

Properties of Hot-Pressed Alumina-Graphene Composites

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Abstract : The polycrystalline dense alumina shows thermal conductivity about 30 W/mK and very high electrical resistivity. These last two properties can be modified by introducing commercial relatively cheap graphene nanoparticles which, as two-dimensional flakes show very high thermal and electrical properties. The aim of this work is to show that it is possible to manufacture the anisotropic alumina-graphene material with directed multilayer graphene particles. Such materials can show the anisotropic properties mentioned before.

Keywords : alumina, composite, hot-pressed, graphene, properties

Conference Title : ICMSME 2015 : International Conference on Materials Science and Mechanical Engineering

Conference Location : Bangkok, Thailand

Conference Dates : December 17-18, 2015