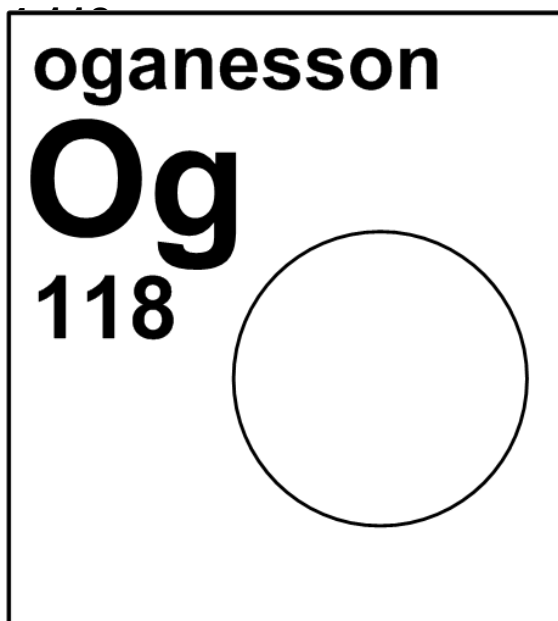


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Stable isotope	Relative atomic mass	Mole fraction
(none)		



Half-life of radioactive isotope

Less than 1 hour

Oganesson does not occur naturally in the Earth's crust. The name oganesson and symbol, Og, are accepted the accepted ones for element 118. The name is in line with the tradition of honoring a scientist and recognizes Prof. Yuri Oganessian (Figure 4.118.1; born 1933) for his pioneering contribution to trans-actinoid element research. His many achievements include the discovery of super-heavy elements and significant advances in the nuclear physics of super-heavy nuclei including experimental evidence for the "island of stability."

In 2005, experiments were performed in Dubna's U-400 **cyclotron**, where ⁴⁸Ca bombarded a spinning target of ²⁴⁹Cf at nearly 3×10^4 km/s to produce oganesson. With the success of creating oganesson, scientists from Livermore and Joint Institute for Nuclear Research (JINR) are starting experiments to create element 120 by bombarding a ²⁴⁴Pu target with a beam of ⁵⁸Fe [677-680]. Oganesson has no known isotopic applications aside from scientific research.

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Fig. 4.118.1: Prof. Yuri Oganessian after whom element 118 was named. (Image Source: Texas A&M University Institute for Advanced Study) [681].