

From Polonium in 1898 to the world of artificial radioisotopes in the 1930's

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The word “radioactive” appeared for the first time in Pierre and Marie Curie’s paper announcing the discovery of Polonium. Starting with memory of this seminal event and the discovery of Radium, the talk will focus on a few of the tremendous successes achieved in the 30s, namely the successive discoveries of the neutron and the positive electron, followed by the discoveries of artificial radioactivity and later of fission. Experimentalists were confronted with many problems as their interest shifted from radioactivity to “artificial disintegration” and cosmic rays experiments. The first discovered β^+ radioactive isotopes, ^{30}P and ^{13}N , and the first fission produced nuclei appear as early steps toward the quest of more and more exotic nuclei.