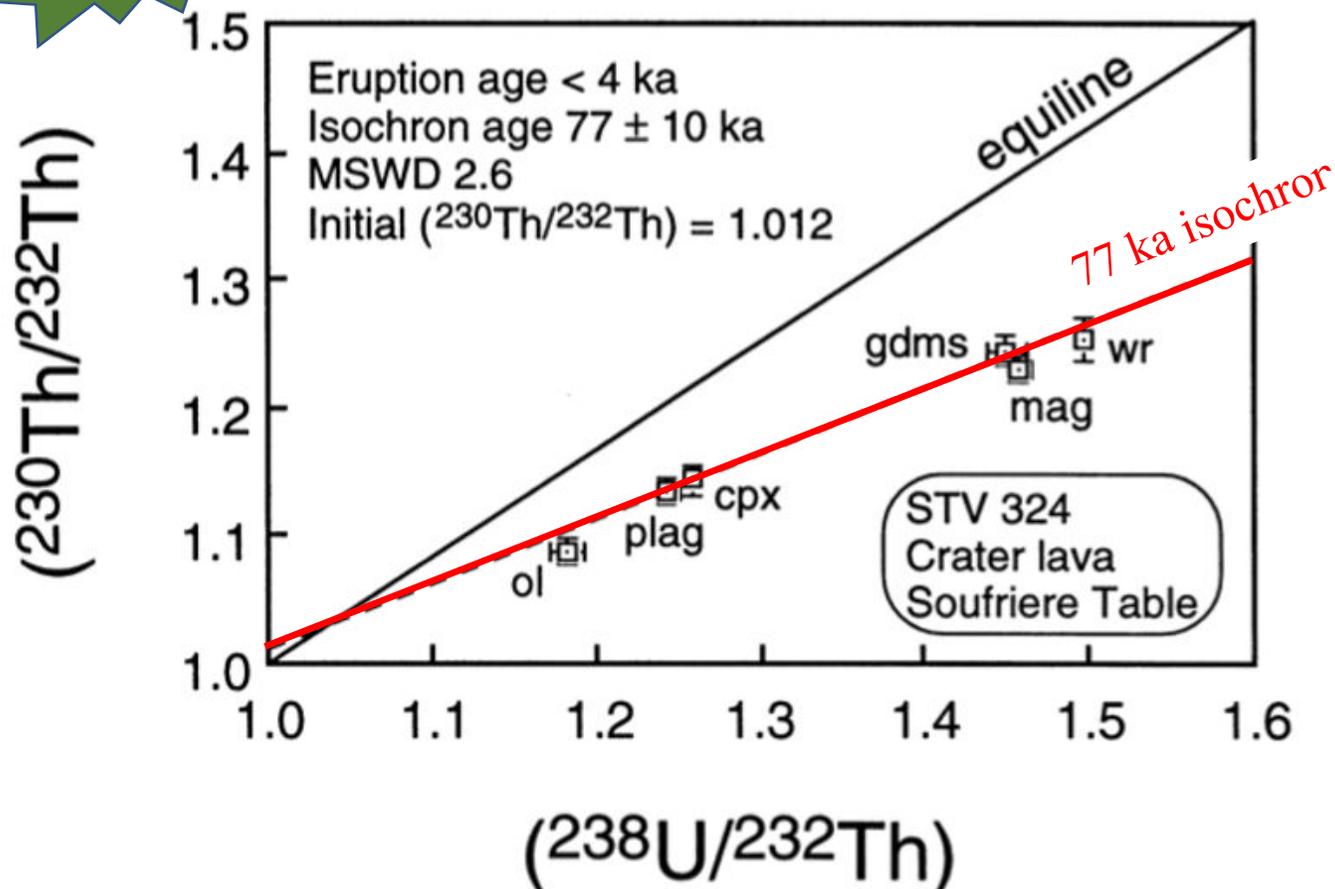


Mush..... or No Mush? Crystal Ages in Arc Magmas

Terry Plank, *Lamont Doherty Earth Observatory, Columbia University* ——— with Kari Cooper, *UC Davis*

Mush !!

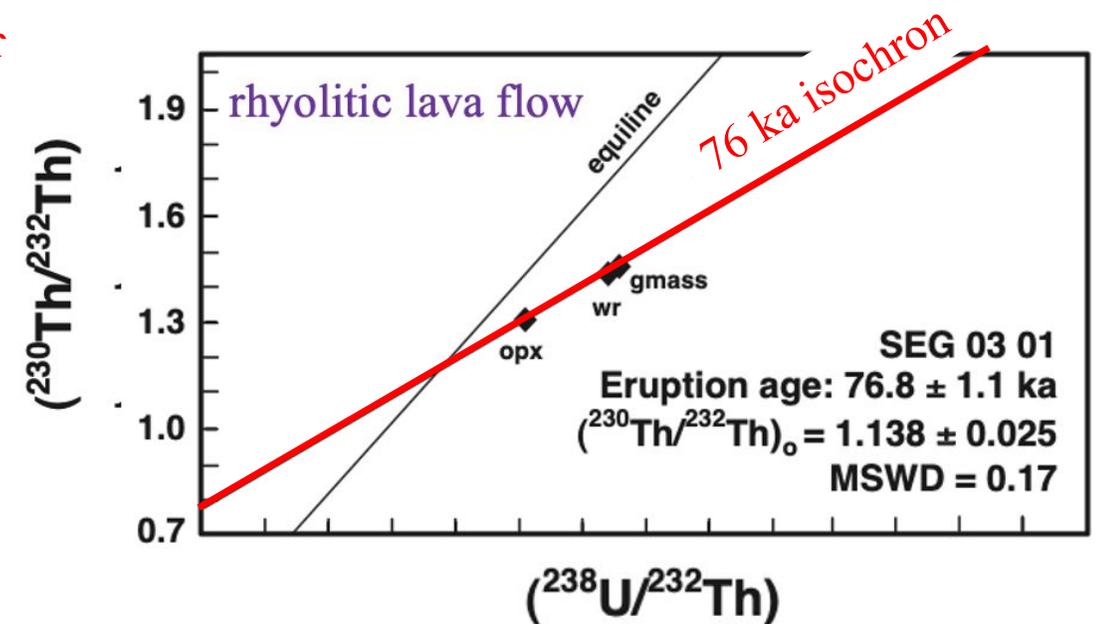
Soufriere St. Vincent, Lesser Antilles
4 ka eruptive contains
77 ka crystals



Heath et al. (1998)

No Mush !!

Seguam, Aleutians
77 ka eruptive contains
76 ka crystals



Jicha et al. (2005)

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- Why do some volcanoes have Mush magma systems and others don't?

Soufriere 1979 – MUSH

67 wt% SiO₂ Matrix Glass
54 wt% SiO₂ Whole Rock

Low Magma Flux?

Seguam 1977 – no MUSH

54 wt% SiO₂ Matrix Glass
51 wt% SiO₂ Whole Rock

High Magma Flux?

- Why did the community stop measuring internal mineral U-Th isochrons in dated samples?