

Meteorite Name: **Mbale**  
 Country: Uganda  
 State/District:  
 Co-ordinates: 1°04'N, 34°10'E  
 Date of fall : 1992, August 14 (1540hrs)  
 Total known weight: 150kg (approx.)  
 Number of pieces: 863

## Classification:

Type: **Stone L5/6**  
 Ordinary chondrite  
 Remarks: shocked, veined  
 Mineral Olivine Fa25.4  
 Analyses: Pyroxene Fs21.8

Pairings: *not known*Synonyms: *not known*

## Description and references:

The fall occurred in a heavily populated area in and around the city of Mbale. A loud explosion was heard which persisted for some time as a rumbling noise. For about two minutes a greyish-white smoke trail was seen. A meteorite shower fell over an area of about 3 x 7 km. The stones hit several buildings, but nobody was hurt. An expedition was organized by the Dutch Meteor Society, the Leiden Observatory, and Makerere University between August 29 and September 5; it located 48 impact positions of masses between 27.4kg and 0.1g. Together with material found in the month after the fall, 426 stones were recovered with a total mass of 108kg, Met. Bull. 75, Meteoritics, 1993, 28, p.694. Classification and analysis, olivine Fa25.4, pyroxene Fs21.8, A.El Goresy, Max-Planck-Institut für Kernphysik, Heidelberg, Germany. Detailed description, fall circumstances, mineralogy, chemical analysis, short-lived radionuclide data and orbital elements; 863 pieces totalling 150kg in weight have been discovered, P.Jenniskens et al., Meteoritics, 1994, 29, p.246. Study of unusual, chromite-rich, Cr-spinel-rich, and silica-rich chondrules, B.R.Marsh and C.B.Moore, Meteoritics, 1994, 29, p.496 (abs.). Noble gas data and exposure ages, K.M.Suthar et al., LPSC, 1995, 26, p.1379 (abs.). Study of shock-induced transformation exsolution lamellae in olivine from shock veins, M.Chen et al., Meteoritics, 1995, 30, p.497 (abs.).

Repositories of specimens:

main mass: Leiden, Geol. Min. Mus.  
12kg: Glarus, Swiss Meteorite Lab.  
1067g: Kankakee, Illinois, J.Schwade Colln.  
284g: Zürich, J.Nauber Colln.  
255g: Paris, A.Carion Colln.  
122g: Berlin, Mus. Naturk., Humboldt Univ.  
114g: Grenchen, T.Stuedi Colln.  
61g: Gloggnitz, Franger Colln.  
60g: Colorado Springs, Tiara Observatory  
54g: Hanau, Zeitschel Colln.  
40g: Violau, Volkssternwarte  
33.9g: Oeschgen, Beat Booz Colln.  
30.6g: Stade, A.Seidel Colln.  
22g: Villiers, Guibert Colln.  
14g: Buenos Aires, Asoc. H. Pampa  
3.4g: New York, Amer. Mus. Nat. Hist.  
1g: Machecoul, Guibert Colln.  
specimens: Kampala, Makerere Univ.  
specimens: Leiden, Dutch Meteor Society

Repositories of prepared sections:

Heidelberg, Max-Planck-Inst. (IPTS)