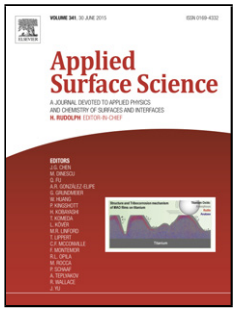


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# A polypropylene cartridge filter with hematite nanoparticles for solid particles retention and arsenic removal

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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 ($\alpha$-$Fe_2O_3$) 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