HW #7: Interactions - Part II

1. –	The	Pair	Poten	tial:
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	Wh	ny is a typical	interatomic potentia	l, such as in Hofmann	Fig. 2.1. so a	ısvmmetric
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2. - *Bonding*:

- a) Where does the energy gained in metallic bonding come from?
- b) Remind yourself of the ∞-lattice Madelung constant. Calculate the potential energy for an ion in a sodium chloride crystal (which has an interatomic distance, a, of 2.81 Å), in units of eV. Neglect the influence of the repulsive potential. From this, calculate the lattice energy of sodium chloride and compare the result to the experimental value of 776 kJ mol⁻¹. Also calculate the cohesive energy in the same units.