

NAME:

STUDENT ID:

Problem

1. A crystal that has no defects (free of dislocations) would be a crystal that contain defects.
a. softer than b. stronger than c. as strong as
2. Pearlite is composed of
a. one phase b. two phases c. three phases
3. Face center cubic crystal structure has slip systems of the family $\{...\}$ planes $\langle ... \rangle$ directions.
a. $\{111\} \langle 1\bar{1}0 \rangle$ b. $\{110\} \langle 111 \rangle$ c. $\{211\} \langle 111 \rangle$
4. HCP metals are considered in room temperature deformation
a. brittle b. ductile c. as ductile as fcc metals.
5. During plastic deformation dislocation density.....
a. increase b. decrease c. do not change