

## Concise minutes of a virtual meeting of IUPAC Commission I.1

October 22, 2021 12:00-13:00 CEST

Attendees: Martin Quack, Roberto Marquardt, Jim McQuillan, Tim Wallington, Geng Deng, Jan Kaiser, Stuart Chalk, Yutaka Kuroda.

### 1. Approval of minutes of 17 September 2021 meeting

One small correction. Minutes accepted as read.

### 2. Role of I.1, discussion of objectives

We agreed to publish the following text as objectives on the Commission I.1 webpage ([iupac.org/body/110](http://iupac.org/body/110)):

#### Commission 1.1 on Physicochemical Symbols, Terminology and Units.

Commission 1.1 coordinates International Union of Pure and Applied Chemistry (IUPAC) activities related to defining, formulating, and disseminating good practice on physicochemical symbols, terminology, and units, and ensuring their long-term continuity.

Its main task is editing the book "Quantities, Units, and Symbols in Physical Chemistry", known as the Green Book of the International Union of Pure and Applied Chemistry (IUPAC). The 3rd edition was published in 2007 and the 4th edition is close to completion. This book provides a readable compilation of widely used terms and symbols from many sources together with brief understandable definitions. A full text-searchable PDF document is freely available (<https://iupac.org/what-we-do/books/greenbook>).

The Commission initiates, supervises and coordinates translations of the Green Book. French, Japanese, Portuguese, and Italian translations are available; a Chinese and a German translation are planned. The Commission also coordinates the preparation of abridged didactic versions of the Green Book.

Commission 1.1 exchanges information related to physicochemical symbols, terminology, and units with other IUPAC bodies (e.g., ICTNS, the Interdivisional Committee on Terminology, Nomenclature and Symbols) and beyond IUPAC (e.g., with BIPM, the Bureau International des Poids et Mesures, and IUPAP, the International Union of Pure and Applied Physics), noting the interdisciplinary nature between chemistry and physics. Meetings are arranged on a case-by-case basis when questions arise with textbook writers, journal editors, scientific societies, and researchers in various fields of science and engineering.

The Commission disseminates good practice by interactions with national societies, presentations at international meetings and publications on the World Wide Web. It also coordinates writing articles for educational purposes and good practice concerning physicochemical symbols, terminology, and units.

[List of specific current activities, website dates of meetings (perhaps with minutes) is to follow here and should be regularly updated.]

### 3. Website (concise minutes)

Upload concise minutes as they are.  
Roberto to send files to Fabienne.

### 4. Discussion on “absorption/adsorption/sorption”

A member of the public (Alve Kvåle, Norway) contacted the Gold Book editor Stuart Chalk about inconsistencies in the Gold Book entries on "absorption" and "adsorption".

Commission I.1 members reviewed the relevant, although outdated, Gold Book entries, more recent definitions in a 2020 PAC Recommendation and the Orange Book, as well as related definitions in the Green Book. It was noted that the Green Book refers to "adsorption" both as a process and a quantity to describe an increase in concentration. In the Japanese GB translation, adsorption is 'Kyutyaku' but in lay language this means “adhesion”, possibly creating confusion.

#### Action points:

Jim to set up a working group to clarify the definitions, with the aim of generating a new recommendation.

Jim to reply to Alve Kvåle about planned action. (Reply was sent on October 23.)

### 5. General matters

Yutaka: obituary for Kozo can be sent to CI in the name of I.1.

Jim: Request made for GB task group Chairs to be I.1 *ex officio*.

Next meeting December 3, 12:00 CET.