



## General Conference

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# 39 C

United Nations  
Educational, Scientific and  
Cultural Organization

Organisation  
des Nations Unies  
pour l'éducation,  
la science et la culture

Organización  
de las Naciones Unidas  
para la Educación,  
la Ciencia y la Cultura

Организация  
Объединенных Наций по  
вопросам образования,  
науки и культуры

منظمة الأمم المتحدة  
للتربية والعلم والثقافة

联合国教育、  
科学及文化组织

Item 4.19 of the agenda

39 C/60

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### PROCLAMATION OF 2019 AS THE UNITED NATIONS INTERNATIONAL YEAR OF THE PERIODIC TABLE OF CHEMICAL ELEMENTS

#### OUTLINE

**Source:** 202 EX/Decision 43.

**Background:** At the request of Member States, an item on the proclamation of 2019 as the International Year of the Periodic Table of Chemical Elements was included in the agenda of the 202nd session of the Executive Board (202 EX/43). By 202 EX/Decision 43, the Executive Board invited the Director-General to support all efforts leading the United Nations General Assembly to proclaim 2019 as the International Year of the Periodic Table of Chemical Elements, and recommended that the General Conference adopt, at its 39th session, a resolution concerning this subject.

**Purpose:** This document provides an explanatory note regarding the proposal to proclaim 2019 as the International Year of the Periodic Table of Chemical Elements. Detailed information including the rationale and objectives of the Year is provided in document 202 EX/43.

**Decision required:** Paragraph 5.



Job: 201702307

## Explanatory Note

1. An International Year of the Periodic Table of Chemical Elements (IYPTCE) in 2019 will be a recognition of the important role of the basic sciences, and especially chemistry and physics, as fundamental in providing solutions to many of the development challenges that Member States face as they implement the United Nations 2030 Agenda for Sustainable Development. The Year also will be an occasion to pay tribute to the recent discovery and naming of four super-heavy elements of the Periodic Table of Chemical Elements with atomic numbers 113 (Nihonium), 115 (Moscovium), 117 (Tennessine) and 118 (Oganesson) resulting from close international scientific cooperation.
2. An International Year of the Periodic Table of Chemical Elements in 2019 will celebrate the 150th anniversary of the establishment of the Periodic Table of Chemical Elements by the Russian scientist Dmitri I. Mendeleev, who is regarded as one of the fathers of modern chemistry. The defining 1869 breakthrough of Mendeleev was the prediction of properties of five elements and their compounds. He also left space in the periodic table for elements to be discovered in the future.
3. An International Year of the Periodic Table of Chemical Elements in 2019 will offer to UNESCO's International Basic Sciences Programme an important opportunity to fulfil its mission of promoting international cooperation in the basic sciences for sustainable development, as well as in science education and capacity-building, namely through a Microscience Programme dedicated to the periodic table of chemical elements. This International Year will also trigger a wide range of cooperative undertakings within the context of the follow-up of the 2011 International Year of Chemistry and the 2014 International Year of Crystallography.
4. The participation of UNESCO in the celebration of the International Year of the Periodic Table of Chemical Elements in 2019 will be financed mainly from extrabudgetary funding.
5. In the light of the above, the General Conference may wish to adopt a decision along the following lines:

*The General Conference,*

*Having examined document 39C/60,*

*Recognizing* the importance of chemistry and the advances in research and discoveries on the periodic table of chemical elements for sustainable development and for the benefit of humankind,

Stressing that the periodic table is widely used in vital spheres of scientific knowledge such as chemistry, physics, and biology,

Considering that the celebration of the 150th anniversary of the Periodic Table of Chemical Elements in 2019 will provide an unparalleled opportunity to highlight the continuous nature of scientific discovery in different contexts, with particular emphasis on promoting science education at all levels among young women and men, especially in developing countries, including in Africa,

1. *Noting* that the year 2019 coincides with the anniversaries of a series of important milestones in the history of the periodic table, specifically with the isolation of arsenic and antimony by Jabir ibn Hayyan circa 1,200 years ago; the discovery of phosphorus 350 years ago; the publication of a list of 33 chemical elements grouped into gases, metals, non-metals, and earths by Lavoisier in 1789; the discovery of the Law of Triads in 1829 by Döbereiner; the establishment of the periodic table by Mendeleev 150 years ago; and the discovery of francium by Marguerite Perey in 1939;

2. *Being aware* that the year 2019 provides the opportunity to observe the outstanding scientific achievements that humankind has made since the discovery of the periodic system by Dmitry I. Mendeleev in 1869;
3. *Welcomes* 202 EX/Decision 43;
4. *Invites* the Director-General to support all efforts leading to the proclamation of 2019 as the International Year of the Periodic Table of Chemical Elements;
5. *Recommends* that the United Nations General Assembly, at its 72nd session, adopt a resolution declaring 2019 as the United Nations International Year of the Periodic Table of Chemical Elements.