

Criteria for Election Candidates: 2026-2027

The purpose of this document is to help potential nominees understand how IUPAC, its Divisions and Standing Committees and the nomination process work. It also serves as a guideline to the specific expertise and other criteria that each Division or Committee requires for incoming members.

How IUPAC Works

A good way to become familiar with the way IUPAC works is to browse the website at iupac.org. IUPAC's focus is on the development of (digital) standards around nomenclature, molecular representation, terminology and symbols in chemistry and adjacent subject areas. While IUPAC does not fund or perform scientific research, interactions among IUPAC participants have led to many fruitful collaborations. We present more detailed outlines of IUPAC's scientific and educational work below.

How the Divisions and Standing Committees Work

Each Division and Standing Committee's page has a section on its Terms of Reference and its goals and objectives. [Projects](#) are the primary tool by which each Division and Committee (from now on collectively Committee) works toward these goals. While a Committee would always consider proposals in all areas related to the mission, it could also group projects around themes to focus and increase the work's impact.

How the Nomination Process Works

All members of the Committee serve two-year terms and can be re-elected subject to eligibility criteria as explained in IUPAC's [Statutes and Bylaws](#). There are three membership categories: Titular Members (TMs), Associate Members (AMs) and National Representatives (NRs). All members typically participate in the Division's work in the same ways. However, TMs receive financial support to attend Committee meetings and are expected to be active leaders in their group's work. Consequently, it is unusual for individuals without experience in IUPAC work to be elected to Titular Membership. It is more typical for new members to start as AMs or NRs to gain familiarity with IUPAC.

The IUPAC Secretariat coordinates the nomination process using an [online nomination form](#). We ask each nominee to provide a curriculum vitae (CV) that includes a statement on their intended contribution to IUPAC's work. Nominees for titular membership should provide information about past activities at IUPAC and/or other similar scientific organizations. Nominees for associate memberships and national representation should provide information about areas of interest and any past activity.

Physical and Biophysical Chemistry Division (Div I)

Submitted by Frances Separovic, email: fs@unimelb.edu.au 20.09.2024

Division I seeks candidates knowledgeable in one or more of the following areas of expertise:

- General physical chemistry
- Solubility, miscible and immiscible liquid solutions, solid solutions
- Electrochemistry, kinetics, thermodynamics, crystallography
- Surface chemistry and adsorption
- Chemistry of biological systems, biochemistry and biophysics
- Terminology, symbols, units and conventions in physical and biophysical chemistry
- Compilation and documentation of critically evaluated physical and biophysical chemical databases
- Translation of compilations from English into other languages

Read more about Div I at <https://iupac.org/body/100/>

Inorganic Chemistry Division (Div II)

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<https://iupac.org/body/200/>

Organic and Biomolecular Chemistry Division (Div III)

Submitted by Ari Koskinen, email: ari.koskinen@aalto.fi, 27.09.2024

The [Organic and Biomolecular Chemistry Division](#) (OBC) relies entirely on chemists who volunteer their time to collaboratively plan and carry out tasks related to the mission of IUPAC. In order to continue the Division's work we wish to bring new members into the Division Committee (composed of Titular Members (TMs), Associate Members (AMs) and National Observers (NRs)) each biennium. In evaluating candidates for membership, we seek to assemble a group of chemists with three characteristics:

- possessing a high level of expertise in one or more aspects of organic and/or biomolecular chemistry,
- reflecting the diversity of the world's organic/biomolecular chemistry community,
- and having the ability and willingness to work collaboratively in multinational groups to achieve shared goals.

The work of the Division is arranged in five subcommittees: a) Organic Synthesis, b) Biomolecular Chemistry, c) Photochemistry, d) Structural and Mechanistic Organic Chemistry, and e) Biotechnology.

