

IONICALLY CONDUCTING POLYMER-SALT COMPLEXES**ROGER FRECH****MAX-PLANCK INSTITUT FUR POLYMERFORSCHUNG, MAINZ, GERMANY
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Ionicly conducting polymers offer significant advantages as solid electrolytes due to their mechanical properties which permit the preparation of films. One of the most widely studied of these systems is polyethers such as poly(ethylene oxide) and poly(propylene oxide) complexed with salts of low lattice energy. This talk will discuss the general characteristics of polymer-salt complexes, including their thermodynamic stability and non-Arrhenius behaviour of the ionic conductivity. Based on a recent series of spectroscopic studies, this talk will then examine the nature of the cation-polymer interaction including the modification of polymer dynamics upon complexation. Finally, the role of the cation-anion interaction will be briefly discussed.