

On Isopyre, a new Mineral Species. By W. HAIDINGER, Esq.
F. R. S. E.

From the Edinburgh New Philosophical Journal for October 1827.

1. *Description.*—REGULAR forms not observed. Very pure masses of considerable size, often nearly two inches in every direction, occur imbedded in granite.

Cleavage none. Fracture conchoidal; highly perfect, where the mineral is pure; of lower degrees of perfection, where there are foreign admixtures in it.

Lustre vitreous, often considerable. Colour greyish-black and velvet black, occasionally dotted with red, as in the heliotrope. Streak pale greenish-grey.

Opake, or very faintly translucent on the thinnest edges, with a dark liver-brown tint.

Brittle. Slight action on the magnetic needle.

Hardness =5.5...6.0. Specific gravity =2.912.

2. *Observations.*—Several specimens of the species of Isopyre are preserved in the cabinet of Mr Allan. Some of them are quite pure, and have no rock attached to them; others are imbedded in a kind of granite, chiefly consisting of quartz, crystals of which often penetrate the dark coloured mass of the isopyre; Some of the specimens were procured by Mr Allan three years ago, on a journey through Cornwall, in which I had the pleasure of accompanying him, from a miner in St Just; others were given to Mr Allan by Mr Joseph Carne of Penzance, whose collection of minerals is particularly rich in the products of the western districts of Cornwall. The west of Cornwall is certainly the native country of the isopyre, but I am unable at present more accurately to indicate its locality, as I then considered the substance actually to be, what it was called, *black opal*, and, as such, much less interesting than it proved on

Geol.B.-A. Wien



0 000001 557671

K. K. GEOLOGISCHES MUSEUM

more attentive examination, and omitted to take a note of the exact locality.

The resemblance of the isopyre to obsidian, or to what might be supposed to be the appearance of opal, when of a black colour, is very considerable; only the lustre of isopyre is less bright and glassy than that of obsidian. It is also very much like certain varieties of iron slag, and in fact it would be difficult to suspect the mineral not to be a product of the same kind of fusion which we are capable of producing in our own furnaces, if it were not associated with crystals of quartz, or did not contain, as in one of Mr Allan's specimens, small imbedded crystals of tin-ore and of tourmaline. In allusion to this appearance, and also on account of the perfect similarity of a globule melted before the blowpipe, with the fragment employed in the experiment, I propose the trivial name of *Isopyre*, for designating the mineral, from ἴσος equal, and πῦρ fire. The similarity of properties is even preserved in regard to magnetism, the globule obtained by exposing a fragment of the mineral to the blast of the blowpipe being magnetic, as well as the fragment itself, and even in a higher degree.

From the description given * of the Tachylite of Breithaupt, this mineral should much resemble the isopyre. Its specific gravity is much lower, being only 2.5...2.54, so as to preclude the possibility of their belonging to the same species. It occurs in basalt and wacke at Sæsebuehl, near Göttingen, likewise only massive.

* Leonhard, 2d edit. p. 781.