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Calculation of the latent heat at the phase transitions in magnesium FERNANDO MAGAÑA, GREGORIO RUIZ-CHAVARRIA, GERARDO J. VAZQUEZ, Instituto de Fisica, UNAM — From a first principles local pseudopotential we have studied the structural magnesium stability under high pressures. We found two possible phase transitions. One going from the structure hcp to bcc and another one from the structure bcc to the fcc. The first transition has been reported experimentally and agrees with our results. Another authors have obtained similar results to ours using more complicated approaches. However, our value of pressure for the second transition is usually larger than the corresponding one from other approaches. Here, we calculated the latent heat associated to these transitions.

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