

J. H. 1825.

TREATISE
ON
MINERALOGY,
OR THE
NATURAL HISTORY OF THE MINERAL KINGDOM.

BY
FREDERICK MOHS,

PROFESSOR IN THE MINING ACADEMY OF FREIBERG.

Translated from the German, with considerable Additions,

BY
WILLIAM HAIDINGER, F.R.S.E.

VOL. I.



EDINBURGH:

**PRINTED FOR ARCHIBALD CONSTABLE AND CO. EDINBURGH ;
AND HURST, ROBINSON, AND CO. LONDON.**

1825.

659

CHARACTERS
OF THE
GENERA AND SPECIES
OF THE
ORDERS OF CLASS II.

I. ORDER. HALOIDE.

I. GYPSUM-HALOIDE. Prismatic.

$$H. = 1.5 \dots 3.5.$$

$$G. = 2.2 \dots 3.0.$$

G. above 2.5: cleavage in three directions, perpendicular to each other, one of them being less distinct.

1. PRISMATOIDAL. Hemi-prismatic. $\frac{P}{2} = 143^\circ 52'$. Inclination = $9^\circ 11'$.

Cleavage, $\text{Pr} + \infty$, perfect and eminent. — $\frac{\text{Pr}}{2} = 66^\circ$

$$52'. \text{Pr} + \infty.$$

$$H. = 1.5 \dots 2.0.$$

$$G. = 2.2 \dots 2.4.$$

Gypsum.

ii. 57.

2. PRISMATIC. Prismatic. $P = 121^\circ 32', 108^\circ 35', 99^\circ 7'$.

Cleavage, $\text{Pr} + \infty$. $\text{Pr} + \infty$. Less distinct, $P - \infty$.

Traces of $P + \infty = 100^\circ 8'$.

H. = 3.0 ... 3.5.

G. = 2.7 ... 3.0.

Anhydrite.

ii. 62.

II. CRYONE-HALOIDE. Prismatic.

Cleavage in three directions, perpendicular to each other, one of them being more distinct.

H. = 2.5 ... 3.0.

G. = 2.9 ... 3.0.

1. PRISMATIC. Prismatic.

Cleavage, $P - \infty$. Less distinct, $\text{Pr} + \infty$. $\text{Pr} + \infty$

Traces of P.

Cryolite.

ii. 66.

III. ALUM-HALOIDE. Rhombohedral.

H. = 5.0.

G. = 2.5 ... 2.8.

1. RHOMBOHEDRAL. Rhombohedral. $R = 92^\circ 50'$.

Cleavage, $R - \infty$. Less distinct, R.

Rhomboidal Alumstone. J.

ii. 67.

IV. FLUOR-HALOIDE. Tessular, rhombohedral.

H. = 4.0 ... 5.0.

G. = 3.0 ... 3.3.

Rhombohedral: cleavage peritomous.

1. OCTAHEDRAL. Tessular.

Cleavage, octahedron.

H. = 4.0.

G. = 3.0 ... 3.3.

Fluor.

ii. 69.

2. RHOMBOHEDRAL. Di-rhombohedral. $P = 142^\circ 20'$,
 $80^\circ 25'$. $(P + n)^m$ hemi-di-rhombohedral with parallel faces.

Cleavage, R $\rightarrow \infty$. $P + \overline{\infty}$.

H. = 5.0.

G. = 3.0 ... 3.3.

Apatite.

ii. 73.

V. LIME-HALOIDE. Rhombohedral, prismatic.

Cleavage, rhombohedral and paratomous, or prismatic.

H. = 3.0 ... 4.5.

G. = 2.5 ... 3.2.

H. above 4.0 : G. = 2.8 and more.

G. = 2.9 and more : H. = 3.5 and more.

1. PRISMATIC. Prismatic. $P = 112^\circ 39'$, $93^\circ 33'$, $123^\circ 34'$.

Cleavage, Pr - 1 = $108^\circ 8'$. $(Pr + \infty)^2 = 63^\circ 44'$,

More distinct Pr + ∞ .

H. = 3.5 ... 4.0.

G. = 2.6 ... 3.0.

Arragonite.

ii. 79,

2. RHOMBOHEDRAL. Rhombohedral. $R = 105^\circ 5'$.

Cleavage, R.

H. = 3.0.

G. = 2.5 ... 2.8.

Rhomboidal Limestone. J.

ii. 83.

3. MACROTYPUS. Rhombohedral. $R = 106^\circ 15'$.

Cleavage, R.

H. = 3.5 ... 4.0.

G. = 2.8 ... 2.95.

Dolomite.

ii. 93.

4. BRACHYTYPUS. Rhombohedral. $R = 107^\circ 22'$.

Cleavage, R.

H. = 4.0 ... 4.5.

G. = 3.0 ... 3.2.

Brunnerite.

ii. 98.

4. PARATOMOUS. Rhombohedral. R = 106° 12'.

Cleavage, R.

H. = 3.5 ... 4.0.

G. = 2.95 ... 3.1.

Ankerite.

ii. 100.

Childrenite ?

iii. 85.

Fluellite.

iii. 101.

Hopelite.

iii. 109.

Magnesite.

iii. 121.

Pharmacolite ?

iii. 135.

Roselite.

iii. 147.

Wavellite.

iii. 169.

II. ORDER. BARYTE.

I. PARACHROSE-BARYTE. Rhombohedral.

Cleavage paratombus.

H. = 3.5 ... 4.5.

G. = 3.3 ... 3.9.

1. BRACHYTYPUS. Rhombohedral. R = 107° 0'.

Cleavage, R.

H. = 3.5 ... 4.5.

G. = 3.6 ... 3.9.

Rhomboidal Sparry Iron. J.

ii. 101.

2. MACROTYPUS. Rhombohedral. R = 106° 51'.

Cleavage, R.

H. = 3.5.

G. = 3.3 ... 3.6.

Rhomboidal Red Manganese. J.

ii. 106.