⊦ #0184

An overview of Chilean DCAs : San Juan and El Médano

Hutzler*, A., Gattacceca, J., et al.

*CEREGE, 13545 Aix-en-Provence, hutzler@cerege.fr.

Atacama desert is the driest hot desert on Earth, thus being a good spot for meteorites recovery. Over the years, our team explored systematically the Central Depression, and defined several new DCAs. We can now compare two DCAs, San Juan[1] and El Médano. Both collections show an overabundance of small meteorites, compared to other hot desert DCAs collections, verifying that research on foot is the only way to get a statistically reliable collection.

We recovered 48 stones on 3.88km² at San Juan, and over 200 on 1.5km² at El Médano. This is in agreement with the observed higher meteorite density at El Médano. Surface ages were determined on quartz pebbles collected on the surface, using in situ produced cosmogenic ¹⁰Be. Assuming no denudation, San Juan surface is around 1,5Myr old, whereas El Médano surface is probably more than 4Myr old. After classification and pairing, we compare meteorite density, mass and type distribution. We observe a higher H/L ratio and an excess of type 3 in both DCA compared to fall statistics.

[1] Gattacceca et al., Meteoritics & Planetary Science 1-12 (2011)

+

Cite abstract as:

Hutzler, A., Gattacceca, J., Rochette, P. (2012) An overview of Chilean DCAs: San Juan and El Médano. Paneth Kolloquium, Nördlingen (Germany), abstract URL:

http://www.paneth.eu/PanethKolloquium/2012/0184.pdf (abstract #0184).