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Dielectric response and breakdown behavior of polymer-ceramic nanocomposites: the effect of nanoparticle distribution

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Abstract: Polymer-ceramic nanocomposites play an essential role in the application of pulsed power system, due to their ultrahigh power density and fast charging–discharging capability. It is very promising for them to be applied in energy storage capacitors and hybrid electric vehicles for the recent progressing in the improving energy density. The volume fraction, morphology, size, aspect ratio and distribution of ceramic particles have been reported to have significant effect on the dielectric response and breakdown strength of nanocomposites, which are two main factors that

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