

Japanese research institute earns right to name element 113

By Elaine Kurtenbach
The Associated Press

TOKYO — A team of Japanese scientists has met the criteria for naming a new element, the synthetic highly radioactive element 113, more than a dozen years after they began working to create it.

Kosuke Morita, who led the research at the government-affiliated Riken Nishina Center for Accelerator-Based Science, was notified of the decision by the U.S.-based International Union of Pure and Applied Chemistry (IUPAC).

“Now that we have conclusively demonstrated the existence of element 113, we plan to look to the uncharted territory of element 119 and beyond,” Morita said in a statement.

A joint working group of the IUPAC and International Union of Pure and Applied Physics also announced decisions on recognition of discoveries of elements 115, 117, and 118.

Discoveries of atomic elements have often involved competition between scientists. The news is a morale booster for Riken, which has undergone a reorganization of some of its research following a scandal over stem-cell research.

“To scientists, this is of greater value



ELEMENTAL RIGHTS. Kosuke Morita of the Riken Nishina Center for Accelerator-Based Science points at the periodic table of the elements during a press conference in Wako, Saitama prefecture, near Tokyo. A team of Japanese scientists has met the criteria for naming a new element, the synthetic highly radioactive element 113, more than a dozen years after they began working to create it. Morita was notified of the decision by the U.S.-based International Union of Pure and Applied Chemistry. (Kyodo News via AP)

and flerovium on the periodic table. A joint team of scientists in Russia and the Lawrence Livermore National Laboratory in the U.S. also were vying for naming rights for 113 after announcing its discovery in 2004.

Morita and his group used Riken’s linear accelerator and ion separator to search for new synthetic superheavy elements, beginning in the late 1980s. In 2003, his team began working to create element 113 by bombarding a thin layer of bismuth with zinc ions travelling at about 10 percent the speed of light, Riken said.

Isotopes of element 113 have a very short half-life, lasting for less than a thousandth of a second, making its discovery very difficult. After twice succeeding to create it, the group tried for seven years before achieving further success, in August 2012.

than an Olympic gold medal,” Ryoji Noyori, former Riken president and Nobel laureate in chemistry, told reporters.

Riken had earlier said japonium might be proposed as a name for element 113, which provisionally had been named ununtrium.

However, Morita has no specific candidates under consideration. He said he planned to spend part of this year considering a name for the element.

The IUPAC group gave collaborating teams from the Joint Institute for Nuclear Research in Dubna, Russia; Lawrence Livermore National Laboratory in California; and the Oak Ridge National Laboratory in Oak Ridge, Tennessee the right to name elements 115 and 117. Separately, scientists from the Dubna laboratory and Lawrence Livermore were invited to name element 118.

Element 113 sits between copernicium



NETTING A NEW LOCATION. A man walks on a bridge by a construction site in Toyosu, in Tokyo, where a new market will open in 2016. In November, the 80-year-old Tsukiji market, the world’s biggest and most famous fish and seafood market, is due to move to the massive new complex further south in Tokyo Bay. (AP Photo/Elaine Kurtenbach)

80-year-old Tokyo fish market holds final New Year auction

Continued from page 2

management has gradually limited access for safety’s sake.

Planning for the move began nearly 20 years ago, but the shift was delayed for years due to toxins found in the soil at the new location, the former site of a coal gasification plant run by Tokyo Gas.

The city announced in 2001 that the market would be moved by 2012. But cleanup work dragged on, and in 2013, Tokyo Gas disclosed it had found more

toxins at the site.

Critics of the move said city authorities were swapping worries over cramped and some say unhygienic conditions in Tsukiji for a new set of health problems: unsafe levels of lead, arsenic, hexavalent chromium, and other toxins.

Cleanup of the tainted site required the removal and replacement of six feet of topsoil, construction of retaining walls, pumping out of polluted ground water, and an injection of fresh water.

THE 20TH ANNUAL JAPANESE NEW YEAR CELEBRATION

USHER IN THE YEAR OF THE MONKEY WITH

MOCHITSUKI

SUNDAY • JANUARY 31 • 11 AM – 4 PM

Enjoy taiko drumming, mochi-pounding, and delicious Japanese food! Fun for the whole family!

ADVANCED TICKETS: \$4-\$10
Buy online with no service fees at www.boxofficetickets.com

TICKETS AT THE DOOR: \$5-\$12
Free for children under 3!

PORTLAND STATE UNIVERSITY
Smith Memorial Student Union (SMSU)
1825 SW Broadway • Portland, OR 97201

For more information, visit www.mochipdx.org

Lunar New Year Sale

(Lunar New Year is February 8, 2016)
January 27 - February 9, 2016

Year of the Monkey

1920 • 1932 • 1944 • 1956 • 1968 • 1980 • 1992 • 2004 • 2016

Those born in the Year of the Monkey are fun-loving people who are always cheerful, creative, and generous. They are usually the center of attention, captivating with their wit and charm. They are loyal and devoted, but can be emotional and self-centered at times.

UWAJIMAYA
A Tradition of Good Taste Since 1928

Get Your FREE Lucky Red Envelope!
Spend \$30 or more and receive a Lucky Red Envelope with a special prize inside in honor of Lunar New Year!
(While supplies last. Limit one red envelope per transaction, per day.)

Join Us for a Lion Dance!
The Lion Dance is a Lunar New Year celebration to bring good luck and happiness in the coming year. Enjoy Lion Dance performances at all of our stores.

- Seattle • Sunday, January 31st • 1:00 pm
- Renton • Sunday, January 31st • 3:00 pm
- Bellevue • Sunday, February 7th • 1:30 pm
- Beaverton • Sunday, February 7th
Sunflower Dance Troupe: 2:00 pm • Lion Dance: 2:45 pm

seattle: 206.626.6248 | Bellevue: 425.747.9012 | Renton: 425.277.1635 | Beaverton: 503.643.4512 | www.uwajimaya.com

Family is why we do it all.

We all feel the same commitment to care for our families. Helping you meet your insurance needs is part of my commitment to you.

Like a good neighbor, State Farm is there.®
CONTACT AN AGENT TODAY.

Wayne Nishimura Ins Agcy Inc
Wayne Nishimura, Agent
14780 SW Osprey Dr
Beaverton, OR 97007
Bus: 503-579-3005

Liane Nishimura Ins Agcy Inc
Liane Nishimura, Agent
14780 SW Osprey Drive
Beaverton, OR 97007
Bus: 503-579-3005

statefarm.com®

0907505.1 State Farm, Bloomington, IL

Alpine Mortgage Planning
Your Dreams. Our Expertise.

Tu Phan

Call for:
Refinances
Purchases
Offering:
FHA/VA/Conventional
Mortgages

NMLS # 81395
MLO # 7916
12550 S.E. 93rd Avenue
Suite 350
Clackamas, OR 97015
(503) 496-0531
<tphan@alpinemc.com>
<www.alpinemc.com>

Find us on Facebook