

Commission on Structural Chemistry

THE IUCR COMMISSION ON STRUCTURAL CHEMISTRY (CSC)

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Introduction

The Commission on Structural Chemistry had its genesis in the former IUCr Commission on Small Molecules. This was one of the earliest commissions in the IUCr stable, reflecting the growth of crystallography in the elucidation of structures. In 1996, the name of the commission was changed to the Commission on Structural Chemistry (CSC) in recognition of the shifting nature of crystallographic analysis.

Terms of Reference and Membership

The terms of reference for the Commission are:

- To advise the IUCr on organizing or sponsoring sessions on small-molecule structural analysis at Congresses and conferences.
- To promote and coordinate scientific exchange between countries in the field of small-molecule structural analysis.
- To cooperate with the Commissions of the Union on matters dealing with small-molecule structural analysis.
- To cooperate with other international bodies concerned in small-molecule structural analysis.

Current membership of the Commission comprises ten members from ten countries and six continents, and a further nine consultants. The latter have been selected from among experienced commission members as well as experts from related organisations.

Activities of the Commission

As laid out in the terms of reference, the CSC has a broad mandate, with an interest in all aspects of small-molecule

(i.e. non-macromolecular) crystallography. Even that definition is currently a topic of some discussion, given the growth in crystallography of non-biological materials that could be considered macromolecular.

Primarily the CSC concerns itself with the organisation and support of conferences which have a strong structural or chemical crystallography component. This is not a trivial exercise and has stimulated much discussion among members of the commission. Many conferences today will have a significant number of presentations which include structural data, often including several crystal structures. Alone, this would not render such a conference necessarily as one with a “structural chemistry” focus. For this reason the CSC considers the role of the speakers and the focus of the meeting, with a wish to see the participation of crystallographers from different backgrounds, who will advance the discussions around the role structure plays in advancing the science presented.

The CSC is particularly keen to encourage schools, workshops, or conferences which promote participation by students or early-career researchers, and which are organised in regions historically under-represented in crystallography.

Other areas of interest to the CSC lie in the overlap of chemical crystallography with areas of interest to other IUCr commissions. For example, at least one member or consultant on the CSC is selected from among the powder diffraction community, the Cambridge Crystallographic Data Centre, the inorganic and mineral structure community, and the materials science community. This is an attempt to represent the multi-disciplinary nature of crystallography, and a recognition that many researchers carrying out excellent work in structural chemistry do not consider themselves as primarily crystallographers.