## References

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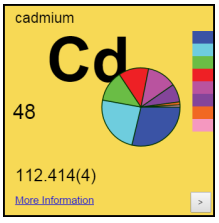
## Isotopes Matter




How do we know what the temperature of our planet was a million years ago, in order to better understand climate change? Where did Őtzi the Iceman live as a child and an adult? What evidence gives doping agencies the gold standard to determine whether testosterone in an athlete's sample comes from doping? How do we obtain 3D images of tumors in soft tissues?

The answers to all of these questions and many more can be revealed through a deeper understanding of isotopes of the elements.

**Isotopesmatter.com** is a collection of new resources created for educators and students at secondary and post-secondary levels and to inform the public about the many uses of isotopes in our lives. They are based on educational practices that encourage engaged and active learning by students.

The interactive electronic periodic table and accompanying educational materials were created by a partnership between an IUPAC Project team of scientists and educators, and researchers at the King's Centre for Visualization in Science. They build on the work of a previous IUPAC project that produced a print version of the Periodic Table of the Isotopes.

"This project responds to requests by educators and students for resources that highlight the importance of isotopes in our lives and that give students help in using interval atomic weights for elements. The site www.ISOTOPESMATTER.com brings free, engaging, and interactive learning resources to the fingertips of students and educators around the world," says Task Group Co-Chair Peter Mahaffy, Professor of Chemistry at the King's University in Canada and co-director of the King's Centre for Visualization in Science.

Norman Holden, retired Research Coordinator of the High Flux Beam Reactor (HFBR) and the Brookhaven Medical Research Reactor (BMMR) and a Guest Scientist at the National Nuclear Data Center (NNDC) of Brookhaven National Laboratory in New York, adds: "It's great when scientists and educators work together to create a vehicle to provide students with an understanding of fundamental scientific facts and accomplish this internationally. "

Further details will be published in the peer-reviewed IUPAC Journal, *Pure and Applied Chemistry*.

**For more information and comments, contact Task Group Chair Peter Mahaffy <peter.mahaffy@kingsu.ca> or Norman Holden <holden@bnl.gov>.**
**www.iupac.org/project/2014-024-1-200, or**
**www.iupac.org/isotopesmatter**

## Materials on the Nanoscale—Uniform Description System Version 2.0

A complete revised version of the Uniform Description System for Materials on the Nanoscale (UDS) is now available for download. Version 2.0 of the UDS is the result of two years of work and meetings by the CODATA-VAMAS Working Group on Nanomaterials that extensively updated and extended Version 1.0 (see *CI* July 2015, p.3 for a short description: http://dx.doi.org/10.1515/ci-2015-0402).

The UDS 2.0 contains 19 tables of detailed descriptors and their definitions that are directly applicable for reporting nanomaterials research results, identifying nanomaterials in regulations and standards, developing formats for nanoinformatics resources, specifying nanomaterials in commercial transactions, and other uses.

Comments and suggestions are welcome and can be sent to nanomaterials@codata.org

**http://dx.doi.org/10.5281/zenodo.56720**