

Actually, the Institut für Kristallographie is operating two single crystal neutron diffractometers at the hot source of the FRM II:

- HEiDi, crystal structure analysis with short wave lengths
- POLI, investigation of complex magnetic structures using polarized neutrons.

In the last years, many crystallographic laboratories and chairs disappeared at German universities. As a result a reduction of the level of crystallographic knowledge and competence on the side of theory as well as on the application of methods is becoming clearly visible.

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Crystallography in Turkey

Engin Kendi¹

1. Hacettepe University, Ankara, Turkey

email: engin.kendi@gmail.com

The first research laboratory in Turkey was established in the 1950s by the Swedish physicist Prof. Dr. Harald PERLITZ as 'X-ray Crystallography Laboratory at Ankara University. In the mid 1960's started the X-ray crystallography studies, which used photographic single crystal data collection techniques. In 1970 a new laboratory for structural research was established at Hacettepe University in Ankara. The purchase of a CAD-4 diffractometer in 1992 attracted young scientists to do graduate work in X-ray crystallography. In 1999 a rotating anode X-ray generator was put in operation in the same department. After the purchase of Rigaku XRPD, in 2009 SWAXS system was established and nanostructure studies using HECUS SWAXS system have began.

Hacettepe University Crystallography Laboratory has become the leading centre of X-ray crystallography in the country.

Today from east (Dicle University in Diyarbakır) to west (Dokuz Eylül University DEU in İzmir) of Turkey many universities were equipped to several X-ray systems. In these laboratories Computational chemistry, particularly topological analyses of electron density-QTAIM studies, molecular spectroscopy etc.; Data mining studies on Cambridge Structural Database (CSD); Protein Purification and Structural Characterization studies ; Energetic materials; Semicrystalline Hydrogels; Structure solution studies on powder crystals; production, research and development studies of the nanostructured materials which can show interesting biophysical, physicochemical and physical (magnetic, electric and mechanic) properties were performed.

After these developments, in February 2001 TCA (Turkish Crystallographic Association) was founded and in August 2001, The European Crystallographic Association welcomed the Turkish Crystallographic Association as a new member . After that TCA has been accepted 53rd member by the IUCr in 2014 Canada Meeting.

The 25th European Crystallographic Meeting was organized in İstanbul in 2009. 880 delegates and 70 exhibitors were attended to the Meeting.

In the frame of IYCr2014 International Crystallography Year Activities, The Open Labs. organized in collaboration with UNESCO and IUCr and TCA were held in DEU, İzmir (2014) and Bilkent U., Ankara (2015). TCA organized a Course on Powder Diffraction for MS and PhD students. The course was held at the Hacettepe University. Furthermore crystallographic activities for schoolchildren performed to celebrate IYCr2014; Crystallography Day İstanbul Turkey (23rd May 2014) and İstanbul Crystal Growth Competition (March 10-April 18) .

Keywords: Crystallography, Turkey