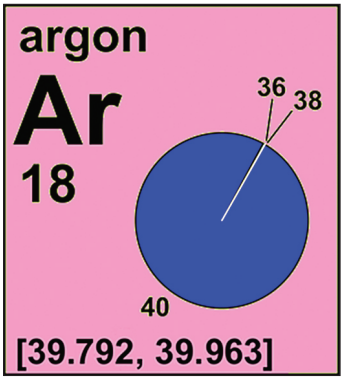
the density of intrinsic defects in transition metal oxynitrides ($BaTaO_2N$, $BaNbO_2N$, $LaTiO_2N$, etc.), which led to the substantial enhancement in solar water splitting activity. He discovered new Dion-Jacobson phase $CsBa_2Ta_3O_{10}$ and fabricated for the first time two-dimensional oxynitride nanostructures with high crystallinity, less defect density, and high photocatalytic activity of $CsBa_2Ta_3O_{10}$, $KLaTiO_4$, and $K_2La_2Ti_3O_{10}$. His work revealed new insights into why creating a p-n heterojunction using bismuth oxyhalides (BiOCl, BiOI) and doping are important for bandgap engineering and enhancing the photocatalytic activity of less active photocatalysts. He recently described the relationship between solar water splitting activity and a degree of octahedral tilting in perovskite oxynitrides.

The CHEMRAWN VII Prize was first announced in August 2008 and has since been awarded every two years at the IUPAC International Conference on Green Chemistry. The Prize of USD 5000 is granted to a young investigator (less than 45 years of age) from an emerging region who is actively contributing to research in Green Chemistry. The 2018 CHEMRAWN VII Prize was presented to Dr Hojamberdiev at the 8th IUPAC Conference on Green Chemistry held 9-14 September 2018, in Bangkok, Thailand.

The IUPAC CHEMRAWNVII prize has previously been awarded to Noureddine Yassaa (Algeria) in 2010, Rashimi Sanghi (India) in 2012, Vania G. Zuin (Brazil) in 2014, and Ali Maleki (Iran) in 2016.

Standard Atomic Weights of 14 Chemical Elements Revised

The IUPAC Commission on Isotopic Abundances and Atomic Weights (CIAAW) met under the chairmanship of Dr. Juris Meija, at the University of Groningen, the Netherlands, in September 2017. Following its meeting, the Commission recommended changes to the standard atomic weights of 14 chemical elements.



The standard atomic weights of argon and iridium have been changed based on recent determinations and evaluations of terrestrial isotopic abundances. For argon, assignment of an interval for the new standard atomic weight reflects the common occurrence of variations in the atomic weights of the element in normal terrestrial materials. The standard atomic weights of the other 12 elements, all having a single stable isotope, have been revised based on the new assessment of their atomic masses endorsed by the International Union of Pure and Applied Physics.

- aluminium (aluminum): from 26.981 5385(7) to 26.981 5384(3)
- argon: from 39.948(1) to [39.792, 39.963]
- cobalt: from 58.933 194(4) to 58.933 194(3)
- gold: from 196.966 569(5) to 196.966 570(4)
- holmium: from 164.930 33(2) to 164.930 328(7)
- iridium: from 192.217(3) to 192.217(2)
- manganese: from 54.938 044(3) to 54.938 043(2)
- niobium: from 92.906 37(2) to 92.906 37(1)
- praseodymium: from 140.907 66(2) to 140.907 66(1)
- protactinium: from 231.035 88(2) to 231.035 88(1)
- rhodium: from 102.905 50(2) to 102.905 49(2)
- terbium: from 158.925 35(2) to 158.925 354(8)
- thulium: from 168.934 22(2) to 168.934 218(6)
- yttrium: from 88.905 84(2) to 88.905 84(1)

The reported uncertainties of the standard atomic weights are such that the atomic-weight values of normal materials are expected to lie in the given interval with great certitude. There are three broad groups of elements depending on what is the main cause of the uncertainty of their standard atomic weights: (1) well-documented natural variations of isotopic abundances, (2) our ability to determine the isotopic abundances, and (3) our ability to precisely determine the atomic masses of the isotopes. Elements in the first category are distinguished by an interval standard atomic weight. For instance, the standard atomic weight of argon, [39.792, 39.963], indicates that atomic-weight values of argon in normal materials are expected to be from 39.792 to 39.963. For iridium, which falls into second category, the standard atomic weight of iridium, 192.217(2), indicates that atomic-weight values of iridium in normal materials are expected to be from 192.215 to 192.219. For all other elements above the uncertainty of the standard atomic weight is the result of the measurement precision of their atomic mass. As an example, the standard atomic weight of holmium, 164.930 328(7), indicates that the best measurements result in a value from 164.930 321 to 164.930 335.