Recent projects include:

2021-020-1-300 - Gold Book Update of Terms for Organic and Biomolecular Chemistry

2019-046-3-300 - Guidelines on developing robust biocatalysts for biorefinery

2017-037-2-300 - Bridging Ethnic Food Cultures through Chemistry

2016-023-2-300 - A critical review of reporting and storage of NMR data for spin-half nuclei in small molecules

2016-001-2-300 - Categorizing Chalcogen, Pnictogen, and Tetrel Bonds, and Other Interactions Involving Groups 14-16 Elements

Polymer Division (Div IV)

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Division IV seeks candidates with interest in one or more of the following areas:

- polymer synthesis;
- polymerization kinetics;
- polymer processing;
- development of polymer-related terminology;
- development of polymer-related nomenclature;
- green chemistry;
- polymer education;
- editing and maintaining websites (e.g. Wikipedia);
- establishing relationships with industry;
- cooperating with international organizations;
- facilitating scientific exchange.

Division IV is a highly collaborative division and it is expected that candidates will work closely with those within the Division and within the Subcommittees of the Division. More details about Division IV can be found at: <https://iupac.org/body/400>.

Analytical Chemistry Division (Div V)

Derek Craston, email: derekcraston@gmail.com , 26.09.2024

The Analytical Chemistry Division (ACD) relies entirely on chemists who volunteer their time to collaboratively plan and carry out tasks related to the mission of IUPAC. To continue the ACD's work we bring new members onto the Division Committee (composed of Titular Members (TMs), Associate Members (AMs) and National Observers (NRs)) each biennium. In evaluating candidates for membership, we seek to assemble a group of chemists with three characteristics:

- possessing a high level of expertise in one or more aspects of analytical chemistry,
- reflecting the diversity of the world's analytical chemistry community,
- and having the ability and willingness to work collaboratively in multinational groups to achieve shared goals.

How the ACD Works

The ACD Committee is responsible for delivering the [Divisional Strategy](#) and to review / approve project submissions and outputs. In the recent past, a group of projects has systematically reviewed and updated IUPAC-recommended definitions of terms in analytical chemistry, producing a series of publications in *Pure and Applied Chemistry* and a [monograph](#) containing more than 3000 definitions. Currently, work is underway to make these definitions available as a [web-based resource](#). Another example of a program resulting from many projects is the ACD's work in critical [evaluation of solubility data](#) which since the 1970's has produced more than 100 volumes evaluating experimental data in this field. Compilation and evaluation of solubility data is continuing and work is underway to make all of the work published as monographs and journal articles in a [digital format](#) accessible to both humans and machines.

The ACD is actively seeking individuals from within and outside of the Committee who will participate in current projects and develop additional projects and groups of projects that contribute to IUPAC's strategic goals in significant ways. Information about the Division's subcommittees and Projects can be found on the [ACD webpage](#).

Division V seeks candidates for the Committee with interest in one or more of the following areas:

1. Quality and standards
2. Laboratory and instrumental methods
3. Data handling and evaluation
4. Emerging methods and techniques
5. Commercial applications
6. Education
7. Dissemination and impact

Chemistry and the Environment Division (Div VI)

Annemieke Farenhorst, email: annemieke.farenhorst@umanitoba.ca

Through world-recognized expertise and experience via its members and project teams, [Division VI](#) makes scientifically sound and timely contributions towards addressing the critical environmental issues. We welcome candidates with knowledge and experience, especially in one or more of the following areas of expertise and seek their contributions to Divisional activities, mainly via advisory committees. (Currently Division VI has two advisory committees, namely (i) Chemical and Biophysical Processes in the Environment and (ii) Crop Protection Chemistry.)

- **Climate Change:**
- • Chemistry and climate change: monitoring, understanding, preventing, mitigating
- • Methods for reducing and removing greenhouse gases from the atmosphere
- **Environmental pollutants:**
- • New emerging pollutants and their impact on the environment, health and food safety
- • Chemical processes affecting the fate and behaviour of pollutants in the environment
- • Assessment of environmental fate and behaviour (*e.g.* transformation, degradation, transport, mobility) of chemicals in the environment
- • Sampling, analysis, monitoring and exposure assessment of chemicals in the environment
- **Risk assessment:**
- • Ecological risks assessment and management of chemicals in the environment
- • Life-cycle analysis for chemical products and their production processes in relation to complex environments
- **Environmental solutions:**
- • Development of environmentally sustainable processes, chemicals and practices
- • Novel and cost-effective technologies for environmental remediation
- • Technology transfer, capability building and community outreach for environmental solutions, especially in emerging economies
- **Chemical research to achieve the Sustainable Development Goals**
- **Environmental Regulation:**
- • Regulatory and policy frameworks regarding chemicals in the environment

We believe in inclusion and diversity principles and aim to have global representation with equal gender participation in the Divisional committee.

