

Relative to the physical properties of the two samples of beryllium oxide, the reaction to sample A was considerably severer and more sustained than that to sample B; studies of solubility and electron microscopy have revealed that the rate at which beryllium oxide goes into solution is greater with samples that have been calcined at relatively low temperatures than with samples calcined at higher temperatures⁸; furthermore, the former seem to have a much greater surface: weight ratio than the latter.⁸

SUMMARY

Beryllium granulomas have occurred in the skin and subcutaneous tissues of pigs after implantation of phosphor powders which contain beryllium oxide.

Nonspecific granulomas of foreign body type occurred in the tissues into which metallic beryllium or beryllium oxide alone had been implanted.

Two different samples of powdered beryllium oxide, one of which was calcined at a relatively low temperature for a relatively short time as contrasted with the second, produced tissue reactions that differed greatly. The more extensive and protracted reaction was produced by the powder which had been calcined least.

The electron micrographs were prepared by Mr. Francis W. Bishop, Electron Microscope Laboratories, University of Rochester Atomic Energy Project.

8. Hall, R. H.; Scott, J. K.; Laskin, S.; Stroud, C. A., and Stokinger, H. E.: Acute Toxicity of Inhaled Beryllium: III. Observations Correlating Toxicity with the Physicochemical Properties of Beryllium Oxide Dust, *Arch. Indust. Hyg. & Occup. Med.* **2**:25-48 (July) 1950.