LASER INDUCED FLUORESCENCE SPECTROSCOPY OF Mg OLIGOMERS ATTACHED TO LARGE HELIUM CLUSTERS

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Recently we have conducted a series of experiments on the spectroscopy of alkali oligomers attached to large He clusters obtaining novel information on two and three body intermolecular forces in the high spin states of these systems. We are now interested in extending this type of study to alkaline earth oligomers and are investigating Mg to complement the recent work of Stienkemeier *et al.*[a] on Sr and Ca atoms. A second area we are also pursuing is the study of Mg chemiluminescent reactions which have been thoroughly studied in the gas phase.

[a] *J.Chem.Phys.* 107 (1997) 10816