Nanostructures are of great interest due to their unique properties. The role of nanomaterials and nanocomposites for the societal needs is of wide interest. I will brief our recent research activities on using the nanostructured materials for energy [1], photo-splitting of water [2], photo catalytic materials for water remediation [3] and nanobio-sensors [4,5]. Ion irradiation due to their unique property of depositing large energy density in localized region [6] has been exploited in creating nanostructures and engineering the materials for energy.


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