

Abstract Submitted  
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**Charge transport and structural dynamics in ultra-thin films of polymerized ionic liquids**<sup>1</sup> MAXIMILIAN HERES, TYLER COSBY, Univ of Tennessee, Knoxville, STEFAN BERDZINSKI, VERONICA STREHMEL, Department of Chemistry and Institute for coatings and surface chemistry, Hochschule Niederrhein University of Applied Sciences, ROBERTO BENSON, JOSHUA SANGORO, Univ of Tennessee, Knoxville — Ion conduction and structural dynamics in a series of ultra-thin films of imidazolium based polymerized ionic liquids are investigated using broadband dielectric spectroscopy, atomic force microscopy, and ellipsometry. No alteration in the characteristic charge transport rate is observed between bulk sample and films as thin as 12nm. These results are discussed within the recent approaches proposed to explain the confinement effects on structural dynamics in polymers and low molecular weight ionic liquids.

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