

Green synthesis of BiVO₄ using plant extracts

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Nowadays, the development of efficient green chemistry methods for synthesis of metal oxides nanoparticles has become a major focus of researchers. These methods are being investigated in order to find an eco-friendly technique for production of well-characterized nanoparticles. In this contribution we report for the first time, the synthesis and structural characterization of n-type Bismuth vanadate (BiVO₄) nanoparticles using aqueous extracts of *Callistemon viminalis* as a chelating agent. To ascertain the formation of BiVO₄, XRD, SEM, HRTEM, SAED, EDS were carried out.

Biography:

Hamza Mohamed, 26 years old is pursuing MSc studies in Physics with the University South Africa. He is the recipient of the award from the African Institute for Mathematical Sciences – South Africa, (AIMS-SA). His current research is focused on investigating the use of natural plant extracts for the synthesis of nanoscaled multi functional metal oxides.