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(57) Abstract :

The present invention relates to bi-metallic nanoparticle impregnated polymeric membrane for water filtration. The invention provides synthesis of bi-metallic nanoparticles such as Zn-Ag and TiO₂-Ag with the help of plant extract assisted route using leaf extract of Azadirachta indica. This provides eco-friendly and less toxic nanoparticles. The nanoparticles are entrapped into a polymeric membrane for the purification of iste water. Nanoparticles are expected to add to the membrane properties in terms of high anti-bacterial potential along with enhanced catalytic properties, and resistant to fouling.

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