

Making an imPACT

Impact of Scientific Developments on the Chemical Weapons Convention (IUPAC Technical Report)

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Pure and Applied Chemistry, 2008

Vol. 80, No. 1, pp. 175–200

doi:10.1351/pac200880010175

This report summarizes the findings and recommendations of an international workshop that was organized jointly by IUPAC and the Organisation for the Prohibition of Chemical Weapons (OPCW), and held in Zagreb, Croatia, from 22 to 25 April 2007. It was held to assist with preparation for the Second Review Conference of the Chemical Weapons Convention (CWC), which will commence in April 2008. The CWC has been in force since 29 April 1997, and today 182 States have joined the Convention.

The CWC aims at the total prohibition of all chemi-

cal weapons (CW) and the destruction of all CW stockpiles and production facilities by 2007. Extensions have been agreed upon and, for some CW stockpiles, the deadline is now 2012. This disarmament is subject to strict international verification by the OPCW. The CWC also prohibits the development, production, acquisition, stockpiling, and retention of CW and requires national implementation measures, including legislation, together with the international verification of chemical industry facilities. Furthermore, the CWC aims to strengthen States Parties' capacities in the field of protection against CW, and encourages international cooperation in the peaceful application of chemistry.

The CWC requires that reviews of the operation of the Convention are carried out at five-year intervals and specifies that such reviews "shall take into account any relevant scientific and technological developments," so as to ensure the continued effectiveness of the treaty and of its verification and implementation systems. This report has been prepared to assist the parties of the CWC with that review.

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Graphical Representation Standards for Chemical Structure Diagrams (IUPAC Recommendations 2008)

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Pure and Applied Chemistry, 2008

Vol. 80, No. 2, pp. 277–410

doi:10.1351/pac200880020277

The purpose of a chemical structure diagram is to convey information—typically the identity of a molecule—to another human reader or as input to a computer program. Any form of communication, however, requires that all participants understand each other. Recommendations are provided for the display of two-

dimensional chemical structure diagrams in ways that avoid ambiguity and are likely to be understood correctly by all viewers. Examples are provided in many areas, ranging from issues of typography and color selection to the relative positioning of portions of a diagram and the rotational alignment of the diagram as a whole. Explanations describe which styles are preferred and which should be avoided. Principal recommendations include: 1) Know your audience: Diagrams that have a wide audience should be drawn as simply as possible; 2) Avoid ambiguous drawing styles; 3) Avoid inconsistent drawing styles.

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