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Structure and dynamics of levitated liquid aluminates LOUIS HENNET, IRINA POZDNYAKOVA, CRMHT, 1d avenue de la Recherche Scientifique, 45071 Orléans, France, MARIE-LOUISE SABOUNGI, CRMD, 1b rue de la Férollerie, 45071 Orléans, France, DAVID L. PRICE, CRMHT, 1d avenue de la Recherche Scientifique, 45071 Orléans, France — We have used the aerodynamic levitation technique combined with CO_2 laser heating to study the structures of liquid $CaAl_2O_4$ and $MgAl_2O_4$ with x-ray and neutron diffraction. We determined the structure factors and corresponding pair correlation functions describing the short-range order in the liquids. The combination of the two scattering techniques makes it possible to derive information not accessible with a single measurement. We have also obtained information on the dynamics of liquid $MgAl_2O_4$ with inelastic x-ray scattering.

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