**Electrical transport in Li2O-P2O5-GeO2 glass-ceramics**

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Mixed glass former system with the composition 40Li2O-(60-x)P2O5-xGeO2, x = 0-25 mol% was chosen for the investigation of the effect of induced crystallization on electrical properties. Gradual addition of GeO2 units into phosphate chains causes a depolymerisation which leads to facilitated Li+ ions mobility. Therefore, our interest was to investigate how various steps of crystallization influence the electrical transport in these glasses. Electrical properties of glass-ceramics have been studied using impedance spectroscopy and correlated with the results of structural analysis. Heat-treated glasses have been characterized by XRD, MAS NMR and SEM. With increasing GeO2 content from single to multi crystalline phase glass-ceramics were formed. For GeO2-free glass-ceramic a slight increase in the electrical conductivity was evidenced whereas a conductivity decrease for glass-ceramics containing up to 20 mol% of GeO2 is related to the reduction of number of Li+ ions in residual glass matrix since the LiPO3 crystalline phase was formed. The crystallization in the glass-ceramics with higher GeO2 content causes an increase in the electrical conductivity due to formation of crystallites with well-defined shapes, which pronounces easy conduction pathways for Li+ ions transport within crystalline grains and along crystalline grain boundaries. The contribution of grains and grain boundaries to the total electrical transport in these polycrystalline glass-ceramics is discussed in detail.