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Graphene platelets/aluminium nitride metacomposites with double percolation property of thermal and electrical conductivity

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Abstract

Graphene platelets/aluminium nitride (GPLs/AlN) metacomposites with double percolation property of thermal and electrical conductivity were successfully fabricated by spark plasma sintering. Microstructures and phase composition of the GPLs/AlN metacomposites were investigated by field emission scanning electron microscopy, X-ray diffraction and Raman spectroscopy. With increase of the GPLs contents, the double percolation property of thermal (19.27 wt% GPL) and electrical