The CIAAW also notes that the international isotopic reference material LSVEC lithium carbonate which (together with NBS 19) is used to realize the carbon isotope delta scale (VPDB), is able to absorb carbon dioxide from air. This process changes the carbon isotope ratio in LSVEC with time. Given that LSVEC is unsuitable as a reference material for carbon isotope ratio analysis, its use is no longer recommended. Carbon isotope delta measurements must still be normalized to the VPDB scale using at least two suitable international reference materials selected by the users as appropriate.

These changes and considerations will be published in *Pure and Applied Chemistry* and further details can be found online at the website of the IUPAC Commission on Isotopic Abundances and Atomic Weights (www.ciaaw.org).

https://iupac.org/standard-atomic-weights-of-14-chemical-elements-revised/

2019 IUPAC-Solvay International Award for Young Chemists—call for applicants

The 2019 IUPAC-SOLVAY International Award for Young Chemists is intended to encourage outstanding young research scientists at the beginning of their careers. The awards are given for the most outstanding Ph.D. theses in the general area of the chemical sciences, as described in a 1000-word essay. The award is generously sponsored by Solvay.

IUPAC will award up to five prizes in 2019. Each prize will consist of USD 1000 cash and travel expenses to the 2019 IUPAC Congress in Paris (July 2019; see www.iupac2019.org). In keeping with IUPAC's status as a global organization, efforts will be made to assure fair geographic distribution of prizes.

The awards will be presented at the 2019 IUPAC Congress. Each awardee will be invited to present a poster on his/her research and to participate in a plenary award session, and is expected to submit a review article for publication in *Pure and Applied Chemistry.*

For criteria, procedure and application form, see https://iupac.org/2019-iupac-solvay-international-award-for-young-chemists/

Periodic Table of Younger Chemists Revealed

In celebration of IUPAC 100th anniversary of IUPAC and of the 2019 International Year of the Periodic Table, IUPAC and International Younger Chemists Network (IYCN) are creating a Periodic Table of Younger Chemists. Beginning in July 2018 and ending in July 2019, a diverse group of 118 outstanding younger chemists from around the world will be honored. The resulting periodic table will highlight the diversity of careers, creativity, and dedication of the young chemists leading this community into the next century. Each 'Young Chemist Element' is profiled on the IUPAC100 website.

Elements are revealed over time in order of scientific discovery. They will be announced monthly at various chemistry events, many being IUPAC endorsed conferences. Approximately eight elements will be revealed each month beginning in July 2018 with the final elements being revealed at the IUPAC World Chemistry Congress in Paris, France in July 2019.

The first 16 elements are:

revealed 1 July 2018 at MACRO18 in Cairns, Australia

- Cu, **Kelly L. Summers,** Ph.D. Candidate, University of Saskatchewan, Canada
- Pb, **Torsten John**, Ph.D. Candidate, Leipzig University, Germany
- Au, **Julian G. West,** Postdoctoral Fellow, California Institute of Technology, United States, and
- Ag, **Matthew G. Cowan,** Lecturer and Researcher, University of Canterbury, New Zealand

revealed 10 July 2018 at the 25th International Conference on Chemistry Education (ICCE) in Sydney, Australia

- Fe, **Elizabeth New**, Associate Professor, University of Sydney, Australia
- C, **Jose Miguel González- Domínguez,** Research Chemist, Spanish National Research Council, Spain
- Sn, **Emmanuel Chukwudalu Ohaekenyem,** Lecturer, Nnamdi Azikiwe University, Nigeria, and
- S, **Xuefeng Jiang,** Professor, East China Normal University, China

revealed 4 Aug 2018 at the 43rd International Conference on Coordination Chemistry (ICCC) in Sendai, Japan

- Hg, **Zhuang Liu,** Professor, Soochow University, China