

= Nobelium =

Nobelium is a synthetic chemical element with symbol No and atomic number 102 . It is named in honor of Alfred Nobel , the inventor of dynamite and benefactor of science . A radioactive metal , it is the tenth transuranic element and is the penultimate member of the actinide series . Like all elements with atomic number over 100 , nobelium can only be produced in particle accelerators by bombarding lighter elements with charged particles . A total of twelve nobelium isotopes are known to exist ; the most stable is ^{259}No with a half @-@ life of 58 minutes , but the shorter @-@ lived ^{255}No (half @-@ life 3 @.@ 1 minutes) is most commonly used in chemistry because it can be produced on a larger scale .

Chemistry experiments have confirmed that nobelium behaves as a heavier homolog to ytterbium in the periodic table . The chemical properties of nobelium are not completely known : they are mostly only known in aqueous solution . Before nobelium 's discovery , it was predicted that it would show a stable + 2 oxidation state as well as the + 3 state characteristic of the other actinides : these predictions were later confirmed , as the + 2 state is much more stable than the + 3 state in aqueous solution and it is difficult to keep nobelium in the + 3 state .

In the 1950s and 1960s , many claims of the discovery of nobelium were made from laboratories in Sweden , the Soviet Union , and the United States . Although the Swedish scientists soon retracted their claims , the priority of the discovery and therefore the naming of the element was disputed between Soviet and American scientists , and it was not until 1997 that International Union of Pure and Applied Chemistry (IUPAC) established nobelium as the official name for the element and credited the Soviet team with the discovery .

= = Discovery = =

The discovery of element 102 was a complicated process and was claimed by groups from Sweden , the United States , and the former Soviet Union . The first complete and incontrovertible report of its detection only came in 1966 from the Joint Institute of Nuclear Research at Dubna (then in the Soviet Union) .