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SCIENCE & INNOVATION CURIOSLY KRULWICH

An 80-Year-Old Prank Revealed, Hiding in the Periodic Table!

BY ROBERT KRULWICH

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You wouldn't know it, because it's hiding down there at the bottom of the periodic table of elements, but it's a prank—something a five-year-old might do—and the guy who did it was one of the greatest chemists in America. It's pure silliness, staring right at you, right where I've drawn my circle, at element 94.

It says "Pu."

"Pu" stands for plutonium, the element named for Pluto, back in 1941 the newest, teeniest planet in the solar system. The American chemist Glenn Seaborg came up with this name after his colleagues found neptunium (element 93) the year before. He and his team at Berkeley had a cyclotron that smashed particles together and so they had an incredible run of discoveries: americium (95), curium (96), berkelium (97), californium (98), einsteinium (99), fermium (100), mendelevium (101), nobelium (102), and finally (and he's the only guy who got his name on an element while still alive), seaborgium (106).

[Learn more about plutonium and other man-made elements in "Twenty-Six New Elements."]'

Seaborg and his colleagues at Lawrence Berkeley Laboratory filled so many once empty boxes on the periodic table that it was said you could write him a letter addressed entirely in his own chemical elements, like this:

So the man knew his periodic table. But could he spell?

Let's go back to Plutonium, which, I don't have to tell you, is spelled P-L-U. There's an "L" after the "P". It's not Puto, it's Pluto. Now look back at the abbreviation on the Periodic Table. What happened? Why no "L"?

When Plutonium was discovered America was about to go to war. In 1942, Seaborg moved to Chicago to join the top secret U.S. effort to build an atomic bomb and helped produce a miniscule amount of plutonium fluoride (about a millionth of a gram). His team found that an isotope of plutonium, Pu-239, could be split, releasing an enormous amount of destructive energy. The Fat Man bomb, dropped on Nagasaki in 1945, had a plutonium core.

The scientists who worked on the A-bomb were not allowed to call element 94 "plutonium." Every ingredient in the bomb was top secret, so they gave it a false cover; they called it "copper." When they had to use actual copper in some of their experiments, they

called that “honest-to-God copper.” Only when the war ended was Seaborg allowed to publish his discovery, and that’s when plutonium became an official element.

Discoverers can not only name their elements, they can also choose the abbreviated symbol that goes onto the periodic table alongside the atomic number. It has to be very short, usually two letters.

There’s a naming committee that reviews and blesses the abbreviations, and so, Glenn Seaborg was free to choose.

Pee-Yoo!

He—nobody else—chose Pu. But why? Two colleagues, writing in *Los Alamos Science* writing in *Los Alamos Science*, a journal published by the famous science lab, say he told them it was a crazy impulse. “The obvious choice for the symbol would have been Pl,” wrote chemists David Clark and David Hobart in 2000, “but facetiously, Seaborg suggested Pu, like the words a child would exclaim, Pee-yoo!” when smelling something bad.”

When I talked to Seaborg’s son Dave, he said the same thing. His dad had a weird sense of humor and “he just thought it would be fun” to treat this element as if it were stinky. You know the face kids make when they say pee-yoo (a la Calvin)? He wanted to sneak that into the periodic table.

It wasn’t an antinuke idea (though Seaborg opposed dropping an atomic bomb on Nagasaki and signed a letter saying so to President Truman). It wasn’t a comment on plutonium’s destructive power. It was just a prank.

What did the naming committee say when Seaborg handed in his abbreviation?

“Seaborg thought that he would receive a great deal of flak over that suggestion,” Clark and Hobart wrote. One imagines the members weren’t exactly a wild and crazy bunch, and yet, for reasons we will never know, “the naming committee accepted the symbol without a word.”

And there it remains. So any time you like, you can look at one of humanity’s greatest intellectual creations, posted in classrooms all over the world, a table that organizes all the stuff of the cosmos into a coherent map, and smack dab at the bottom, somebody’s whispering, “pee-you!”

Robert Krulwich is a journalist and author of the National Geographic blog Curiously Krulwich.