

PRINT ONLY: IMPACT CRATERING STUDIES

Burrer B. Povenmire H.

[*A Unique Bicolored Bediasite from Bazos County, Texas*](#) [#1257]

A uniquely bicolored bediasite is described. Generally, bediasites are noted for their homogeneous color and composition. This is a unique specimen as no other similar bediasite has been reported in many thousands of bediasite finds.

McMahon S. Parnell J. Burchell M. Blamey N. J. F.

[*Methane Retention by Rocks Following Simulated Meteorite Impacts: Implications for Mars*](#) [#1040]

A high-velocity impact was simulated in the laboratory and methane-retention in the crater quantified by mass spectrometry. The results are consistent with the possibility that impact events could store methane in the martian crust.

Michel P. Schwartz S. R. Richardson D. C. Machii N. Nakamura A. M.

[*Numerical Simulations of Low-Speed Impact Disruption of Cohesive Aggregates Using the Soft-Sphere Discrete Element Method and Comparison with Experiments on Sintered-Glass-Bead Agglomerates*](#) [#1320]

We show that simulations using an adapted version of the N-body code pkdgrav to model the behavior of cohesive aggregates under various kinds of stresses can reproduce the outcome properties of low-speed impacts on spherical glass bead agglomerates.

Naumov M. V.

[*Sulfide Mineralization in the Kara Impact Structure, Russia*](#) [#1313]

Data on distribution and composition of sulfide mineralization in the 60-km Kara impact structure are given. Both geochemical and isotope data indicate that sulfides in impact melt lithologies arise at the expense of pre-impact sulfides.

Povenmire H. Burrer B. Cornec J. Harris R. S.

[*The Central American Tektites and Strewn Field Update*](#) [#1260]

A description of Central American tektite specimens found in Belize including electron microprobe analysis.

Povenmire H. Doss A.

[*The Second Georgia Tektite Worked Into An Indian Projectile Point*](#) [#1263]

A Cotaco Creek asymmetrical projectile point made from a Georgia tektite found along the Dodge-Bleckley County line in the middle of the Georgia Tektite strewn field.

Salamunićcar G. Lončarić S.

[*Crater Detection from Venus Digital Topography and Comparison with Martian and Lunar Craters*](#) [#1159]

We used a crater detection algorithm (CDA) for detection of craters from Venus digital topography and computation of the depth/diameter ratio. The results were compared with the accompanying results for martian and lunar craters.

Schwartz S. R. Michel P. Richardson D. C.

[*Numerical Simulations of Low-Speed Impact Cratering into Granular Materials Using a High-Performance Parallel Gravity Tree Code Including both the Soft- and Hard- Sphere Discrete Element Methods*](#) [#2533]

We carry out N-body simulations of low-speed impact events into beds of granular material using two different collisional routines. Boundary effects are explored by simulating over a small variety of confinement conditions and particle sizes.

Sjöqvist A. S. L. Lindgren P. Mansfeld J. Sturkell E. F. F. Ormö J. Lee M. R.

[*Carbonate Melt Fragments in Resurge Deposits from the Lockne Impact Structure, Sweden*](#) [#1962]

The loftarstone resurge deposits from the Lockne impact crater in Sweden contain abundant carbonate and silicate melt fragments.

Valter A. A. Maschak M. S.

[*About the Same Geological Age and Possible Simultaneous Formation of Obolon' \(Ukraine\) and Puchezh-Katun' \(Russia\) Impact Structures*](#) [#1080]

Structures have Bajocian ages of primary crater sediments and the K-Ar ages of impact glasses: 168 ± 5 Ma (Obolon') and 167 ± 3 Ma (Puchezh-Katun'). Direction of O elongation coincides with (O)-(P) line. They might be formed by the same projectile.

Vishnevsky S. A.

[*Popigai Astrobleme \(Russia\), Water and Diamond Potential of the Impactites-Tagamites: Data on Gas Chromatography*](#) [#1315]

There are "dry" and "wet" Popigai diamond-bearing impactites-tagamites. The general petrology of the rocks and the data regarding their water amount vs. diamond content are presented with the goal of quest of the rocks with the economic potential of diamond.

Whymark A.

[*Were Australian Tektites Plastically Deformed Prior to Re-Entry?*](#) [#1045]

Australites are oriented, almost without exception. This constitutes evidence that they were plastically deformed during atmospheric exit. Strong evidence exists for proximal and medial tektites being plastically deformed during atmospheric exit.