

Abstract Submitted
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Viscoelastic properties of polycarbonate, poly(methyl methacrylate) and their nanocomposites via nanoindentation experiments¹ KENNETH NOLL, MARANDA WONG², ERIN EVKE³, DENIZ RENDE, RAHMI OZISIK, Rensselaer Polytechnic Institute — Polycarbonate, PC, and poly(methyl methacrylate), PMMA, are economic alternatives to glass mainly due to their mechanical and optical properties. The uses of PC and PMMA can be expanded if their impact response and scratch resistance are improved. Carbon nanotubes are known to increase the toughness of PMMA and improve its resistance impact forces. In the current study, the viscoelastic properties of PC, PMMA and their nanocomposites were investigated via nanoindentation experiments. Stress relaxation experiments were performed under various loading rates.

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²Undergraduate student

³Undergraduate student

Deniz Rende
Rensselaer Polytechnic Institute

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