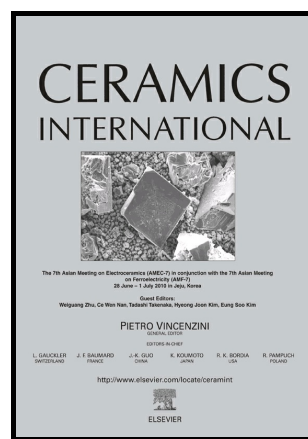


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Assembled porous Fe₃O₄@g-C₃N₄ hybrid nanocomposites with multiple interface polarization for stable microwave absorption

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Abstract

Magnetic/dielectric composites can offer good electromagnetic impedance. However, the strategy for embodying strong absorbing ability and broad effective absorption band simultaneously is a significant challenge. Therefore, assembled porous Fe₃O₄@g-C₃N₄ hybrid nanocomposites have been designed and synthesized, in which porous Fe₃O₄ nanospheres assembled by ~3 nm Fe₃O₄ nanoparticles are surrounded by g-C₃N₄. The introduction of g-C₃N₄ improves dielectric loss ability at 2-18 GHz and magnetic loss ability at 2-10 GHz, and enhances attenuation constant, and increases electromagnetic impedance degree. These merits ensure that assembled

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