

Membership of IAPWS

Countries are members of IAPWS. Membership is held, on behalf of member countries, by National Committees.

There are two classes of membership: member and associate member. Members pay yearly dues, are entitled to vote on all matters coming before the Executive Committee, and receive all publications and services of IAPWS. Associate members do not pay dues and are not entitled to vote on matters before the Executive Committee. They do receive all publications and services of IAPWS.

Members, acting through their National Committees, are responsible for developing national positions on questions before IAPWS, for evaluating formulations proposed by IAPWS for international acceptance, for participating through national delegates and selected experts in the meeting and activities of IAPWS, and for payment of annual dues.

The National Committees attract and encourage experts to participate in the activities of IAPWS, bring the results of relevant research on water, steam, aqueous systems and power plant chemistry within the country to the attention of IAPWS, and promote and encourage research on water, steam and aqueous systems within the country.

Associate members are elected on application by the Executive Committee for a period of three years. This period can be renewed once. Associate membership is intended to lead to full membership. It allows a period of time for the establishment of a National Committee, and for the evaluation of the benefits of national membership.

Application forms for membership or associate membership are available from the Executive Secretary.

Dues

Dues are payable yearly in Swiss francs and are assessed according to the gross national products (GNP) of the country, with a minimum of 1600 Swiss francs a year. The dues of current full members are

Argentina/Brazil	1600
Canada	1600
Czech Republic	1600
Germany	4000
Greece	1600
France	3200
Japan	4000
Russia	1600
Britain/Ireland	3200
U.S.A.	8000
Denmark	1600
Italy	3200

For a country to assess its dues, it should compare its gross national product with that of the member countries, and pay the same dues, as do countries with similar GNP. If the GNP falls below that of member countries, the minimum amount of 1600 Swiss francs applies.

Associate members do not pay dues.

Use of funds

The funds of IAPWS are used to support the office of the Executive Secretary, to meet expenses directly incurred by IAPWS as operating costs, for assisting in the organization of the periodic conferences, and for technical activities directly supported by IAPWS. These funds are not used to reimburse members of the Executive Committee or the Working Groups for travel or other cost incurred in connection with IAPWS activities.

Information

Further information can be obtained from the Executive Secretary. Write to

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What is IAPWS?

IAPWS is an international non-profit association of national organizations concerned with the properties of water and steam, particularly thermophysical properties and other aspects of high temperature steam, water and aqueous mixtures that are relevant to thermal power cycles and other industrial applications. IAPWS objectives are

- To provide internationally accepted formulations for the properties of light and heavy steam, water and selected aqueous solutions for scientific and industrial applications
- To define research needs and promote and coordinate research on steam, water and selected aqueous systems important in thermal power cycles
- To collect and evaluate the resulting data, and to communicate and promulgate the findings
- To provide an international forum for exchange of experiences, ideas and results of research on high temperature aqueous media

Which are the member countries?

Full Members are:

Argentina and Brazil	Britain and Ireland	Canada
Czech Republic	Denmark	France
Germany	Greece	Italy
Japan	Russia	U.S.A.

History

IAPWS originated de facto in 1929, when the first of the periodic International Steam Tables Conferences was held in London, UK, driven by the need for international agreement on the properties of steam when performance specifications are set for the steam turbines used in the power industry. The International Association for the Properties of Steam was officially established in 1971. The Association has broadened its scope substantially in the past twenty years, and presently is concerned not only with accurate formulation of steam tables, but also with other physical and chemical properties of light and heavy water, steam and selected aqueous systems.

What does IAPWS do?

IAPWS organizes a yearly Executive and Working Groups meeting in one of the member countries, on a rotating basis.

IAPWS sponsors and manages the International Conferences on the Properties of Water and Steam, that rotate among the member countries and are held periodically, every five years.

IAPWS establishes, maintains, and oversees Working Groups and Committees that perform the specialized tasks that are part of IAPWS's objectives.

IAPWS approves and disseminates, as a set of international standards, in the form of Releases and Guidelines, improved representations of the properties of water, steam and aqueous systems that have been developed, or selected, and tested by members of the Working Groups. It produces Needs Documents that call for research on specific topics relevant to the power industry, according to the judgment of members of the Working Groups. The IAPWS Secretariat maintains and updates the Releases, Guidelines and Needs Documents produced by the organization. They are also available on the IAPWS Website (www.iapws.org).

How is IAPWS structured?

IAPWS is managed by the *Executive Committee* composed of delegates from each of the member countries. These delegates are designated by the national organizations that are associated with IAPWS. The Working Groups and Committees are managed by the Executive Committee and report to it.

The Executive Committee is chaired by the President, who serves a two year term. The Presidency is rotated among the member countries.

The day-to-day affairs of IAPWS are managed by the Executive Secretary, who announces the agendas for the meetings, prepares and circulates the minutes, and directs the flow of documents from their preparation in the working groups to their promulgation as IAPWS Releases, Guidelines and Needs Documents. The Secretariat is also the repository for these IAPWS documents, and the Executive Secretary serves as the focal point for the information about IAPWS activities and output.

The Working Groups and Committees are staffed by technical experts who are selected with the assistance of the national organizations for their competence in the areas covered by the Working Groups. Currently four Working Groups exist.

- (1) The *Working Group on Thermophysical Properties of Water and Steam* is concerned with the accurate representation of the thermodynamic, transport, and other properties (such as dielectric constant, refractive index, surface tension, and ion product) of ordinary and heavy water and steam for general and scientific use.
- (2) The *Working Group on Physical Chemistry of Aqueous Solutions* is concerned with the physical chemistry of aqueous solutions at high temperatures and pressures. It formulates thermodynamic and transport properties in selected systems for which sufficient data are available.

- (3) The *Working Group on Power Plant Chemistry* provides the link between the Working Group on Physical Chemistry and the power industry. It is concerned with the water and steam chemistry in power plants due to the interactions of steam with exposed metallic surfaces, and with the behavior of additives. This working group acts as a forum for the discussion of common problems, defines the areas where information is needed, and stimulates the required research.
- (4) The *Working Group on Industrial Requirements and Solutions* provides the link between the Working Group on Properties and the needs of the power industry. It maintains and improves the industrial formulation that is used in the design of power plant components and systems; this formulation is usually contractually and sometimes legally required in performance testing and specification of such components and systems.

Benefits of IAPWS membership

(1) *Information.* Membership in IAPWS provides access to information on research in steam, water and power-cycle chemistry throughout the world. Through the activities of the Executive Committee and the Working Groups, data on technically important properties are continuously re-examined, measurement needs are identified, and new theoretical developments are applied. The members of the Working Groups, in turn, inform their national committees and the scientists and engineers in their home countries on these new developments, thus minimizing duplication and maximizing effectiveness of their efforts.

(2) *Participation.* Membership in IAPWS provides the member country a voice in an influential forum on power chemistry, an opportunity to participate in the preparation of data representations, and a vote in the acceptance of these. These representations will be used worldwide not only in the design, specification, operation and analysis of steam operated power plants, but also in numerous other scientific, engineering and geological applications where the properties of high temperature aqueous systems are required.

(3) *Recognition.* Membership in IAPWS enhances the status and visibility of scientists, engineers and industries in the member countries. By engaging in IAPWS-related activities, the capabilities and achievements of these scientists and engineers will receive international recognition. Senior members of IAPWS that have distinguished themselves by extraordinary service to the organization can be elected to the status of Honorary Fellow.