

Japan team to name element 113 in Asian first (Update)

December 31 2015



Kosuke Morita led a team of scientists that has been awarded the right to name a synthetic element they created, which will become element 113 on the periodic table

A Japanese research team has been granted the right to name new element 113, the first on the periodic table to be named by Asian scientists, the team's institute said Thursday.

Japan's Riken Institute said a team led by Kosuke Morita was awarded

the rights from global scientific bodies—the International Union of Pure and Applied Chemistry (IUPAC) and the International Union of Pure and Applied Physics (IUPAP)—after successfully creating the new synthetic element three times from 2004 to 2012.

It is the first element on the periodic table to be discovered and named by Asian scientists, Riken said.

Synthetic elements do not occur naturally on Earth and are produced artificially through experiments.

"IUPAC has announced that Morita's group will be given priority for the discovery of the new element, a privilege that includes the right to propose a name for it," Riken said in a statement.

Morita, a professor at Japan's Kyushu University, was informed via a letter from IUPAC on Thursday, Riken said.

A release on IUPAC's website confirmed the accomplishment.

"Several studies published from 2004 to 2012 have been construed as sufficient to ratify the discovery and priority," it said.

The name has yet to be decided, but Riken said that Morita will propose one in 2016.

"I feel grateful that the name will be included in the table for the first time after this recognition," Morita said at a press conference.

The naming right topped the evening news bulletin on public broadcaster NHK television.

Japan has a proud research tradition and its citizens have won about 20

Nobel prizes in science and medicine, including two in 2015.



Kosuke Morita led a research team in Japan that came up with a new synthetic element and has become the first Asian scientist given the right to name an element on the periodic table

The naming right is good news for Riken, which last year was embroiled in scandal after it had to withdraw what was once billed as a scientific breakthrough in stem cell reproduction by a young researcher.

IUPAC also said that Russian and US scientists working together had won the naming rights for three other elements—115, 117 and 118.

More information: Papers reporting on the results of the experiments from RIKEN:

Experiment on the Synthesis of Element 113 in the Reaction
 $^{209}\text{Bi}(^{70}\text{Zn},n)^{278113}$

Journal of the Physical Society of Japan, Vol. 73, No. 10, October, 2004,
pp. 2593–2596

DOI: 10.1143/JPSJ.73.2593

Observation of Second Decay Chain from 278113

Journal of the Physical Society of Japan Vol. 76, No. 4, April, 2007,
045001

DOI: 10.1143/JPSJ.76.045001

Decay Properties of ^{266}Bh and ^{262}Db Produced in the $^{248}\text{Cm} + ^{23}\text{Na}$
Reaction

Journal of the Physical Society of Japan, Vol. 78, No. 6, June, 2009,
064201

DOI: 10.1143/JPSJ.78.064201

New Result in the Production and Decay of an Isotope, 278113 , of the
113th Element

Journal of the Physical Society of Japan 81 (2012) 103201

DOI: [dx.doi.org/10.1143/JPSJ.81.103201](https://doi.org/10.1143/JPSJ.81.103201)

The report will be published based on the work published in those
papers:

Paul J. Karol, Robert C. Barber, Bradley M. Sherrill, Emanuele Vardaci,
and Toshimitsu Yamazaki, "Discovery of the elements with atomic
numbers $Z = 113, 115$ and 117 (TBA)", To appear in Pure and Applied
Chemistry, early 2016 issue.

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