THE FUHE CHONDRITE.

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In June 1945, a stone fell into the backyard of a farmer, who lived in Dongjiagang village, Fuhe town, Suizhou city, Hubei province of China. The stone was left in the yard for many years and later mounted on a wall. The grandson of the finder noticed the unusual character of the stone and brought it to us for identification in 2010. It weighs 23 kg and has a rusty surface (Fig. 1). The recovery site of Fuhe is just 30 km away from that of Suizhou, an L6 chondrite which fell on April 15, 1986.

The fusion crust of Fuhe is almost completely weathered. The outer part (2-3 cm) of the stone is also altered, but the interior is relatively fresh (Fig. 2). Fuhe is an L5 chondrite [1]. The major phases are olivine (Fa=24.2，PMD=1%) and low-Ca pyroxene (Fs=22.1，PMD=5%). Various sizes (200 ~ 1500 μm) of chondrules (mainly BO) are present. Most chondrules and mineral grains have experienced severe recrystallization due to thermal metamorphsim. Large crystal of plagioclase (up to 200 μm in length) occurs in the matrix. It often encloses rounded grains of olivine, pyroxene, FeNi, and chromite. Fine-grained (μm) euhedral to sub-euhedral chromite aggregates are also set in plagioclase grains. Impact-induced melt veins (hundreds of μm in length) and pockets (~ 100 μm) are present. However, high-pressure phases were not identified in these areas. Plagioclase did not convert to maskelynite.

References: [1] Li S. and Hsu W. 2014. Submitted to *Chinese Astronomy and Astrophysics*.

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Fig. 1 The Fuhe chondrite

Fig. 2 A cross section of Fuhe