

Supplementary Information

Synchronously Enhancing Thermal Conductivity and Dielectric Properties in Epoxy Composites *Via* Incorporation of Functionalized Boron Nitride

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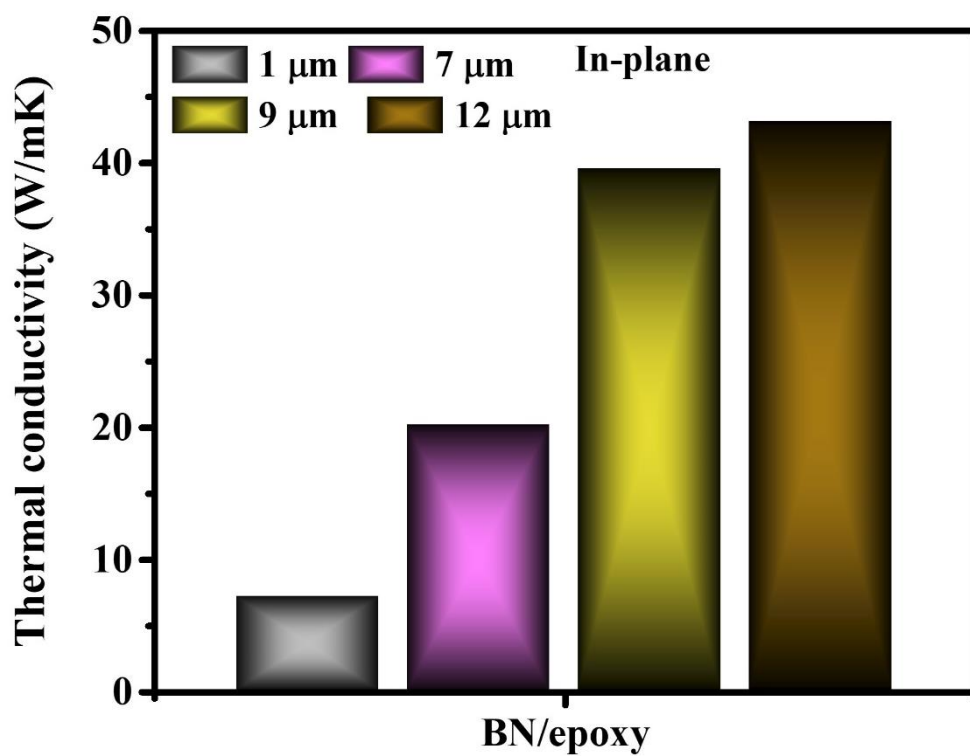


Figure S1. Thermal conductivity of BN/epoxy composite using various size of fillers (h-BN) such as 1, 7, 9 and 12 μm.

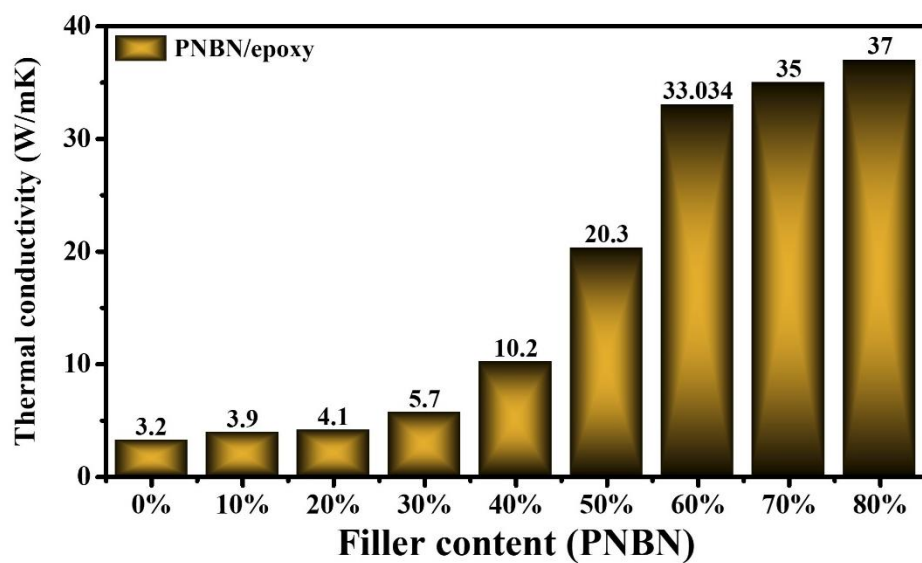


Figure S2. Thermal conductivity of PNB/epoxy composite at various filler loading content.

