Bagdad (Arizona, U.S.A.)

17. II. 7. Iron with interesting aerodynamic shape and fusion zone around edge. Polished and etched face has area of 5 × 7.5 cm. Very interesting oct structure. Kam bands range in size from 0.8 - 0.5 (Om) but also on down to ~0.05 mm, as plessite is banded with bands decreasing in width from edge to center. No inclusions are observed. Oxidation is negligible. Does it resemble Madoc?

1 VII 67. 11 g sample from ASU, 4 flat faces, ~5 cm², pol'd + etched 60 sec. Structure slightly coarser (determined on absolutely oriented bands!) 0.6 - 1.0 mm, still Om. Many irregular lines spaced about each 0.5 mm cross ham - probably incipient shock or reheating. Large amounts of plessite, almost entirely banded, - width very but tend to be relatively constant in a given field. - 55 ± 10% of area is plessite. Light oxidation near crust and along single narrow crack. Rare, very small (0.1 mm Ø) schreib, no other inclusions. Prob.

Balfour Downs (W. Australia, Australia)

11 Nov. 60 Irreg sample with 2 adj polished surfaces 2 × 3 + 1.5 × 1 cm, from AMNH. Polished + etched 30 sec in 40°C nital. Kam. bands are quite distinct, a bit irregular, ~0.9–1.1 mm wide, Om–Og. There is thin dark plessite between most bands, and an occasional plessite field (10% of area) which is large + filled with microWid. structure. A few tiny schreib. inclusions are seen, but photo of USNM specimen shows one large inclusion surrounded by swathing kamacite. No oxidation, no other inclusions, sample has very fresh appearance.

Ballinoo (Western Aust., Australia)

7. Jan 67 Sample weighing 20 g from CNHM. Crust on 50% of surface, very fresh looking. Surface polished and etched. ~ 40 sec. Very odd structure. Many very small inclusions, seem to be schreib., ranging from as dots 0.03 mm across to spindles 2 mm x 0.05 mm. The surface shows a "micro" Wid. structure in reflected light. However. the boundaries of the kam spindles are very indistinct. The many schreib inclusions are always in kam, with the kam being as wide as 0.02 mm side to side, including schr. nucleus. No other inclusions are observed, and no weathering cracks. Perry shows one photo of B. on p. 139, but gives little description. There is a heated zone next to crust, in which schreib is black and diffuse after the etch. (Repol'd, etched 20 sec, 9 Mar 67) The photo I have of B. in USNM resembles B very much, but no Santa Rosa 1155 doesn't have the rhabdites (apparently)

Bakaar (IN 1587) 9 June 97

Regular Widmanstätten structure, cut almost parallel to {111}

Bandwidth: ~0.9mm (corrected)

Plessite: mainly comb type, plus some acicular plessite (up to 5 × 4.5 mm parallelogram-shaped)

Taenite: 20 – 200 μ wide

Schreibersite: 0.2 × 4.5 mm Brezina lamellae + equant grains grain boundary precipitates rhabdites (few?, often plucked out / poor polish)

Shock: no Neuman bands observed

Baquedano (Antofagasta ~~Atacama~~, Chile)

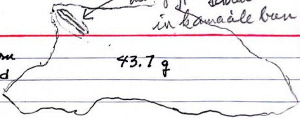
25. VIII. 67. Large sample from Harward. Small piece removed, polished and etched 30 deg nitric on 2 faces, ~@ 3 cm² total. Palache & Gonyer give 8.8% Ni. Very distinct, irreg structure. Some lamellar kam. – sample broke at one lamellae. Kam bands difficult to orient, seem to be 0.8 - 1.1 mm, Om-Og. Schreib. along grain bound may be less plentiful than in Sierra Gandon. Plessite is light gray & banded for most part, but sometimes has a few bars of Widmanstätten-kam lamellae. Kam bands show several sets of Neumann lines, which are not seen in S.S. Would guess that this iron is nearer to IIIA than is S.S. Weathering is light, confined to crust and one crack along a schreib lamellae.

30 Jul 2011

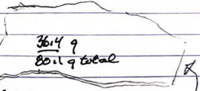
Barcus

bandwidth ~0.24±0.05 mm, thus Of

We received two pieces removed from a spot where one small piece had earlier been cut off. No further cutting has occurred.



Sample as been recrystallized to produce 0.2 x 0.04 kamacite grains in many plessite fields. Borders of kamacite bands are ragged, not straight, best seen by making thin taenite reflect.



Schreibersite is present in centers of many bands, mostly reaching sizes of 0.2-0.5 long by 0.05-0.1 thick.

One hieroglyphic schreib. in NW is 2 mm thick by 16 mm long. It is sandwiched in a swathing kamacite ban that reaches a thickness of 6 mm across (including the schr. hotdog). Sw. kam. recrystallized with some tiny taenites (or schr.)

Weathering moderate, but confined to surface and near surface. ✓ No FeS recognized

No heat-altered zone.

Barbacena

IN 918

Ope ~10.5% Ni } VFB
Ouro Preto Brazil
61, 2.9 kg
highly oxidized
Could be Ituturinga

Wt of sample received : 3.11 g. from K. Keil (NM

long kamacite bands thru a plessitic matrix. Some bands approx 1cm long. Most bands contain .1 mm sized schreibersite particles. 1 schreibersite grain appear to have a chromite inclusion. Schreibersite is not located along grain boundaries but in centers of bands. Similar to other members of group IIC but with more kamacite. ANOM

Ni ~ 9.5% BW = 0.12mm no oxidation present

INAA (1) May 26, 1977 (2) 20 IV 78

~~RNAA~~ (1) 28 IV 78