye such as methyl orange from aqueous solution. While article Thirteen describes on the role of molecularly imprinted polymers (MIPs) in adsorping Ni^{2+} ion.

Investigation on the fabrication of liquid crystalline semiconductor material bearing acetylide-imine moiety as conductive film was reported in the Fourteen article. Furthermore, articles Fifteenth and Sixteen describe the advantages in using computational chemistry and experimental approaches to study anion binding and molecular docking, respectively. Both paper Seventeen and Eighteen described comprehensively on the studies of gellan gum. Combination of this renewable polymer with Manuka honey as wound healing agents was discussed rather detailed in paper Eighteen.

The final article, which is Nineteen, presents a breath taking survey on the exposure of non-ionizing radiation in the areas of two higher institutions, i.e. UMT and UniSZA. This study also covered nearby areas close to these campuses.

In conclusion, on behalf of PPSA, the guest editors wish many thanks to all contributing authors in presenting and reporting these articles which cater vast areas of biomaterials, material sciences, chemical sciences, computational chemistry and physics. We would like to express our greatest and humble gratitude to all appointed reviewers who have voluntarily evaluated all the featured articles. We do hope that this special issue shall bring numerous benefits to any readers and would enthuse, enrich, stimulate as well as catalyse the development of advanced nanomaterials in future.

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[1] Isa, M. I. N., Kadir, M. A. & Wan M Khairul 2017, Editorial: Fundamental interdisciplinary pathways to future sustainability, *Journal of Sustainability Science and Management*, pp i-iii.