

Extreme Silicate Absorbers in WISE/UKIDSS

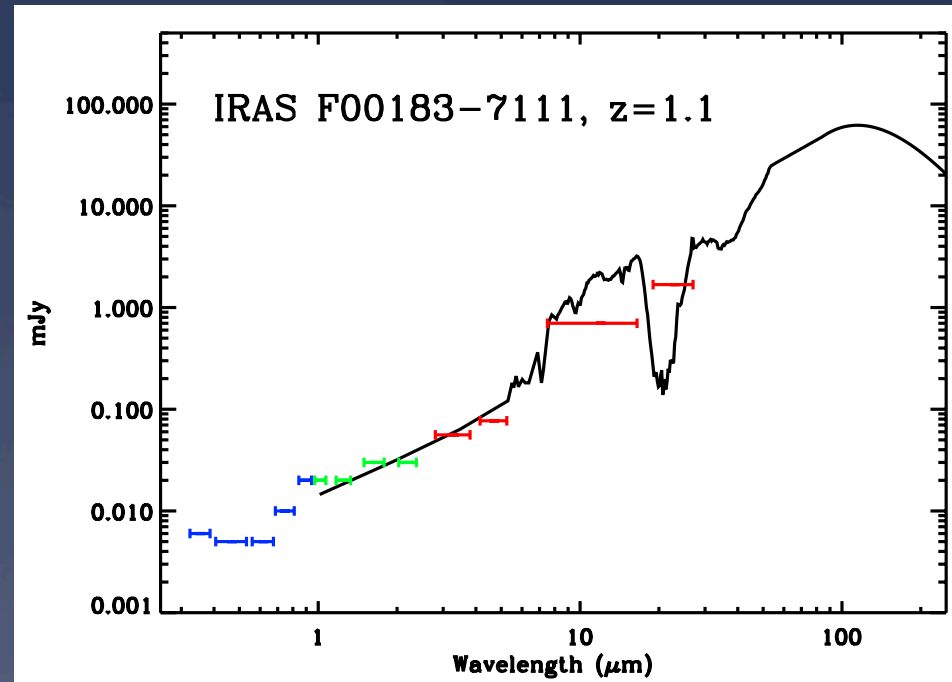
James W. Colbert

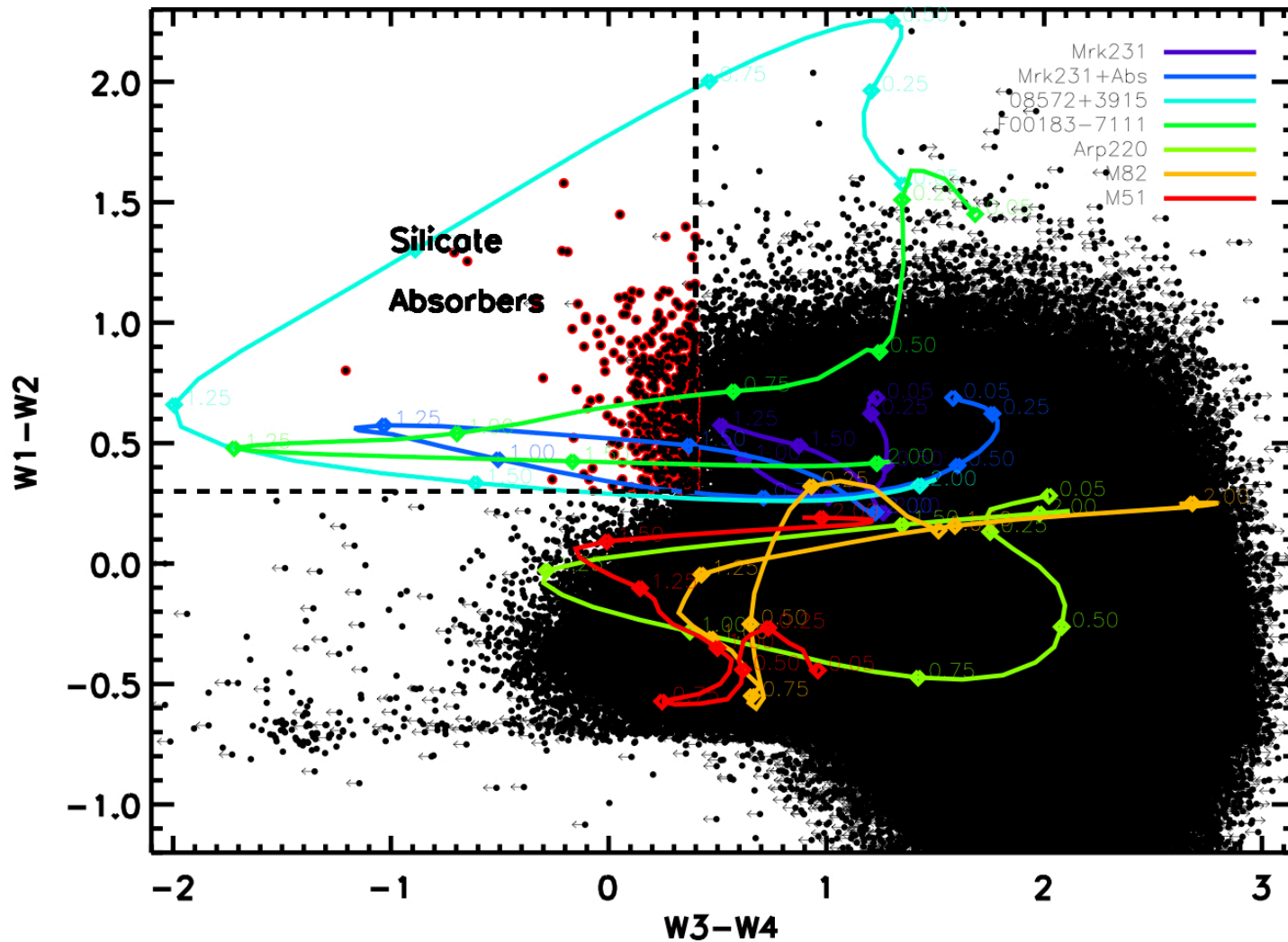
With Lee Armus, Vassilis Charmandaris, Georgios Magdis, Jason Marshall, & Harry Teplitz

Extreme silicate absorbers ($\tau_{9.7} \sim 5$ mags) are a rare class of ULIRGs.

Can not be explained as foreground extinction by a simple screen of cold dust covering a large extended star forming region. Must be small, entirely enveloped regions.

Likely completely buried AGN. Must be rapidly blowing off this dusty gas. Potentially inform us about the brief epoch where the hand off from star formation to accretion domination takes place.





Can use WISE colors to select $0.8 < z < 1.5$ extreme silicate absorbers with rising SED and drop in W4 ($22 \mu\text{m}$) filter. But with WISE colors alone, contamination is substantial, requiring addition of near-IR (UKIDSS).

Out of 1.6 million WISE/UKIDSS sources, 200 satisfy all criteria: 0.2 deg^{-2}