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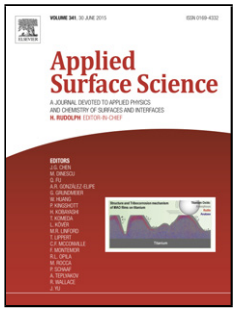

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Microwave Absorption Enhancementand Dual-nonlinear Magnetic Resonanceof UltrasmallNickel with Quasi-one-dimensional Nanostructure

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Graphical Abstract

The Ni/PVDF nanocomposites were fabricated by a sample hot press process. The maximum reflection loss value of the composites with the filler content of 20 wt % can reach –42.08 dB at 7.4 GHz. The effective bandwidth (reflection loss was less than –10 dB) covers the frequency range from 3.36 to 14.08 GHz with an absorber thickness of 2.0–5.0 mm. The enhanced mechanism of the composites was explained in detail.

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