Shock metamorphism and origin of the regolith at the Apollo 11 and 12 landing sites

The following shock effects have been observed: Deformation structures in plagioclase, pyroxene, olivine, and ilmenite; solid state transformation of plagioclase into diaplectic glass; shock induced melting of rocks. Comparison of fines and breccias of Apollo 11 and 12 reveals the uniformity of the formation processes of the lunar regolith. The origin of breccias and glasses is discussed.