



Spectroscopy and Dynamics in liquid He Nanodroplets

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Superfluid ^4He nanodroplets provide a novel and almost ideal matrix for spectroscopy of atoms and molecules. Thanks to the efforts of several laboratories, we now have representative rotational, ro-vibrational, and electronic spectra of a number of different atomic and molecular species.

This talk will survey the properties of helium droplets what general lessons have been learned from the spectroscopy of doped droplets, such as times scales for some basic dynamic processes and the important role played by the thermal population of translational states. Outstanding questions and new directions for research in this field will also be discussed.