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ABSTRACT

Polyimide (PI) composite aerogels with enhanced flame-retardant performance have been fabricated with the addition of environmentally friendly flame-retardant additives (i.e. graphene (G) and montmorillonite (MMT)) via an eco-friendly freeze-drying method followed by a thermal imidization process. Through the strong interaction between the two components, graphene oxide/MMT hybrid can be synergistically dispersed in water, providing good dispersibility in PI matrix, thus endowing the composite aerogels with enhanced