Division Titular Members and Associate Members are expected to attend all Division meetings and to participate fully in Division activities as appropriate, including reviews of Projects and Applications for IUPAC Endorsement.

Division National Representatives are expected to be conversant on all Division topics and to offer input as appropriate via e-mail correspondence and through participation in Division conference calls. Active participation to Division activities is also appreciated.

Chemistry and Human Health Division (Div VII)

Submitted by Vlad Gubala, email: vgubala@gmail.com, 17.09.2024

[Division VII](#) is looking for scientists willing to work on a voluntary basis on projects in one or more of the following disciplines:

Drug Development and Discovery (DDD)

Toxicology and Risk Assessment (TRA)

Nomenclature, Properties and Units in Laboratory Medicine (NPU-LM)

Nominees can be either academics or scientists working in the industry. An experience in chemical sciences with demonstrated impact on human health is particularly welcome. The division is looking to recruit new members with expertise from wide areas such as pharmaceutical and chemical sciences, materials science, toxicology and risk assessment, biochemistry and life science amongst others. We also welcome applications from scientists working for regulatory bodies, in law enforcement or other working environments where chemistry and human health may be strongly interlinked.

Those scientists who are nominated within Division VII are expected to submit projects according IUPAC rules. When their project is accepted, they are due to deliver within the time schedule they have promised. Division VII will only consider dynamic collaborations and has the authority to end non-performing projects. Project support can be used for meetings (cost of travel and accommodation of project members). Project money does not endorse research. Elected members of Division VII are also encouraged to take opportunities for collaboration with other IUPAC Committees into consideration.

Examples of ongoing projects are:

2024-008-2-700 - [Glossary of terms, quantities and units used in photodynamic medicine and related fields](#)

2023-036-1-700 - [Updating Chemical Hazard Information Profiles for United Nations Office of Disaster Risk Reduction](#)

2023-033-2-700 - [Medicinal Chemistry in Drug Discovery & Development, India](#)

2022-023-2-700 - [Evaluation of the recent dynamic of the medicinal chemistry projects funding in academy](#)

2021-022-1-700 - [NPU codes for characterizing subpopulations of the hematopoietic lineage, described from their Clusters of Differentiation \(CD\) markers](#)

2021-004-2-700 - [Gold Book Update of Terms for Chemistry and Human Health](#)

Chemical Nomenclature and Structure Representation Division (Div VIII)

Michelle Rogers, email: Michelle.M.Rogers@gmail.com

[Division VIII](#) would like candidates knowledgeable in one or more of the following areas of expertise:

- Development of conventional nomenclature for chemicals;
- Translation of nomenclature rules from English into other languages;
- Chemical identification as applied to databases,
- Computerized handling of chemical names and structures;
- Publishing chemical information;
- Regulatory schemes for chemicals and chemical information (e.g. patents, tariffs, etc.)

Committee on Chemistry Education (CCE)

Submitted by Marietjie Potgieter, Chair CCE, email: marietjie.potgieter@up.ac.za

25.09.2024

The [Committee on Chemistry Education](#) (CCE) is a unique forum for chemistry educators and chemistry education researchers to engage in discussions and international collaborations promoting both formal and informal chemistry education. The CCE disseminates evidence-based teaching practices and innovations for high-quality chemistry education through conferences and the journal, *Chemistry Teacher International*. The CCE also collaborates with other IUPAC divisions and committees to promote their educational interests by means of projects and activities throughout the world.

CCE is seeking candidates with expertise in one or more of the following areas:

- Chemistry teaching and learning, pedagogy and cognition;
- Formal chemistry education research;
- Effective use of technology in chemistry education;
- Curriculum and assessment reform;
- Laboratory training;
- Context, diversity and equity in chemistry education;
- Chemistry for sustainability;
- Chemistry teacher education, teacher knowledge and continuous professional development; and
- Informal chemistry education and outreach to promote public appreciation of chemistry, and an understanding of environmental, ethical, and social responsibility issues related to chemistry.

