

In crystals, globular, botryoidal, reniform, having a radiating columnar or fibrous structure; massive; pseudomorphous after calcite, fluor, pyrite, stephanite, proustite, disseminated; earthy.

Is not so abundant as pyrites, and is not found in the older rocks. It frequently accompanies pit coal and brown coal; occurs in sandstone, marl, chalk, beds of clay, and in peat. Is found in Saxony near Freiberg, Memmendorf in Bohemia; at Johann-Georgenstadt, Joachimsthal, Littnitz and Altsattel near Töplitz, Przibram; Almerode in Hessa; in the Harz at Clausthal, Zellerfeld, Iberg; Condé in France; Cornwall; Derbyshire.

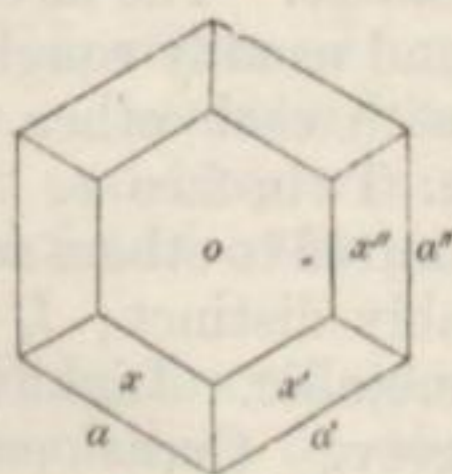
61. MOLYBDENITE.—Sulphuret of molybdena; Phillips. Molybdene; Hauy. Dirhombödrischer Eutom-Glanz; Mohs. Molybdänglanz; Hausmann. Molybdänit; Haidinger.

Rhombohedral.

$o$  111,  $a$  01 $\bar{1}$ ,  $b$  2 $\bar{1}\bar{1}$ ,  $x$  120.

$ao$	$90^\circ$	$0'$
$aa'$	60	0
$ba'$	30	0

FIG. 169.



Combinations.  $oa$ ,  $ax$ . The faces  $o$  smooth;  $x$ ,  $a$  striated parallel to their intersections with  $o$ . Cleavage.  $o$ , very perfect. Opaque. Lustre metallic. Lead-grey. Streak the same on paper; on porcelain greenish-grey. In thin leaves very flexible. Very sectile.  $H = 1.0 \dots 1.5$ .  $G = 4.5 \dots 4.6$ .

Before the blowpipe in the forceps imparts a green colour to the flame; on charcoal sulphurous acid is disengaged, and a white sublimate is deposited upon the charcoal. In the inner flame imparts a brown colour to a mixture of borax and nitre. In powder is decomposed by nitric acid, leaving a residue of molybdic acid. With hot nitromuriatic acid forms a greenish solution; with boiling sulphuric acid a blue solution.

$MoS^2$ , molybdenum 58.92, sulphur 41.08.

Analyses of molybdenite  $a$  from Altenberg by Brandes,  $b$  from Chester in Pennsylvania by Seybert,  $c$ ,  $d$ ,  $e$  from Lindas in Smaland,  $f$  from Bohuslän by Svanberg and Struve:—

	$a$	$b$	$c$	$d$	$e$	$f$
Molybdenum . . . . .	59.6	59.42	59.07	59.10	59.13	59.01
Sulphur . . . . .	40.4	39.68	40.93	40.90	40.87	40.99