

## **Crystallography (*WS 2024/2025*)**



**Lecture 1. Introduction**

**Lecture 2. Description of 2D crystal lattice**

**Lecture 3. Description of 3D crystal lattice**

**Lecture 4. Formation of real crystals. External morphologies**

**Lecture 5. Symmetry in crystals**

**Lecture 6. Symmetry of a crystal lattice**

**Lecture 7. Symmetry of a crystal lattice (continuation)**

**Lecture 8. Unit cell**

**Lecture 9. Point groups**

**Lecture 10. Space symmetry elements + 2D SPACE symmetry groups**

**Lecture 11. Space symmetry elements + 3D SPACE symmetry groups**

**Lecture 12. Space symmetry groups. Crystal structure**

## **Recommended Literature**

1. Phillips, F.C.: ” *An Introduction to Crystallography*”
2. C. Giacovazzo, et al.: “ *Fundamentals of Crystallography*”
3. Kleber, W., Bausch, H.-J., Bohm, J.: “ *Einführung in die Kristallographie*“
4. Borchard-Ott, W: “ *Kristallographie*”
5. Woolfson, M. M.: “ *An Introduction to X-ray Crystallography*”



## **Recommended Websites**

1. International Union of Crystallography - IUCr  
<https://www.iucr.org/>
2. International Year of Crystallography  
<https://www.iycr2014.org/>
3. Mineralogy Database  
<http://webmineral.com/>