



Provisional Guidance for Chemistry Notation Using Nemeth in UEB Contexts

Approved March 2017

These guidelines are to be applied in addition to those presented in the most recent edition of *Guidance for Transcription Using the Nemeth Code within UEB Contexts*.

Background

The *Braille Code for Chemical Notation* is based on *The Nemeth Braille Code for Mathematics and Scientific Notation*. Specific provisions for using braille symbols for the construction of chemical notation such as bonds, electron dots, ring structures, and arrows, are outlined in the *Braille Code for Chemical Notation*. If tactile illustrations are used, *Guidelines and Standards for Tactile Graphics* must be followed in preparing the tactile graphics. When transcribing chemistry, biology, and physics texts, to assure proper formation of chemical symbols and structures, refer to the most recent edition of the codes and guidelines as well as any BANA "Guidance" documentation regarding their use in conjunction with UEB.

Front Matter

When the rules of the Chemistry Code are used, the sourcebook must be cited on the Transcriber's Notes page. Chemistry Code symbols used in the volume must appear on the Special Symbols page. Place the symbols under the subheading "Chemistry Code Symbols" and list them in braille order according to the rules of UEB. A description of Chemistry Code formats is not required.

Example 3 *In narrative context, chemical words may be transcribed in UEB.*

PROBLEM: Calculate the mass percent of Cl in Freon 112 (C₂Cl₄F₂).

You are given the molecular formula of Freon 112 and asked to find the mass percent of Cl.

0.58 g C × $\frac{1 \text{ mol C}}{12.01 \text{ g C}}$ = 4.8 × 10⁻² mol C

Example 4 *Symbols of the Chemistry Code such as the chemistry bond symbol in this example must be listed on the Special Symbols page.*

The structural formula for hydrogen peroxide is H–O–O–H.

0.58 g C × $\frac{1 \text{ mol C}}{12.01 \text{ g C}}$ = 4.8 × 10⁻² mol C

Example 5 *Chemistry Code format is followed regarding use of linear fractions when like terms are cancelled, and regarding the special margin requirements for linked expressions. The Chemistry Code is cited on the Transcriber's Notes page. A description of the format is not required.*

Finally, we solve the problem.

$$0.58 \text{ g C} \times \frac{1 \text{ mol C}}{12.01 \text{ g C}} = 4.8 \times 10^{-2} \text{ mol C}$$

0.58 g C × $\frac{1 \text{ mol C}}{12.01 \text{ g C}}$ = 4.8 × 10⁻² mol C

Spatial Diagrams of Molecular Structures

In spatial diagrams of molecular structures, tactile (raised line) representation of the bonds and the chemical arrows is preferred over the use of braille dots.

Exception: Use braille symbols for electron dot bonds as outlined in Section 4.3 of the Chemistry Code.