

PATENT NO. 370787
**MESOPOROUS SECONDARY NANOSTRUCTURES AS MULTIFUNCTIONAL
HEAVY METAL SCAVENGER**

APPLICATION NO. 1295/KOL/2014

APPLICANT
Tezpur University

ABSTRACT

Adsorbent material comprising mesoporous secondary nanostructures of Fe_3O_4 magnetic nanomaterial as multifunctional heavy metal scavengers is provided for removing one or more heavy metals from various mediums/aqueous systems to find end/use and application as an effective regenerative adsorbent that effectively absorbs the heavy metals, avoid the bleeding of either the adsorbent and/of the heavy metals through the filters and yet is amenable to cost effective industrial processes.

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CLAIM 1

Adsorbent material comprising mesoporous secondary nanostructures of Fe_3O_4 with pores providing a magnetic hierarchical structure with surface area and adsorption sites, in combination for adsorption of heavy metals ions from aqueous media, including magnetic separation, and regeneration.

