TABLE 17.—*Summary of Injection Experiments by Intravenous Technic*

Dosage: Total amount of dust was 1.0 Gm., divided into 20 equal doses (each dose was 5 cc. of a 1 per cent suspension) which were given twice a week for 10 weeks.

Mineral	Size of Dust Particles	Rabbits Used	Maximum Survival After Last Injection, Mo.	Results
Chrysotile (Thetford)	3 microns and less (ball milled 192 hr.)	6	..	The rabbits did not tolerate intravenous injections of finely ground chrysotile and 5 of the 6 died after 1 to 5 injections of even diluted suspensions; the other animal died after 27 injections of one-quarter strength suspension (69 days after first injection). Reaction limited to few large giant phagocytes of inactive type in liver, spleen and lungs. No thrombi of dust cells seen in pulmonary capillaries. No definite explanation for fatalities discovered, but material may have been retained in heart, causing local thrombi.
Amosite	3 microns and less (ground in agate mortar)	5	17	Advanced pulmonary infection killed 3 animals at 9, 11 and 17 mo. after last injection, shortening intended duration of experiment and complicating picture. However, rabbits killed earlier (3 and 6 mo.) showed only inert phagocytosis with no progression in the 6 mo. animal. The last two (11 and 17 mo.) were probably the same although focal necrosis of the liver and amyloid of the spleen made interpretation difficult.
Crocidolite	3 microns and less (ground in agate mortar)	4	12	Reaction was that to an inert substance with no change in 12 mo. (Other observations at 3, 4 and 6 mo.) Simple phagocytosis of particles. No tendency to agglomerate and no change in adjacent tissues. Grinding the dust to sizes of 3 microns and under destroyed the fibrous structure of this mineral, and the injected material resembled plates rather than fibers.
Anthophyllite	3 microns and less (ball milled 1,400 hr.)	4	24	Reaction essentially that of an inert mineral. Observations made at 3, 6, 12 and 24 mo. Only suggestion of irritating properties manifested in spleen and lymph nodes, but not liver, of the 24 mo. rabbit. In this animal there had been proliferation of mononuclear and giant cells that was not present in either spleen or lymph node of 12 mo. animal. The absence of associated fibroblastic reaction in these organs and of any change in the liver condition justifies the classification of anthophyllite as an inert silicate. No fibers were retained in lung to demonstrate whether asbestosis bodies would develop.
Tremolite (soda-iron)	3 microns and less (ball milled 140 hr.)	4	19	Reaction essentially that of an inert mineral. Last animal killed showed a little proliferation and lymphocytic infiltration in liver, not seen earlier (at 3, 6 and 12 mo.). No evidence of any activity in lesions in other organs.
Tremolite (soda)	3 microns and less (ball milled 48 hr.)	4	24	An inert foreign body reaction with no change in 24 mo. Observations made at 3, 6, 12 and 24 mo.