

Tuesday, July 24, 2018

IMPACT CRATERING PROCESSES AND DYNAMICS OF SMALL BODIES: II

1:30 p.m. Green Room

Chairs: Michael Poelchau
Toni Schulz

- 1:30 p.m. Schulz T. * Ozdemir S. Koeberl C.
[*New Perspectives from old Spherules — Archean Impact Layers and the Early Meteorite Bombardment of the Earth*](#) [#6141]
We review the evidence for chondritic impactors recently proposed for up to 21 newly recovered spherule layers from the Barberton Area (South Africa) reflecting early meteorite bombardment of the Earth.
- 1:45 p.m. Herrmann M. * Alwmark C. Scherstén A. Næraa T. Söderlund U.
[*LA-ICP-MS U-Pb Dating of Shocked Zircons of Siljan Impact Structure, Sweden — Impact-Related Ages or Post-Impact Hydrothermal Pb Loss?*](#) [#6218]
We present U-Pb data on rocks from Siljan impact structure, Sweden, affected by shock pressures ranging from 0 to 20 GPa. The lower intercepts lie between 540 ± 150 Ma and 129 ± 160 Ma, reflecting hydrothermal Pb loss instead of the impact event.
- 2:00 p.m. Zaitsev V. A. *
[*Model of Terrestrial Impact Craters Preservation*](#) [#6298]
Model of impact craters preservation in the denudation and sedimentation process was proposed. Analytical solution and step-by-step calculation show that probability of existing of the crater decrease by the power law fits to geological observations.
- 2:15 p.m. Haas B. A. * Floss C. Ogliore R. C.
[*FIB-TEM Study of 6 Submicron Craters from Stardust Foil C2113N-A*](#) [#6266]
We performed FIB-TEM analysis on 6 sub-micron craters on a Stardust collector foil as we work to better characterize the fine component of comet Wild 2.
- 2:30 p.m. Buchner E. * Hölzel M. Schmieder M. Ferrière L. Koeberl C. Rasser M. Fietzke J. Frische M. Meier M. M. M. Busemann H. Maden C. Kutterolf S.
[*The Meteorite from Steinheim, SW Germany: Probably a Pallasite*](#) [#6055]
The recent find of a metal fragment in a fracture in a limestone block was interpreted to represent a remnant of the Steinheim impactor. Olivine crystals and the Ga, Ge, and PGE concentrations in kamacite suggest the fragment is likely a pallasite.
- 2:45 p.m. Schmidt G. * El Goresy A. Palme H.
[*Extraterrestrial Platinum Group Elements in Impactites and Misleading Ni/Cr, Ni/Co and Cr/Co Element Ratios for Projectile Identification*](#) [#6073]
Os, Ru, Ir, and Rh are abundant in most meteorites but depleted in crustal rocks and therefore most reliable elements for projectile identification. The elements Co, Cr, and Au are not reliable for projectile identification in terrestrial impactites.