

***AB INITIO* INVESTIGATIONS OF HIGH-PRESSURE LITHIUM**

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ABSTRACT. Through a combined use of DFT-based classical and path-integral molecular dynamics, we have investigated the high-pressure phase diagram of lithium between 200 and 600GPa. In this poster, we present some preliminary results regarding the low-coordination liquid phase as well as our estimates for the location of the melting line. We will also investigate the impact that the inclusion of nuclear quantum effects has on the classical phase diagram.