

RESUME

Bertram C. Raynes
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Date of Birth: March 12, 1924
Married, no children.

JOB OBJECTIVE: Responsible technical and administrative direction and management on the project level.

PROFESSIONAL EXPERIENCE:

May, 1951 to Present. Present position, Head, Process Engineering Department in a medium-sized independent applied research and development laboratory, Horizons Incorporated, Cleveland 4, Ohio. The company conducts research and development in the physical sciences under contract to industrial sponsors and to the government. The Department is charged with numerous responsibilities including process development and applied research; pilot plant design, fabrication and operation; bench scale development; cost estimation; preliminary plant layout; and other applied research and engineering functions as required.

Duties include technical direction, and administrative, managerial and company promotional and liaison functions.

Major projects involved the process and extractive metallurgy of refractory metals and their electrochemical reactions at elevated temperatures (to 1200°C) in fused salts; materials development in the area of high temperature substances; design, development, and direction of operation of specialized equipment for remote-control manipulation of corrosive fluids and gases at temperatures to 1000°C; the upgrading of ores by a variety of methods; the preparation of inorganic fibers of several kinds; and cost estimation and process evaluation studies in a wide variety of technological and business areas.

1950 - 1951. Chemical Engineer at The Brush Beryllium Co., Cleveland, Ohio. Pilot plant, production and fabrication experience in beryllium and in zirconium and hafnium metals.

1944 - 1951. General Electric Co. Research Laboratory, Schenectady, N. Y. Research assistant in chemical engineering group, involved with pilot development of methyl and allyl chlorosilanes, and diborane and certain related high energy fuels.

EDUCATION:

The Pennsylvania State University - BS in Chemical Engineering, 1944
Union College, Schenectady, N. Y. - MS in Chemistry, 1949

PUBLICATIONS, PATENTS, SOCIETIES:

Author or co-author of nine (9) issued patents and five (5) technical papers. Member American Institute of Chemical Engineers, American Chemical Society.