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Generating High Dielectric Constant Blends from Lower Dielectric Constant Dipolar Polymers
using Nanostructure Engineering

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Abstract

It is a great challenge in dielectric polymers to achieve a high dielectric constant while maintaining low dielectric loss and high operating temperatures. Here we report that by blending two glassy state dipolar polymers i.e., poly(arylene ether urea) (PEEU, $K = 4.7$) and an aromatic polythiourea (ArPTU, $K = 4.4$) to form a nanomixture, the resulting blend exhibits a very high

¹ These authors contributed equally to this work

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