Lunar pigments: Possible presence of porphyrins in an Apollo 12 sample.


Abstract: Porphyrin-like pigments were found in a sample of lunar fines (12023) collected on the Apollo 12 mission at a sampling point well removed from the lunar landing vehicle. Abundance of the pigments was estimated to be $5 \times 10^{-5} \, \mu g/g$. This sample appeared to be free of rocket exhaust products, whereas a sample of lunar fines (12001) taken from near the lunar module showed considerable amounts of fluorescent pigments which are attributed to the exhaust of the rocket engine.