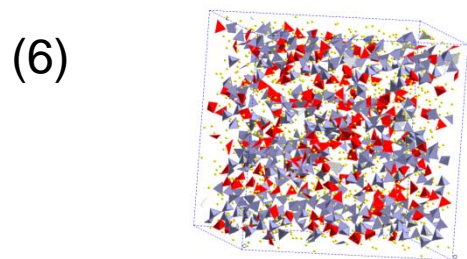
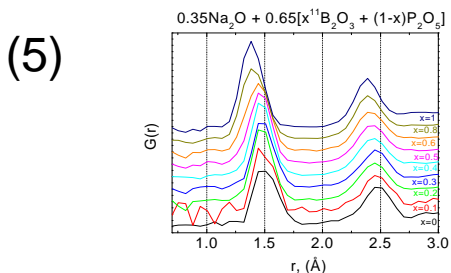
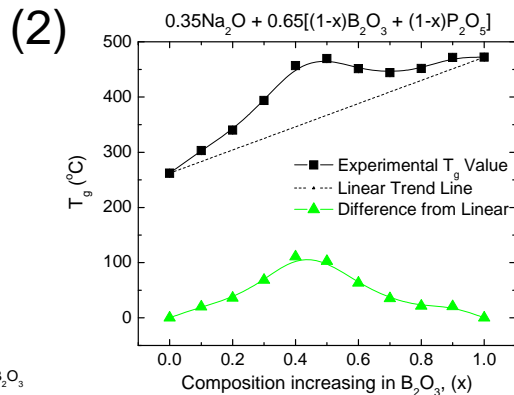
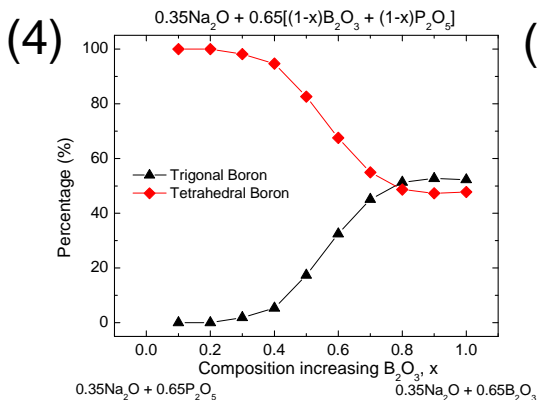
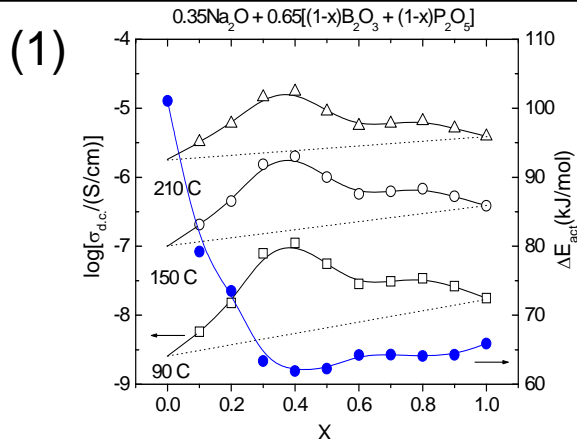
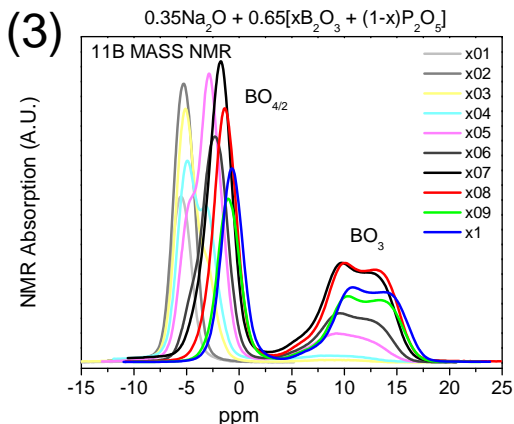


# Materials World Network: An International Collaborative Educational and Research Program in the Study of Mixed Glass Former Phenomena in Materials

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- **Objective:** Using an International collaboration, US (ISU, CMU, CU), Germany (IU, MU), and Sweden (CU), we seek to understand non-linearities that occur in nearly all physical properties of glass when the alkali modifier content is fixed, but the ratio of two different glass formers is varied, most importantly the d.c. ionic conductivity (1), and  $T_g$  (2).
- **Results:** Studies of glass structure such as 31P and 11B MASS NMR (3) show that the nature of the short range structures in these glasses are a strong function of the glass former ratio (4).
- **Future Work:** New studies are in progress to examine other systems (sulfide glasses) and to examine glass intermediate range structure by combining neutron and x-ray scattering (5) with RMC modeling and simulation (6).