

## **BOSUMTWI CRATER EJECTA - NUMERICAL SIMULATIONS**

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The 1 Ma Bosumtwi crater in Ghana is 10.5-km diameter complex well-preserved impact structure. This crater is associated with the Ivory Coast tektite strewn field (300 km west from the crater) on the basis of similarities in chemical and isotopic composition and identical ages for tektites and crater glasses. Lithology at and around Lake Bosumtwi is dominated by metagraywackes and metasandstones. Numerous breccia exposures have been mapped around the crater in the past, but their impact origin is yet open to question. Numerical modeling of the impact, based on the real projectile and target lithology, seems to be a helpful approach that allows to study crater formation and impact ejecta deposition. We use multimaterial multidimensional SOVA hydrocode, which also includes description of dust particles motion in the gas flow, to model an initial stage (contact, compression and excavation) of the crater growth after an oblique impact of 1-km in diameter asteroid into the surface. Variations of the incident angle as well as initial velocity of the impactor are considered. The possibilities of particles transportation at the distances of several hundreds of kilometers from the impact site are discussed.