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(57) Abstract :

The present disclosure provides a method for synthesization of magnetic nanoparticles for waste water treatment. Cobalt and Nickel salts 102 are mixed with melamine ethylene glycol, and then heated up, which is further grinded to form magnetic nanoparticles 104. Further, multi-disciplinary functional groups are added on surface of the magnetic nanoparticles for creating functionalized magnetic nanoparticles 106, which is further mixed with silica gel 112 to increase its stability. The sythesized magnetic nanoparticles combine with pollutants present in the waste water, and thus the sythesized magnetic nanoparticles combined with pollutants are collected in a magnetic drum, where pollutants are separated by demagnetizing and magnetic nanoparticles are reused.

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