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### A polypropylene cartridge filter with hematite nanoparticles for solid particles retention and arsenic removal

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### A polypropylene cartridge filter with hematite nanoparticles for solid particles retention and arsenic removal

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#### Abstract

In this article, we report a processing route for deposition of hematite ( $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>) nanoparticles into a cartridge filter composed of polypropylene (PP) non-woven fabric by a dip-coating method. During the process a plasma activated non-woven fabric was immersed in an

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