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Dear Editorial Board,

Journal of Nuclear Materials

On behalf of my co-authors and myself, I am hereby submitting our manuscript, entitled ``*An ab initio molecular dynamics investigation of the thermophysical properties of molten NaCl-MgCl2*”, for publication in the *Journal of Nuclear Materials*. This article provides a computational study of NaCl-MgCl­2. The entire compositional spectrum was analyzed at relevant temperatures from 1300 K down to 800 K. Computational work determined the density, compressibility, heat capacity, enthalpy, and coefficient of thermal expansion. This work is the first to report a change to monotonic increasing density of NaCl-MgCl2 with respect to composition at temperatures above 1100 K. This work serves to alleviate the current knowledge gap in thermophysical properties of molten salts for both molten salt reactor. This is the most complete evaluation of the thermophysical properties of the NaCl-MgCl2 system across composition and temperature to date.

This work is new and we feel adds greatly to the scientific community.

Sincerely,

Benjamin Beeler