

Tuesday, July 30, 2013

POSTER SESSION I: SPECIAL SESSION: CHELYABINSK
7:00 p.m. Gallery at Enterprise Square

Gritsevich M. Lyytinen E. Grokhovsky V. Vinnikov V. Kohout T. Lupovka V.
[*Orbit, Trajectory, and Recovery of Chelyabinsk Meteorite*](#) [#5228]

We report derived atmospheric trajectory, corresponding orbit and prediction on the strewn field for Chelyabinsk impact. We compare these results with details and position of over 500 found Chelyabinsk meteorite fragments.

Galimov E. M. Pillinger C. T. Greenwood R. C. Kolotov V. P. Nazarov M. A. Kostitsyn Y. A.
Buikin A. Verchovsky A. B. Kubrakova I. V. Kononkova N. N. Roschina I. A. Alekseev V. A.
Koshkarov L. L. Badyukov D. D. Sevastyanov V. S. Johnson D. Tindle A. G.

[*The Chelyabinsk Fireball and Meteorite: Implications for Asteroid Hazard Assessment*](#) [#5340]

The explosive break-up of the Chelyabinsk fireball was probably facilitated by its pre-entry shock-induced structure. The Chelyabinsk event demonstrates that effective asteroid-hazard mitigation requires structural knowledge of the threatening body.

Bischoff A. Horstmann M. Vollmer C. Heitmann U. Decker S.

[*Chelyabinsk — Not only Another Ordinary LL5 Chondrite, but a Spectacular Chondrite Breccia*](#) [#5171]

The Chelyabinsk chondrite is a breccia having different lithologies mixed together and lithified. Besides the LL5 and impact melt lithologies described earlier, it contains light-colored LL6 lithologies as well as shock-darkened fragments.

Oshtrakh M. I. Grokhovsky V. I. Petrova E. V. Semionkin V. A.

[*The First Results of Mössbauer Study of Chelyabinsk LL5 Meteorite Fragment*](#) [#5011]

This work presents the first results of Mossbauer study of Chelyabinsk LL5 meteorite.

Ignatiev A. V. Velivetskaia T. A. Kiyashko S. I. Grokhovsky V. I.

[*The First Data of Oxygen, Sulfur, and Carbon Isotope Compositions in Meteorite Chelyabinsk*](#) [#5202]

Oxygen, sulfur, and carbon isotope compositions of the Chelyabinsk meteorite were measured in one of the light lithology fragment.

Yakovlev G. A. Grokhovsky V. I.

[*Metal-Sulfide Assemblages in Chelyabinsk LL5 Chondrite*](#) [#5299]

Description of metal and troilite assemblages in light and dark fragments of Chelyabinsk meteorite.

Weinstein I. A. Vokhmintsev A. S. Ishchenko A. V. Grokhovsky V. I.

[*Spectral and Kinetic Features of Thermoluminescence in Chelyabinsk LL5 Chondrite*](#) [#5095]

The natural and induced thermoluminescence, its spectral composition have been studied in Chelyabinsk meteorite chips and powder. The quantitative analysis of the observed processes was carried out in terms of the general-order kinetics formalism.

Grokhovsky V. I. Gladkovsky S. V. Ryzhkov M. A. Ishchenko A. V.

[*Mechanical and Thermal Properties of the Chelyabinsk Meteorite*](#) [#5233]

In this work we represent the mechanical and thermal properties of the recently fall ordinary Chelyabinsk LL5 chondrite.

Kochemasov G. G.

[*The Chelyabinsk Meteorite Hits an Anomalous Zone in the Urals*](#) [#5039]

The Chelyabinsk meteorite is “strange” because it hits an area in the Urals where anomalous events are observed: shining skies, light balls, UFOs, electrphonic bolids. The area tectonically occurs at the intersection of two fold belts: Urals and Timan.