The energy spectrum of high group solar cosmic ray particles has been determined for the first time over the energy range of 0.5 to 50 MeV/nucleon using glass removed from the Surveyor III spacecraft. The difference between the observed (energy)$^{-3}$ spectrum and the limiting spectrum derived previously from tracks in lunar rocks gives an erosion range of one Å/year. High energy fission of lead induced by galactic cosmic ray proton and alpha particles has also been observed.