

Synthesis and application of polyimide aerogel imbedded with iron oxide nanoparticle

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In this study, we thought out a new way for synthesizing the porous media based on polyimide with iron oxide nanoparticles. The product shows paramagnetic properties with its hierarchical porous structure retained, which can be used for targeting vehicle in medical application and other precise usage. The iron oxide nanoparticles were uniformly distributed in the aerogel, showing its paramagnetic property. Its chemical and structural properties were checked and showed great thermal stabilities and uniform porous structure. This newly designed porous material is tested for various application in environmenatal and biological fields.