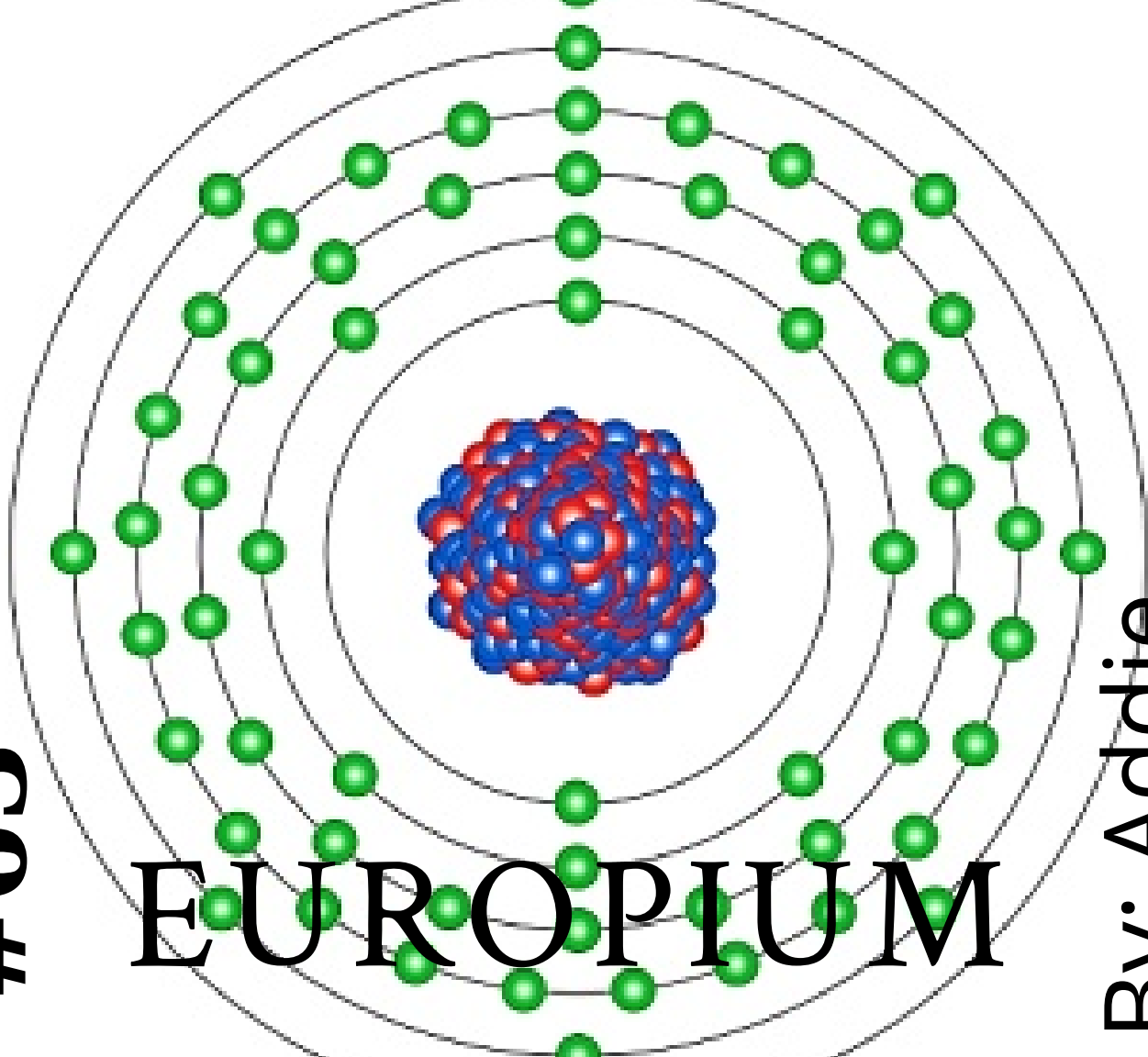


#63



EUROPIUM

By: Addie



INTRODUCTION

Europium is found in the middle bottom of the periodic table. You find a big number 63 on the top with big letters of Eu. When you watch t.v. do ever wonder how the light is produced? well if you have, you should thank Europium. Read more to learn about this amazing element Europium!

63

Eu

Europium

151.966

STRUCTURE

Being the 63rd element on the periodic table, its atomic number is 63. This means that there is going to be 63 protons and this means that the valence electrons in the atom Europium is 63 too. The neutrons however, have 89 because you subtract the atomic mass by the atomic number. Then, you range the number to the nearest hole.

The atom, Europium is a medal in the lanthanide's group. Europium is not a gas but a solid.

Europium is the most active of the lanthanide's. It reacts quickly with water to give off hydrogen. It also reacts strongly with oxygen in the air, catching fire spontaneously. Scientists must use great care in handling the metal. This is one of Europium's chemical properties. One of it's physical properties is that Europium has a bright, shiny surface. It is steel gray and has a melting point of 826°C ($1,520^{\circ}\text{F}$) and a boiling point of about $1,489^{\circ}\text{C}$ ($2,712^{\circ}\text{F}$). In fact, most of the red light you see has some sort of Europium in it.



Discovery



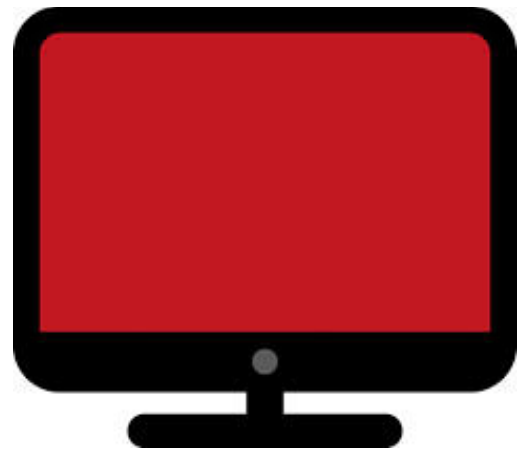
Europium's name comes from the continent Europe. A man named Eugène-Anatole Demarçay was the first person to discover this element.

Demarçay didn't know that samples of a recently discovered element,

samarium, were mixed or combined with an unknown element. He was able to produce Europium reasonably pure in 1901. A fun fact about europium is that it was one of the last rare earth elements to be found. Europium is never found in nature as the free element. Europium is found in the ores and Masonite sand. The thing is about Europium is it is very hard to separate from other rare earth Europium is a very interesting element that is rarely by its self. Europium is mostly always combined with other elements.

COMPOUNDS AND USES

Sense Europium is rare and was one of the last earth metals to be found, it is not used for anything at this point. The thing is though every time you see red light on your t.v you are also seeing Europium. Europium is used through the electrical cords of the t.v to produce red light. Europium is identified in the sun and some stars. Also, Europium is considered to be mildly toxic. The metal dust is considered to be a fire and explosion hazard. Europium is not used for anything in the human body, only t.v.s. I had a great time learning about this element and I hope you did too!



Fun facts

**Europium was first found by Paul Emile Lecoq de Boisbaudran in 1890. But its discovery is credited to the French chemist Eugene-Antole Demarçay in 1901.*

** \$1350 per gram*

** A large number of naturally occurring minerals contain europium.*



I
HOPE
YOU
ENJOYED
THE SHOW

Who am I?

My name is Addie. I am in Ms. Rogstad's 6th grade class in the year of 2016. I have learned so much about this element and I really enjoyed it and I hope you do too!