Results: Diffusion (Fig 5)

Y-intercept: ln(D0/a2) = pre-exponential factor for spherical geometry
Slope: -Ea/R = activation energy
Steeper slope = higher activation energy

Low-temperature steps in both samples exhibit a clear diffusive loss pattern (Fig. 5). The time of the loss on the lunar surface appears to be different between the two subsplits, but this effect needs to be verified with further subsplits.

• Low-temperature steps consistent with Ar diffusive loss from the fine-grained matrix
• Broad (80% 39Ar release) set of mid-T steps form a poor plateau in both splits but lie along a well-constrained isochron (Fig. 6)
• Upturn in apparent ages in the last 10% of 39Ar degassing at high temperatures, likely related to recoil of 39Ar into neighboring locations due to the long irradiation

Results: Cosmogenic and trapped gases (Fig 6)

Both samples had relatively high initial 40Ar/36Ar ratio due to significant amounts of cosmogenically produced 36Ar and 38Ar
Subtraction of the cosmogenic gases corrected nearly all the trapped component and brought the isochrons (only mid-T steps shown) in line with the plateaus (Fig. 6)