Elected titular members of CCE will be expected to be responsible for a profile area within the work of CCE and engage in initiating and overseeing activities in this area.

CHEMRAWN (Chemical Research Applied to World Needs)

Submitted by Fran Kerton, email: fkerton@mun.ca, 19.09.2024

Members of ChemRAWN work to identify world needs amenable to solution through chemistry with particular attention to those areas of global or multinational interest.

They serve as an international source of advice for the benefit of governments and international agencies with respect to chemistry and its application to world needs. The Committee promotes the gathering, discussion, advancement, and dissemination of chemical knowledge deemed useful for addressing sustainable development goals ([SDGs](#)).

We welcome candidates (academics, industrial scientists and other professionals) with knowledge and experience in communication, sustainable development, interdisciplinary research and entrepreneurship.

For the next biennium, we would like to see some candidates with expertise in the area of SDG-6 in particular, safe and affordable drinking water, and water quality, wastewater treatment and safe reuse. The committee is in the process of organizing a ChemRAWN conference centered on **water** quality and safe access.

We encourage younger chemists and those from under-represented groups to apply. Scientists who are nominated within ChemRAWN are expected to submit projects, contribute to IUPAC publications, organize in-person/hybrid/virtual meetings and collaborate with other IUPAC divisions and committees. We believe in inclusion and diversity principles and aim to have global representation with equal gender participation in the committee. ChemRAWN is a highly collaborative and interdisciplinary committee, and so candidates will work closely with those within the committee and other committees and divisions of IUPAC. More details about Committee can be found at: <https://iupac.org/body/021>

Committee on Chemistry and Industry (COCI)

Submitted by Anna Makarova, email: annmakarova197@gmail.com, 29.09.2024

The IUPAC Committee on Chemistry and Industry (COCI) is the focus within IUPAC for issues of importance to the global chemical industry. COCI is developing new programs and projects on emerging topics. It is also a conduit for communications between IUPAC and National Adhering Organizations (NAOs), Company Associates (CAs), and individual scientists. More details about Committee can be found at: <https://iupac.org/body/022>.

COCI Plans and priorities

- Provide scientific expertise to address critical world needs
- Brand IUPAC in the minds of stakeholders. COCI will engage with IYCN Network to explore how the IYCN members can contribute to COCI. COCI work together with UN Environment in the 'Youth Engagement Strategy'. COCI work together with UN Environment on the guidelines in the field Green and Sustainable chemistry
- Chemistry Entrepreneurship is a new COCI topic.

COCI is seeking candidates with expertise in one or more of the following areas:

- Work in industrial companies
- Implementation of scientific developments into industry
- Interaction with industrial associations and unions
- Interaction with industry and organization of projects by representatives of industry

Committee on Publications and Cheminformatics Data Standards (CPCDS)

Leah McEwen, email: lrm1@cornell.edu

As with the last election cycle, it is very important to continue to engage expertise in many developing areas around scholarly communication, open science and digital transformation. Below are the areas of expertise that [CPCDS](#) identified for nominees in the last round and these are still highly desirable.

CPCDS desired expertise :

- scientific/chemistry publishing, including journals, books, databases, magazines;
- digital transformation, open access;
- chemistry data software development, including open source development, web-based services;
- cheminformatics, data driven research/chemistry (emphasis as an emerging need in IUPAC);
- chemistry data management, including industry, large data centers;
- diversity in sector, nationality, gender;
- similar skills in neighboring disciplines (e.g., bioinformatics)

Interdivisional Committee on Green Chemistry for Sustainable Development (ICGCSD)

Buxing Han, email: hanbx@iccas.ac.cn

[ICGCSD](#) initiates, promotes, and coordinates the work of the Union in the area of green and sustainable chemistry and sustainable development. The Committee consists mainly of Chair, Secretary, Titular members, Associate members, Division representatives, and National representatives.

The Committee seeks candidates of the members for the Committee working in the areas related with green and sustainable chemistry, including mainly the following (but not limit to) areas:

1. Green synthesis
2. Green catalysis
3. Green solvents
4. CO₂ utilization
5. Biomass utilization
6. Utilization of waste resources
7. Green energy
8. Green chemical engineering and technology
9. Green chemistry education