

SOLID STATE CHEMISTRY	
Excercise 2: Closed symmetry	
Faculty: CHEMICAL TECHNOLOGY Speciality: Chemical technology	Year: II Sem: IV
Teacher:	Date of excercise:
Students:	
Passed:	

Aim of the exercise:

theoretical - getting to know the crystallographic systems, learning the elements of closed symmetry and importance of Miller indices;

practical – mastering the ability to describe the shape of the tetrahedron for All crystallographic systems, the ability to analyze the elements of symmetry.

Study issues:

closed symmetry elements (axis of symmetry, plane, center of symmetry), degrees of symmetry, symmetry classes, basic tetrahedron, elementary cell, crystal definition, crystallographic systems.

Literature:

1. „Introduction to physical polymer science”, L. H. Sperling, Wiley, John & Sons, New York 2005
2. „Solid State Chemistry” R. C. Ropp, Elsevier Science, 2003
3. Zarys krystalochemii T.1 Krystalochemia ogólna”, T. Penkala, PWN, Warszawa

Exercise performance:

1. Entrance test.
2. Work with the computer programs – elements of symmetry, drawing and indexing of crystal planes and directions.