

Cohesion

Introducing

Description

Cohesion of Solids :

- Models of cohesive energy of the solid state - Lennard-Jones potential - Condon-Morse potential
- Properties and physical quantities related to cohesion: compressibility, thermal expansion, melting temperature, allotropic transformations
- Applications to ionic crystals and crystals based on van der Waals interaction

Objectives

By the end of this teaching unit, students should have understood and be able to explain (main concepts) the physical models of cohesion of solid materials on the atomic and molecular scales, as well as the links between these models and macroscopic physical quantities.

Necessary prerequisites

L2 degree in physics or materials science

Évaluation

L'évaluation des acquis d'apprentissage est réalisée en continu tout le long du semestre. En fonction des enseignements, elle peut prendre différentes formes : examen écrit, oral, compte-rendu, rapport écrit, évaluation par les pairs...

Practical info

Location(s)

 Toulouse