

## More than the Radium Girls

Reni Joseph,<sup>1</sup> Elaine Jurkowski,<sup>2</sup> William Uhland,<sup>3</sup>

<sup>1</sup>Meramec College, Saint Louis, Missouri;

<sup>2</sup> Southern Illinois University Carbondale, Carbondale, Illinois;

<sup>3</sup>Curium Pharmaceuticals, Maryland Heights, Missouri

**Topic:** Setting their Table: Women and the Periodic Table of Elements

### Abstract:

This account summarizes and discusses the alpha scattering experiments by Ernest Rutherford in the early Twentieth Century. This work showed J.J. Thompson's Plum Pudding model of the atom to be at fault, and gave rise to the Rutherford planetary model of the atom, that would last until Niels Bohr used quantum theory to explain atomic behavior.

Most of the workers employed by Rutherford to perform the alpha scattering experiment and record the data were female. This was due to the fact that at the time, it was thought that women had more sensitive eyes, and hence could see the flashes of light more accurately, and by the additional wisdom of the time that women were not prone to thinking. The later meant that they were more apt to correctly notice the scintillations, whereas a male investigator might miss such events due to distractions caused by his thought processes.

This account will try to imagine the era when these experiments were performed, and the mindset of the people performing them.

**Acknowledgements:** This work was partially supported by .....

### References

1. Rhodes, Richard. *Making of the Atomic Bomb*. 1987
2. More References to follow...