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Search text:

Data for a specific record:

| <h2>Carancas</h2> | |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Basic information | <p>Name: Carancas This is an OFFICIAL meteorite name. Abbreviation: There is no official abbreviation for this meteorite. Observed fall: Yes Year fell: 2007 Country: Peru Mass: ? 342 g</p> |
| Classification history: | <p>Meteoritical Bulletin: MB 93 (2008) H4-5 Recommended: H4-5 [explanation]</p> <p>This is 1 of 42 approved meteorites classified as H4-5. [show all] Search for other: H chondrites (type 4-7), Ordinary chondrites (type 4-7), H chondrites, and Ordinary chondrites</p> |
| Comments: | <p>Approved 7 Jan 2008 Revised 4 Aug 2008: final writeup; 2008-01-17 fix error in 170</p> |
| Writeup ? | <p>Writeup from MB 93:</p> <div style="border: 1px solid black; padding: 5px;"> <p>Carancas 16°39'52"S, 69°02'38"W Carancas, Chucuito, Puno, Peru Fall: 15 September 2007, ~16: 45 UTC Ordinary chondrite (H4-5)</p> <p>History: A large fireball was witnessed to impact near the community of Carancas, in the province of Chucuito, region of Puno in the country of Peru. It made a sizable impact crater, ~13.8 m in diameter (<i>INGEMMET</i>) or 11-12 m (L. Jackson, <i>CGS</i>). Local residents and many others have recovered numerous pieces of the impactor from the sides of the crater and the surrounding area. Mike Farmer brought several samples to the Lunar and Planetary Laboratory of the <i>UAz</i> for classification on October 5, 2007. The total mass is currently unknown. A preliminary report was published on the web by F. Luisa Macedo and O. José Macharé of <i>INGEMMET</i>, Peru.</p> <p>Physical characteristics: Most specimens are without fusion crust and have a gray color with some metal and chondrules visible, although the chondrules are not easily observed. At least one specimen had two different lithologies, the second white in color, indicating it is a breccia. Numerous black shock veins, often on more than one face of a specimen, were observed. At least one large (~2 cm) metal grain was also recovered, with a thin layer of stone attached to it.</p> </div> |

Petrography: (H. Connolly, *KCCU, UAz*; D. Hill, *UAz*, D. Schrader, *UAz*, K. Domanik, *UAz*, and D. Lauretta, *UAz*). One polished butt and one thin section, of two different samples, were examined. The polished butt contains some relict chondrules with well-defined margins and many textural types present. The thin section shows the rock to have experienced extensive recrystallization of the matrix with few relict chondrules present. Relict chondrules range in size from ~170 μm to 1 mm. Olivine and orthopyroxene were observed with abundant Fe, Ni-metal and Fe-rich sulfide.

Mineral compositions: Olivine ($\text{Fa}_{18.4\pm 0.5}$) and pyroxene ($\text{Fs}_{16.1\pm 0.2}$). Oxygen isotopes: (R. Greenwood, *OU*; two analyses) $\delta^{17}\text{O} = 3.017, 2.942$; $\delta^{18}\text{O} = 4.519, 4.344$; $\Delta^{17}\text{O} = 0.667, 0.683$ (all ‰).

Classification: Ordinary chondrite (H4-5); W0, S3.

Type specimens: A total of 22 g, including 5 thin sections, are on deposit at *UAz*. *Farmer* holds 320 g.

Submitted by: Harold C. Connolly Jr., *KCCU* and *UAz*.

Data from:
[MB93](#)
Table 3
Line 23:

State/Prov/County: Carancas, Chucuito, Puno, Peru
Origin or pseudonym: Village area
Date: 15-Sept-07
Latitude: 16°39'52"S
Longitude: 69°02'38"W
Mass (g): Metric tons?
Pieces: Many
Class: H4-5
Type spec mass (g): 22

Institutions and collections

Farmer: Michael Farmer, P.O. Box 86059, Tucson, AZ 85754-6059, USA; [Website](#) (private address)
KCCU: Kingsborough College of the City University of New York, Brooklyn, NY 11235, USA (institutional address)
OU: Planetary and Space Sciences Research Institute, The Open University, Milton Keynes, MK7 6AA, UK (institutional address)
UAz: Lunar and Planetary Laboratory, University of Arizona, 1629 E. University Blvd., Tucson, AZ 85721, USA (institutional address)

Catalogs:

Search for specimens in the Smithsonian Institution collection (U.S.):



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photo

References:

Published in [Meteoritical Bulletin, no. 93, MAPS 43, 571-632 \(2008\)](#)

Find references in NASA ADS:


















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Geography:



Coordinates:

Recommended:: (16° 39' 52"S, 69° 2' 38"W)

Statistics:

This is the only approved meteorite from [Puno, Peru](#)

This is 1 of 3 approved meteorites from [Peru](#)

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Synonyms:

Desaguadero (Assigned by nomenclature committee)

Revision history:

[Revision history](#) This lists important revisions made to data for this record.

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