Assignment 0

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment. 

Due on 2019-02-04, 23:59 IST.

1) The label of the highest order axis of rotation for a hexagonal close packed crystal is

- $C_3$
- $C_6$
- $S_3$
- $S_6$

No, the answer is incorrect.
Score: 0
Accepted Answers: $C_6$

2) A compound that typically crystallizes in a pervoskite structure is

- SrTiO$_3$
- MgAl$_2$O$_4$
- LiNbO$_3$
- Mg$_2$SiO$_4$

No, the answer is incorrect.
Score: 0
Accepted Answers: SrTiO$_3$

3) The enthalpy of formation of Frenkel defects in AgCl (Molar Mass = 143 g/mol) is 1.35 eV at 300 K. The number of Frenkel defects in 1 ng (nano gram) of AgCl is (closest to)

- 20
- 2000
- 2,000,000

1 point
4) The Bloch theorem assumes that the Bloch electrons are:
- [ ] do not feel the effect of the crystal structure
- [x] do not feel the effect of interaction with each other
- [ ] fixed to an atom
- [ ] free electrons within the 3D crystal

No, the answer is incorrect.
Score: 0

Accepted Answers:
do not feel the effect of interaction with each other

5) The group notation for a monatomic fcc crystal in the Hermann-Mauguin convention is:
- [ ] P3m
- [ ] Fmmm
- [ ] Fm-3m
- [ ] None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
Fm-3m