



Figure 5. Empirical cumulative density functions (cdfs) for a variety of different terrains on the Moon along with the relevant Kolmogorov-Smirnov statistic (K_{stat}) for two distributions. K_{stat} is a statistical metric based on the maximum difference between two cdfs and provides a test of whether two populations are different. (a) Comparison of the mare and highlands excluding SPA [see also *Strom et al., 2005; Ćuk et al., 2010, 2011; Head et al., 2010*]. These terrains (Figure 4) are from statistically significant different populations of craters. (b) Comparison of SPA and the highlands excluding SPA (Figure 4); these distributions are consistent with being from the same population (not significantly different), though SPA has a modestly fewer craters in the $D = 20\text{--}64$ km size range. (c) Comparison of Imbrian basins and the mare, which are not significantly different. (d) Comparison of Nectarian basins and the mare, which are not significantly different. (e) Comparison of Imbrian and Nectarian basins (see also Figure 6), which are not significantly different. (f) Comparison of Nectarian and Pre-Nectarian basins (see also Figure 6). These are different at 94% confidence. (g) Comparison of Nectarian and Pre-Nectarian basins for craters larger than 40 km; these are different at 83% confidence. (h) Comparison of Pre-Nectarian basins and the highlands excluding SPA for craters larger than 40 km. These are not distinguishable in this size range. At smaller sizes, the ‘average’ highlands excluding SPA have fewer craters than these Pre-Nectarian basins (compare Figures 4 and 6). This difference at small sizes may be a result of moderate deficiency in 20–40 km craters in the highlands curve (due to crater removal and modest incompleteness) (see section 3.2).