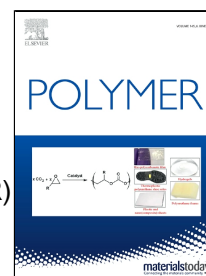


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Determination of phase specific localization of carbon black in ternary rubber blends: a macroscopic approach by Fourier transform infrared spectroscopy (FTIR)

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ABSTRACT

The phase specific localization of the reinforcing fillers like carbon black (CB), which has been known to influence the physical and mechanical performance of the rubber blends, can be determined by different characterization techniques, however, only for binary rubber blends. They have been failed so far when applied for more complicated systems like filled ternary rubber blends. In the present work we introduced a new technique using the attenuated total reflection Fourier transform infrared spectroscopy (*ATR-FTIR*) with germanium crystal for characterization of the specific localization of CB in a ternary blend of solution styrene butadiene

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