

Abstract Submitted
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Proton Exchange Reactions in Deuterium Water Mixtures¹ GUSTAV BORSTAD, Institute for Shock Physics, Dept. of Physics, Washington State University, Pullman, WA 99164, CHOONG-SHIK YOO, Institute for Shock Physics, Dept. of Chemistry, Washington State University, Pullman, WA 99164 — Binary mixtures of water and hydrogen under pressure are of interest both as fundamental systems in physics and chemistry and due to their applicability to fuel cells. Their behaviors at extreme pressures and temperatures are also of significance to understanding the interaction of chemical species in the interiors of giant gas planets and other planetary objects. In this talk, we will present high-pressure Raman data of deuterium water mixtures, which provides both kinetic information regarding the proton exchange reactions and the structure of deuterium in the mixtures.

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