

Wednesday, March 15, 2006

SPECIAL SESSION: BOSUMTWI METEORITE IMPACT CRATER DRILLING PROJECT
8:30 a.m. Amphitheater

Chairs: C. Koeberl
B. Milkereit

- 8:30 a.m. Koeberl C. * Milkereit B. Overpeck J. T. Scholz C. A. Reimold W. U. Amoako P. Y. O. Boamah D. Claey's P. Danuor S. Deutsch A. Hecky R. E. King J. Newsom H. Peck J. Schmitt D. R.
An International and Multidisciplinary Drilling Project into a Young Complex Impact Structure: The 2004 ICDP Bosumtwi Impact Crater, Ghana, Drilling Project — An Overview [#1859]
 First results from the study of two drillcores into the impactite rocks at the Bosumtwi crater, Ghana, obtained within an ICDP project, are summarized.
- 8:45 a.m. Milkereit B. * Ugalde H. Karp T. Scholz C. A. Schmitt D. Danuor S. Artemieva N. Kück J. Qian W. L'Heureux E.
Exploring the Lake Bosumtwi Crater — Geophysical Surveys, Predictions and Drilling Results [#1687]
 Deep drilling of the Bosumtwi impact crater confirmed its gross structure as imaged by seismic surveys. The analysis of sonic and resistivity logs, in conjunction with petrophysical data, revealed that the impactites have extremely high porosities.
- 9:00 a.m. Reimold W. U. * Coney L. Koeberl C. Gibson R. L.
ICDP Borehole LB-07A (Bosumtwi Impact Structure, Ghana): An Overview and First Multidisciplinary Results [#1350]
 As part of the 2004 ICDP drilling of the Bosumtwi impact structure, Ghana, a drillcore through a thick package of impact breccia was obtained within the crater moat. This contribution provides first multidisciplinary (stratigraphic, petrographic, and geochemical) results on these impact breccias.
- 9:15 a.m. Deutsch A. * Heinrich V. Luetke S.
The Lake Bosumtwi Impact Crater Drilling Project (BCDP): Lithological Profile of Wellhole BCDP-8A [#1292]
 Core BCDP-8A into the central uplift of L. Bosumtwi crater consists of carbonaceous greywackes, finely laminated shales/slates (upper greenschist facies; 60% of the core), and allochthonous and autochthonous impact breccias; impact melt lithologies have not been found.
- 9:30 a.m. Coney L. * Reimold W. U. Koeberl C. Gibson R. L.
Mineralogical and Geochemical Investigations of Impact Breccias in the ICDP Borehole LB-07A, Bosumtwi Impact Crater, Ghana [#1279]
 Mineralogical and geochemical studies of the impact breccias and target rocks intersected in borehole LB-07A, Bosumtwi impact structure, Ghana, have been undertaken to characterize the impact breccias and contribute to the understanding of their formation.
- 9:45 a.m. Ferrière L. * Koeberl C. Reimold W. U. Gibson R. L.
First Mineralogical Observations and Chemical Analyses of Core LB-08A from the Central Uplift of the Bosumtwi Impact Structure, Ghana: Comparison with Suevite from Outside the Crater [#1845]
 We present lithostratigraphy, mineralogy, shock petrography, and geochemical analyses of core LB-08A at the Bosumtwi crater, representing the first material from the central uplift. Suevites from this borehole and from outside the crater rim have different petrographic characteristics.
- 10:00 a.m. Morrow J. R. *
Petrographic Characteristics of Quartz in Suevitic Impact Breccia, Drillcore LB07A, Bosumtwi Crater, Ghana [#1258]
 Quartz grain populations in suevitic breccia from the Bosumtwi impact crater drillcore LB07A were examined petrographically to evaluate the occurrence, abundance, and characteristics of unshocked and shock-metamorphosed quartz.

- 10:15 a.m. Luetke S. * Deutsch A. Langenhorst F. Kreher-Hartmann B.
Lake Bosumtwi Impact Structure, Ghana: First Geochemical and Sr Isotope Results for Target Lithologies [#1811]
Carbonaceous greywackes from core BCPD-8A show wide spread in Sr isotopic composition. Whole rock analyses for these, and target rocks from the N crater rim, extend the range of known target lithologies towards Ca- and Al-rich varieties.
- 10:30 a.m. Schleifer N. H. * Elster D. Schell C. M.
Petrophysical Characterization of the Core Samples of the Bosumtwi Meteorite Impact Crater (Ghana) [#1273]
Comparing available log and field data with laboratory measurements on core samples from boreholes B07 and B08, centered in the Bosumtwi Meteorite Impact Crater, the question was, if and how differences in petrophysics relate to specific characteristics of the impact event.
- 10:45 a.m. Kontny A. * Just J.
Magnetic Mineralogy and Rock Magnetic Properties of Impact Breccias and Crystalline Basement Rocks from the BCDP-Drillings 7A and 8A [#1343]
The Bosumtwi crater drilling project provides impact and crystalline basement lithologies. Our study contributes rock magnetic and magnetic mineralogy data of the drilled rocks, which will help to understand the aeromagnetic anomaly pattern.
- 11:00 a.m. Ugalde H. * Danuor S. K. Milkereit B.
A 3D Gravity Model of the Bosumtwi Impact Structure [#1063]
New gravity data was acquired at Lake Bosumtwi between 1999–2001. It allowed the creation of an updated Bouguer gravity anomaly map. A 3D model was constructed from the integration of gravity, petrophysics and seismic data.
- 11:15 a.m. Goderis S. * Tagle R. Claeys Ph. Schmitt R. T. Erzinger J.
Platinum Group Elements in the ICDP Cores from the Bosumtwi Crater, Ghana [#1305]
This abstract presents the results of the platinum group element analyses carried out on the impactites recovered from the two cores recently drilled by ICDP in Lake Bosumtwi. No meteoritic component was detected.
- 11:30 a.m. Koeberl C. * Brandstätter F. Hecht L. Reimold W. U. Peck J. King J.
Uppermost Impact Fallout Layer in a Drillcore at the Bosumtwi Impact Crater (Ghana): A Preliminary Study [#1552]
A fine-grained impact fallout layer was preserved in a drill core from the Bosumtwi crater, with accretionary lapilli, microtektite-like glass spherules, and shocked quartz grains.