

An explanation of the (then) current theory that Thomson was trying to refute:

Scientists had normally gone with the explanation that magnetic fields produced waves and ultraviolet radiation, which were the main cause as to why, when experimenting with cathode rays, the rays were normally deflected.

Thomson did not agree with this line of thinking, and thought that he could somehow find a way to refute this idea by experimenting with different cathode rays and subjecting them to magnetic fields.

What was Thomson trying to accomplish?

J.J. Thomson was most interested in finding why the rays could be deflected when subjected to the magnetic fields. Through these experiments, he was able to prove that there was a unit even smaller than atoms.