



Terrestrial analogs to planetary basaltic volcanism

Ronald Greeley

Arizona State University, School of Earth and Space Exploration, Tempe, Arizona 85287-1404 United States
(greeley@asu.edu, 480-965-8102)

Volcanism is pervasive throughout the inner solar system and appears to be predominantly of basaltic compositions. Although this was recognized from early planetary mission results, modern spacecraft currently exploring Mercury, Venus, the Moon, and Mars are returning new data on the morphology and composition of the volcanic terrains and features. Terrestrial analogs provide critical insight into the styles of eruptions and modes of emplacement of eruptive materials in other planetary environments. Particularly instructive are observations of active eruptions in Hawaii, Iceland, and elsewhere, coupled with study of other basaltic terrains, as in the western United States. Unresolved, however, is the issue of differences in scale among apparently similar features among the planets.