

A GEOCHEMICAL ASSESSMENT OF POSSIBLE LUNAR ORE FORMATION

Larry A. Haskin and Russell O. Colson
Washington University-St. Louis

David T. Vaniman
Los Alamos National Laboratory

Stephen L. Gillett
Mackay School of Mines

From studies of lunar samples we know that extensive chemical fractionation occurred during the Moon's igneous differentiation, and from remote sensing studies we know that the Moon's outer crust is laterally and vertically heterogeneous on large and small scales. Here, we review current knowledge of chemical compositions of lunar materials in the context of known or suspected lunar geochemical processes. We speculate on how various elements might have been concentrated into potential ore deposits.