Meetings International
SciTechnol

Manoj Gupta, J Chem Appl Chem Eng 2019, Volume: 3
DOI: 10.4172/2576-3954-C1-013

4th International Conference on
MATERIALS CHEMISTRY & SCIENCE
&
5th International conference on
NANOTECHNOLOGY FOR RENEWABLE MATERIALS
March 18-19, 2019 | Singapore City, Singapore

Manoj Gupta
National University of Singapore, Singapore

Harnessing nanotechnology for enhancing engineering performance of magnesium targeting co2 mitigation

The climate change has become an imposed evil that needs to be tamed in very near future through the judicious use of new non-toxic materials and sustainable green technologies. Magnesium is the lightest of all metals that can be used in structural applications particularly in transportation sector to minimize fuel consumption and hence to limit greenhouse gas emissions. Unlike commonly and currently used neurotoxic aluminum based materials, the number of commercially available magnesium based alloys is limited. This shortcoming necessitated the development of new materials through alloying and reinforcement additions. Among the different length scale of reinforcements, reinforcement at nanolength scale has shown tremendous potential in enhancing a multitude of properties of magnesium and its alloys. In view of this, the present talk will focus on highlighting the fascinating effects of nano- reinforcement in significantly increasing the engineering and biomedical capabilities of magnesium and its alloys.

Biography

Manoj Gupta was a former Head of Materials Division of the Mechanical Engineering Department and Director designate of Materials Science and Engineering Initiative at NUS, Singapore. He did his Ph.D. from University of California, Irvine, USA (1992), and postdoctoral research at University of Alberta, Canada (1992).

mpegm@nus.edu.sg