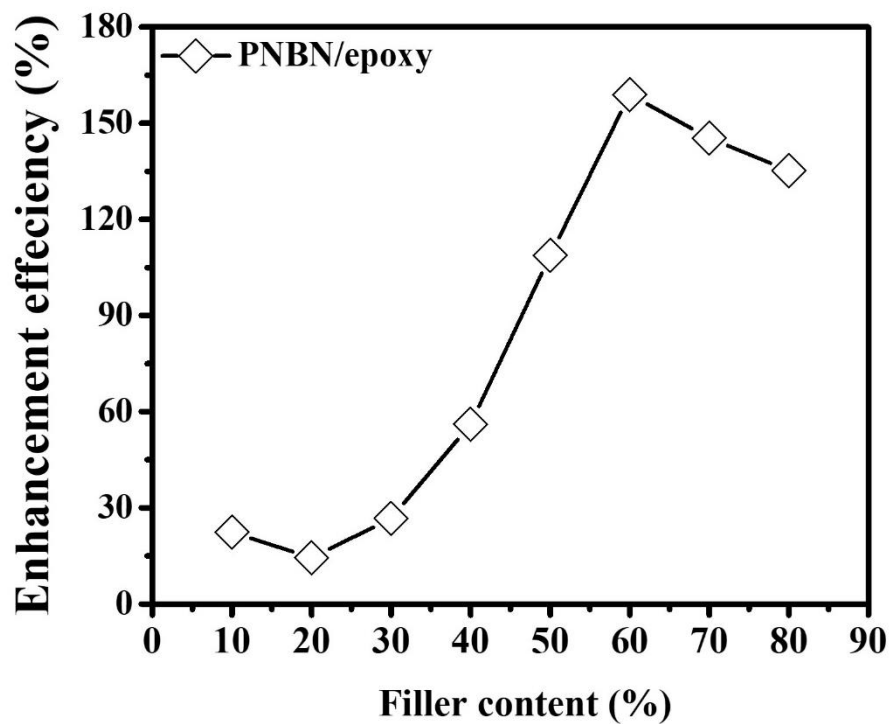


Figure S3. Enhancement efficiency (%) of PNBN/epoxy composite at various filler loading content.

Table 1: Summary of the performance of thermal conductivity (T.C.) with respect to filler loading content employing the BN/epoxy based composites and their comparison with the previously published literature.

Materials	Filler loading (%)	T.C. (W/mK)	Test Method	Ref.
DNBN/epoxy	60	47	Laser flash	Present work
PBNB/epoxy	60	39	Laser flash	
BN/epoxy	60	33	Laser flash	
EP/BN	36	1.05	TPS	[1]
EP/BN-ODA	3	0.329	Laser flash	[2]
EP/BN-HBP	6	0.246	Laser flash	[3]
EP/3D-BNNS	9.3	2.85	Laser flash	[4]
EP/3D-C-BNNS	9.6	3.13	Laser flash	[5]
EP/aligned BN	44	9	Laser flash	[6]
EP/aligned BN	40	5.2	Laser flash	[7]
EP/BN/Ag NPs	25	3.06	Laser flash	[8]
EP/BN	17.5	0.91	Laser flash	[9]
EP/BNNS	12	0.387	Laser flash	[10]
EP/BN	18	1.037	Hot wire	[11]
EP/h-BN-PGMA	15	1.198	Hot wire	[12]

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