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Simulating the Phase Separated rp-ash MATTHEW CAPLAN,
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composition and phase separation of rp-ash on accreting neutron stars determine
the thermal properties of the crust which must be understood to interpret obser-
vations of crust cooling in X-ray bursts. In this work, we report on recent large
scale molecular dynamics simulations of the outer crust. Using the crust composi-
tions calculated by Mckinven et al. 2016, we study the structure of the crystal that
forms, as well as diffusion and thermal properties of the crust.

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