

FIG. 3a

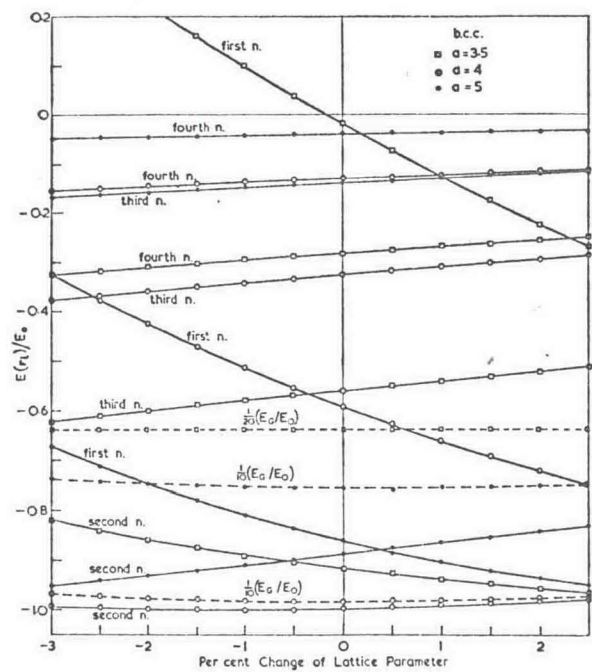


FIG. 3b

FIG. 3. Interaction energy as a function of lattice parameter for various neighbours interacting with Morse potential of (a)  $a = 4$  and  $5.5$ , in a face-centred cubic crystal, and (b)  $a = 3.5$ ,  $4$ , and  $5$ , in a body-centred cubic crystal. The broken lines show a fraction of the total lattice energy.

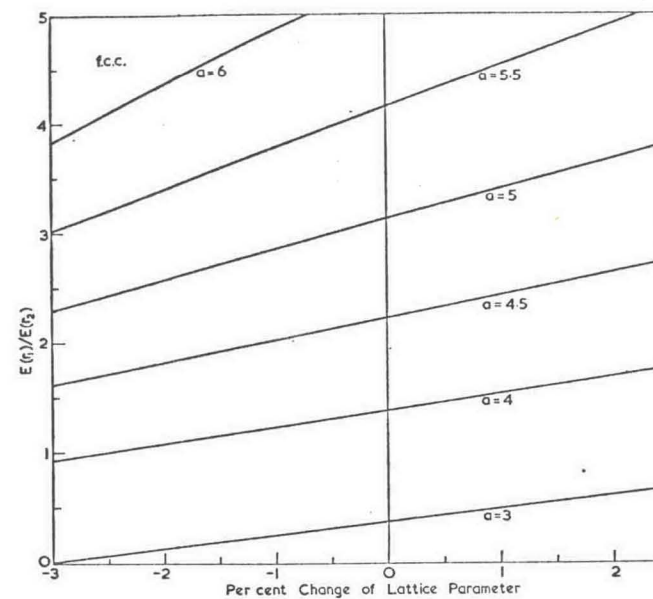


FIG. 4a

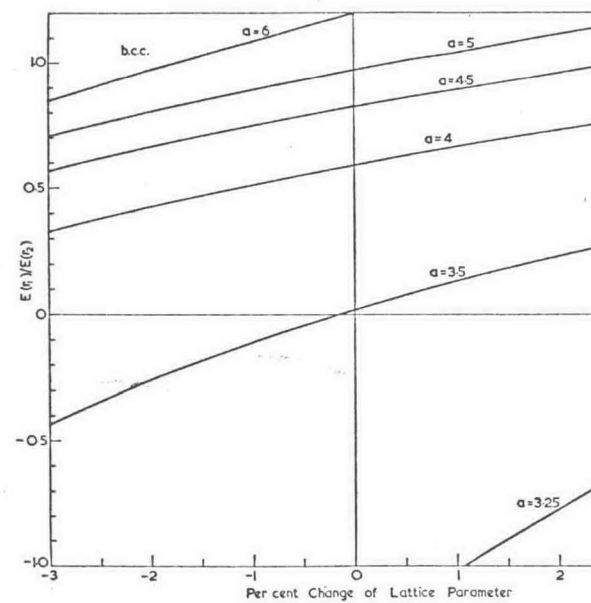


FIG. 4b

FIG. 4. Variation with lattice parameter of  $E(r_1)/E(r_2)$  for various Morse potentials in (a) a face-centred cubic crystal and (b) a body-centred cubic crystal.