



## CHIM2242 Chemistry of inorganic solids

[22.5h+0h exercises] 2.5 credits

This course is not taught in 2006-2007

This course is taught in the 1st semester

**Teacher(s):** Michel Devillers  
**Language:** French  
**Level:** Second cycle

### Aims

Course for the students in their last year interested in the physico-chemistry of inorganic solids and in the development of new materials. It aims at giving a fundamental comprehension in the chemical bonding in solids and illustrating the multiple applications that come from it.

### Main themes

The following themes will be covered :

- the different types of defects in inorganic solids and their formation mechanisms.
- the description of chemical bonding in inorganic solids (band theory).
- the description of electrical (conductors, semi-conductors, superconductors), magnetic and optical properties of the main inorganic solids, and the main applications they are used for in the field of new materials.

### Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

Prerequisites: inorganic chemistry (CHIM2130). Basics in crystallography (CHIM1241A).

Evaluation: oral examination.

Support:

- Introduction à la chimie du solide, L. Smart and E. Moore (trad. J.P. Jolivet), Masson, 1997.
- Solid state chemistry and its applications, A.R. West, Wiley, 1984.
- Overhead transparencies used by the teacher.

### Other credits in programs

**CHIM22**                      Deuxième licence en sciences chimiques                      (2.5 credits)