

## Project Place

### Enhanced recognition and encoding of stereoconfiguration by InChI tools

InChI tools are widely used as substance identifiers in various sources of chemical information. However, the current support of stereochemical information is limited to tetrahedral, double bond and short allene stereoisomerism. Among the unsupported stereo types are atropisomers and some special cases including centers with more than four ligands. An additional significant problem is an incomplete recognition of configurations for very common Haworth and chair representations of carbohydrates. The absence of support for MOLFile V3000 enhanced stereo used to represent relative and racemic configurations is another significant limitation. Updated procedures will allow InChI to support additional stereochemical cases and avoid mistakes in designation of stereoisomers.

For more information and comments, contact Task Group Chair Andrey <Yerin.anyerin@gmail.com>. • <https://iupac.org/project/2019-017-2-800>

### Nomenclature and associated terminology for inorganic nanoscale particles

Nanoscale particles are receiving increased attention worldwide, with numerous commercial and technological applications leading to significant societal impact. There is a steady increase of publications on such materials, and a growing interest in the application of these materials and their associated chemistries to new fields. Particles, in general, are an enormous contributor to international commerce, advanced technologies, science, and the chemical industry at large. Almost all

chemical and manufacturing processes include the use of, or creation of particles.

Currently there is not an established nomenclature system for describing particulate materials. Particles, much like polymers, can have similar chemical identities, but due to particle structure, size, and distribution of properties they can have distinct behaviors. The lack of proper naming conventions frequently leads to confusion regarding the type of particle being described or used in literature and in commerce. Particles are extensively exploited in the chemical and material science industries, and growing regulatory monitoring activities predicate a need for procedures for naming particulate materials in a meaningful and systematic manner. Notably, these materials lie in an area that is not explicitly covered by the nomenclature rules for inorganic or organic compounds. Hence, there is a need to develop IUPAC recommendations for the nomenclature and associated terminology for particles and populations of particles.

This project will begin the development a framework for the nomenclature of inorganic particles, building upon and refining existing principles derived from polymers, ongoing efforts on carbon nanotubes, ISO terminology, and opportunities with InChI, in addition to developing new frameworks for future materials. The intent is to develop conventions for the clear description of inorganic particles, their modifications (surface and bulk) and populations.

For more information and comments, contact Task Group Chair Edwin Constable <Edwin.Constable@unibas.ch> or Scott C Brown <Scott.C.Brown@Chemours.com>. • <https://iupac.org/project/2019-016-3-800>

# IUPAC Provisional Recommendations

Provisional Recommendations are preliminary drafts of IUPAC recommendations. These drafts encompass topics including terminology, nomenclature, and symbols. Following approval, the final recommendations are published in IUPAC's journal Pure and Applied Chemistry (PAC) or in IUPAC books. During the commentary period for Provisional Recommendations, interested parties are encouraged to suggest revisions to the recommendation's author.

**Definitions and notations relating to tactic polymers**  
Comments by 31 January 2020

**Glossary of Methods and Terms used in Analytical Spectroscopy**  
Comments by 29 February 2020

<https://iupac.org/recommendations/under-review-by-the-public/>

**Vocabulary of radioanalytical methods**  
Comments by 31 March 2020

**Glossary of Methods and Terms used in Surface Chemical Analysis**  
Comments by 30 April 2020