

(Found : C, 69.39, H, 4.94; OCH<sub>3</sub>, 29.79; C<sub>36</sub>H<sub>30</sub>O<sub>10</sub> requires C, 69.45; H, 4.86; and OCH<sub>3</sub>, 29.90%), M<sup>+</sup> 622, m.p. 174–75°, (α)<sub>D</sub> – 73.2°, yield : 50 mg. ν (nujol) : 2830 (OCH<sub>3</sub>), 1640 (flavone carbonyl) and 1600 and 1590 (aromatic) cm<sup>-1</sup>.

The benzene : chloroform mixture (1 : 1) eluate gave a complex mixture (more than six spots) which could not be separated into its individual components.

Compound A exhibited an orange-red colour with Mg HCl and a negative test with sodium borohydride and HCl indicating its flavone character. It was found to be identical with that of (–) amentoflavone hexamethyl ether<sup>6,6</sup> (V) (m.m.p., I.R., <sup>1</sup>HMR and Mass). This identification unambiguously proves the structure of semecarpus biflavanone B (II) and the nature of C–C linkage as assigned by Row *et al.*<sup>1</sup>.

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## A NEW OCCURRENCE OF PYRRHOTITE AND PENTLANDITE IN THE MINERAL CEMENT OF TERTIARY GRAVELS NEAR PATHERGHARA, SINGHBHUM, BIHAR

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EXAMINATION of tertiary gravels (22° 33' : 86° 25') under reflected light reveals the occurrence of pyrrhotite (FeNi)S associated with a small amount of pentlandite (NiS).

Pyrrhotite occurs in the form of rims around the grain boundaries of quartz and feldspar. Rims are

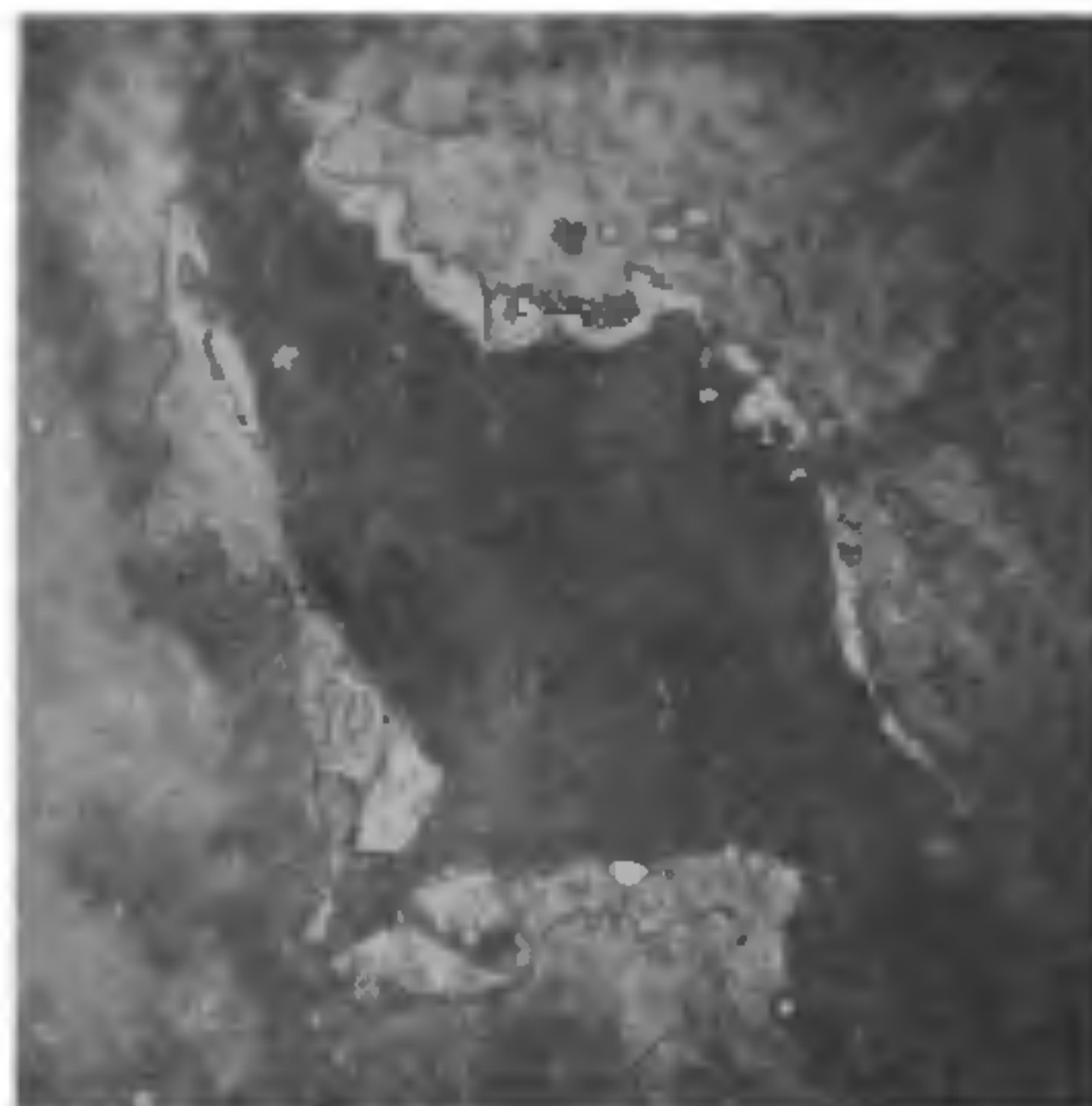


FIG. 1. Showing the enrichment of pentlandite (pt) along the boundaries of pyrrhotite (po) and quartz (Qtz), × 75.

complete and broken too. Thickness of these rims is erratic and varies from 0.1 to 0.06 mm in diameter. Individually the grains are of 0.01 mm diameter.

Pentlandite is seen closely associated with pyrrhotite as flames and dots. Rounded to oval shaped grains of pentlandite have been observed irregularly dusted through 0001 metal planes of pyrrhotite which are present for the most part in considerable excess. It is interesting to note that a large number of pentlandite grains have been enriched along quartz and pyrrhotite boundaries (Fig 1). This texture might have resulted from the diffusion of nickel rich pyrrhotite at low temperature<sup>1</sup>.

According to Dunn and Dey<sup>2</sup> the gravel beds were believed to have been derived from the local Archean rocks. In the light of field, petrographical and trace element examinations of certain neighbouring rocks of the area, the author suggests that epidiorite which contains about 45–425 ppm nickel associated with Dhanjori quartzite might have been a specific source of gravels as of today.

Detailed chemical and x-ray analyses are in progress.

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