# A Scientist who was Buried in a Lead Coffin

How Marie Curies's discovery killed her?

## Merry Janson



(Made with Playground)

Imagine you stroll into the National Library of France. And among the sea of shelves, there is one shelf on which a lead-lined box is placed. To even crack it open and see what's inside, you have to wear proper protective apparel like you're going to space.

So, are we talking about ancient curses? Deadly mold? What could be in there that's so risky?

We need to go back in time, to solve this mystery, when the most radioactive element on Earth was about to come to everyone's attention. So, if you ever wonder how we got into this whole radioactive revolution. It was because of a woman.

Now, you might have guessed that. Yup, we're talking about none other than Madame Marie Curie. She believed as she said:

"Nothing in life is to be feared, it is only to be understood. Now is the time to understand more, so that we may fear less."

### - Marie Curie

It all started with a young girl from Poland, hungry for knowledge and unafraid to chase her dreams. In her youth in Poland, she was not allowed to attend university, because she was a girl. She didn't make an excuse out of it and to quench her thirst for knowledge she joined the secret "Flying University." It was like Hogwarts but for

Polish students who were shut out of regular universities, especially girls like Marie. As quoted by Marie Curie:

"First principle: never to let one's self be beaten down by persons or by events."

#### - Marie Curie

Marie and her husband, Pierre Curie were nominated for a Nobel Prize in Physics, along with Henri Becquerel, for their groundbreaking work on radioactivity, in 1903. But you won't believe it, when they first announced the prize, only Pierre's name was mentioned. They almost didn't let Marie win just for being a woman. Back then, women didn't get much credit for their work in science.

But they couldn't just brush off Marie's huge contributions. They eventually added her name to the nomination on the complaint of her husband. And that's how she became the first woman ever to win a Nobel Prize. That was a big deal! While people were making fun of her, she was making history. It's true that:

"There is no limit to what we as women can accomplish."

## - Michelle Obama

When she won her second Nobel Prize, in 1911, for discovering two new elements radium and polonium, the committee sent her a letter saying she didn't have to go to Sweden to get it. They would just mail it to her instead. They wanted to avoid unnecessary controversy in the media because rumors were spreading about her relationship with physicist Paul Langevin, a former student of her late husband.

But she was determined to go and get the award herself. The Swedish women warmly applauded her for bravely coming to accept the Nobel Prize amidst all the controversy surrounding her. She took a stand for herself. She didn't want all the fuss to take away from her accomplishments.

"Each time a woman stands up for herself, without knowing it possibly, without claiming it, she stands up for all women."

# — Maya Angelou

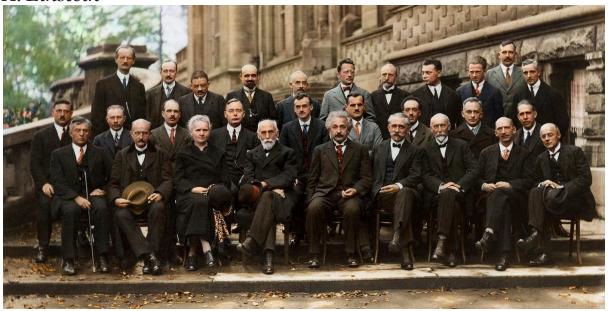
Even Einstein got really upset by how the media and the public were treating her and he wrote her a letter to show his support despite all the controversy.

Einstein said to her in the letter

I am deeply saddened by the way the public is currently treating you. I believe you have always handled yourself with dignity. I want you to know how much I admire your intelligence, your determination, and your honesty. I feel fortunate to have met you in person in Brussels. Don't pay attention to the gossip; focus on those who truly appreciate you.

# Warm regards,

#### A. Einstein



Solvay conference

This picture is one of the most iconic images in the history of physics, taken at the Solvay conference. In this picture, Marie Curie is the only lady sitting alongside the top male scientists of the time, such as Albert Einstein, Max Planck, and Hendrik Lorentz. It wasn't just her success, she became a symbol of hope for women in science down the road. It's proof that when it comes to talent, gender doesn't matter one bit.

Marie Curie wasn't just a genius scientist; she was also a great mother and mentor. She passed on her legacy to her daughter, Irène Joliot-Curie, who snagged a Nobel Prize too. The Curie family won a total of four Nobel Prizes showing their supremacy in the world of science. Did you know during World War I, Marie Curie used her knowledge of X-rays to help out wounded soldiers? She and her daughter, Irene, made portable X-ray machines called "Petites Curies". They worked along with front-line doctors on the battlefield and helped them to find bullets in injured soldiers faster. Her work saved many lives, and people started calling her "Madame Curie, the Radiologist."

Thanks to Marie Curie, we've got radiotherapy, a major treatment in fighting cancer today. Just imagine how many cancer patients are getting treated with radiation therapy every single day, all because of Marie Curie introducing it to us.

Marie Curie and her daughter, Irène, both died due to radiationrelated illness. Marie suffered from aplastic anemia, while Irène later lost her battle with leukemia. Marie regretted that by saying:

"Knowledge leaves no regrets. Except for radiation. I wish I'd never messed with that."

#### — Marie Curie

Now, to answer the question I brought up earlier. Marie Curie's books are stored in special lead-lined boxes at the National Library of France. Why? Because they're radioactive! They will keep on emitting radiation for thousands of years and will endanger their readers' lives if they are handled without protection.



(Made with Playground)

Just think about Marie herself, working with all those radioactive elements throughout her life without any safety shields. She often used to cough up blood in the latter years of her life. She was one of the first to dive into the world of radioactivity when people knew nothing about its side effects.

Marie sacrificed her body for research, paving the way for future generations. Even when she passed away, she was buried in a leadlined coffin, to prevent the spreading of radiation from her body because she was highly radioactive. She lived for her research, and she died because of it too.

"A scientist in his laboratory is not a mere technician: he is also a child confronting natural phenomena that impress him as though they were fairy tales."

— Marie Curie