

"ACTIVATION ANALYSIS DETERMINATION OF U AND Pb
IN APOLLO 11 LUNAR FINES"

Anthony Turkevich¹, G. W. Reed, Jr.², H. R. Heydegger³,
and J. Collister⁴

The U-238 abundance in the Apollo 11 Type D material (10084,58) has been determined via the U-238(n,2n)U-237 reaction with a resultant mean value from four replicates of 0.53 ± 0.02 ppm.

Neutron activation analysis has also been applied to the determination of the indigenous Pb-204 in the same sample via the Pb-204(n,2n)Pb-203 reaction, with the resultant values varying between 1 and 8 manograms Pb-204 per gram of sample.

¹ Enrico Fermi Institute and Department of Chemistry, University of Chicago, Chicago, Illinois 60637.

² Argonne National Laboratory, Argonne, Illinois 60439 and Enrico Fermi Institute, University of Chicago, Chicago, Illinois 60637.

³ Enrico Fermi Institute, University of Chicago, Chicago, Illinois 60637. Present Principal Affiliation: Department of Chemistry, Purdue University, Hammond, Indiana 46323.

⁴ Enrico Fermi Institute, University of Chicago, Chicago, Illinois 60637. Present Address: York University, Toronto, Canada.