

BRECKPOT Raymond

Born: June 23, 1902 (Kemzeke)

Died: November 13, 1983 (Leuven)

Biography

In 1923 Breckpot graduates as a Dr.Sc. at the University of Leuven (His mentor is professor Pierre Bruylants). The subjects of his dissertation is about the synthesis of a series of new β -amino acids, -esters and -alcohols. In 1924 he obtains the degree of doctor in pure and applied chemistry. He spends the next year at the laboratory of Professor Steglitz in Chicago as a C.R.B.fellow and in 1925 he starts his academic career at the Agricultural Institute in Leuven, followed by his appointment as professor of mineral (1926) and analytical chemistry (1928).

In 1935 he succeeds professor Louis Michiels as head of the laboratory of analytical chemistry.

In 1944 he is appointed holder of the chair of inorganic chemistry and director of its research laboratory. In Leuven he is head of the Agricultural Institute, of the Special Schools for civil engineers and dean of the faculty of sciences.

He is a confirmed advocate of the cooperation between the industrial and the academic world. In 1946 he is appointed head of the research department of Metallurgie-Hoboken.

In 1939 he is co-founder of KVCV (Koninklijke Vlaamse Chemische Vereniging – Royal Flemish Chemical Society, at the time “Vlaamse Chemische Vereniging”, becoming de facto “Royal” after 60 years of its existence).

From co-founder he rises to vice-chairman from 1939 till 1943 and chairman from 1945 till 1949.

On October 13 of 1945 he becomes a corresponding member of the Royal Flemish Academy of sciences and arts, active member in 1983 and chairman in 1955.

Due to his failing health he cannot assist at the meetings of the RFAsa but is awarded the gold medal.

He is a member of the American Chemical Society, the Institute of Metals (London) and corresponding member of Real Academia de Ciencias (Madrid)

Scientific Contributions

- 1) The study of electrical, magnetic and optical properties of semi-conductors and thermo-elements;
- 2) The structure and changes in the structure of arsenides and sulfides;
- 3) The chemical metallurgy of separation methods of nickel/cobalt, niobium/tantalum, liquid/liquid and liquid/solid phase;
- 4) The electrochemistry and electrolytic refining of very pure cobalt and copper with a new crystallographic structure.

His first research is directed towards the organic chemistry and syntheses. He makes an interesting study of β -lactams, which come in very useful in the synthesis of penicillin and other antibiotics.

His interest in the spore elements in natural products and metals makes him aware of the possibilities of spectral analysis and he is the founder (1934) of the laboratory of spectrochemistry and spectral analysis.

From 1939 till 1949 he contributes a lot to *Spectrochemica Acta*, of which he is the co-founder.

In the thirties and the forties his main research concerns the determination of minimal quantities of impurities in metals and ores by spectrographical and polarographical methods. His techniques are well received and acted on by the Belgian and international industry.

In the same line Breckpot strives to obtain very pure metals and their physical and chemical properties.

For his research he is awarded the Jean Stas prize (1923) and the Louis Melsens prize in 1934.