

action of penetrating rays coming from external sources.

6. By various tests it was found impossible to trace the activity of potassium salts to the existence in them of minute quantities of any of the known radioactive elements or their active products.
7. Of all the elements in the alkali group, potassium alone has been found to exhibit marked radioactivity. Both sodium and all of its salts were found to be quite inactive, and although a sample of rubidium alum exhibited an activity which was extremely small, and a specimen of caesium chloride one which was only just measurable, sufficient evidence has not been adduced to support exclusively the view that the activities observed were due to a physical property of the metallic constituents of these salts.

In conclusion, we wish to express our very great indebtedness to Prof. Lang and to Prof. Lash Miller, as well as to other members of the staff in the Department of Chemistry, for their kindness in placing at our disposal a number of the specimens of the salts examined.

Physical Laboratory, University of Toronto,
August 5, 1908.