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Advances in Thermal Interface Materials (TIMs) with 2D Fillers

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Message from the Guest Editor

Dear Colleagues,

Thermal management requirements have been increasing rapidly in the past few decades with the developments in consumer electronics. Faster microprocessors, high-powered LEDs, battery and photovoltaic modules, and 5G communication systems are examples of only some of the applications that require more efficient thermal interface materials (TIMs). We have also seen significant research progress in the last decade in TIMs enhanced by 2D crystals. Graphene and hexagonal boron nitride offer high thermal conductivity, surface area, and aspect ratio etc., which make them some of the most promising nanofillers for the next generation of TIMs.

The aim of this Special Issue is to capture the latest advances in the area of polymer as well as metal matrix composite TIMs enhanced with 2D fillers. Contributions on synergistic property enhancements obtained from 0D and 3D combined with 2D fillers are also welcomed. Hence, we encourage authors to submit details of their latest achievements to this Special Issue. Original research articles, review articles, as well as short communications are invited.

Dr. Panagiotis Karagiannidis

Guest Editor



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Special Issue



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Message from the Editor-in-Chief

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