

Oil wastewater filtration using nanomembranes and magnetic nano particles

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The using of crude oil due to high volume and pollution is a serious environmental challenge. The following methods have been used for this purpose: API, gravel, filtration, hydro cyclone and injection gas flotation. The new methods, magnetic ferritic nanoparticles (Fe3O4) and nanosilver have a lot of advantages and disadvantages. The advantage of magnetic nanoparticles is that they are easily separated from the fluid by special magnet so that it can be reused and recycled. The nanoparticles were synthesized by the CVD method, and with the SPM, STM, and XRD nanoscale scales were confirmed.

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