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.

IV. Order. MALACHITE.

I. Staphyline-Malachite. Amorphous.

H. = 2·0 ... 3·0.
G. = 2·0 ... 2·2.

Uncleavable. Cleavage none.
Fracture conchoidal.
Chrysocolla. ii. 158.

II. Liroconе-Malachite. Tessular, prismatic.

H. = 2·0 ... 2·5.
G. = 2·8 ... 3·0.

1. Prismatic. Prismatic.
Cleavage, Pr = 71° 59′. P + ∞ = 119° 45′ imperfect.
Streak pale verdigris-green ... sky-blue.
H. = 2·0 ... 2·5.
G. = 2·8 ... 3·0.
Prismatic Liriconite. J. ii. 160.

2. Hexahedral. Semi-tessular with inclined faces.
Cleavage, hexahedron, imperfect.
Streak pale olive-green ... brown.
H. = 2·5.
G. = 2·9 ... 3·0.
Hexahedral Liriconite. J. ii. 162.

III. Olive-Malachite. Prismatic.

Colour or streak neither blue nor bright green.

H. = 3·0 ... 4·0.
G. = 3·6 ... 4·6.

1. Prismatic. Prismatic.
Cleavage, Pr = 110° 50′. P + ∞ = 92° 30′. Both very indistinct.
Streak olive-green ... brown.

H. = 3·0.
G. = 4·2 ... 4·6.
Prismatic or Acicular Olivenite. J. ii. 164.

2. DI-PRISMATIC. Prismatic. $\breve{P}r = 111° 58'$. $P + \infty = 95° 2'$.
Cleavage, $\breve{P}r + \infty$. $\breve{P}r + \infty$. Both very indistinct.
Streak olive-green.
H. = 4·0.
G. = 3·6 ... 3·8.
Di-prismatic Olivenite. J. ii. 166.

IV. AZURE-MALACHITE. Prismatic.

Colour blue.
H. = 3·5 ... 4·0.
G. = 3·7 ... 3·9.

1. PRISMATIC. Hemi-prismatic. $\frac{\breve{P}}{2} = 117° 37'$. Inclination = 2° 21′.
Cleavage, $(\breve{P}r + \infty)^s = 59° 14'$. Less distinct, $P - \infty$.
Traces of $\breve{P}r = 99° 32'$.
Streak blue.
Prismatic Blue Malachite. J. ii. 167.

V. EMERALD-MALACHITE. Rhombohedral.

H. = 5·0.
G. = 3·2 ... 3·4.

1. RHOMBOHEDRAL. Rhombohedral. $R + 1 = 95° 48'$.
Cleavage, R = 126° 17′.
Streak green.
Dioptase. ii. 171.

VI. HABRONEME-MALACHITE. Prismatic.

Colour or streak bright green.

H. = 3·5 ... 5·0.
G. = 3·6 ... 4·3.

1. PRISMATIC. Hemi-prismatic. $(\breve{P}r + \infty)^a = 38° 56'$.
Cleavage, traces of $-\frac{\breve{P}r - 1}{2}$ and $\breve{P}r + \infty$.
Streak emerald-green.
H. = 5·0.
G. = 4·0 ... 4·3.
Prismatic Green Malachite. J. ii. 173.

2. HEMI-PRISMATIC. Hemi-prismatic. $\frac{\breve{P}}{2} = 139° 17'$.
Inclination = 0. $P + \infty = 103° 42'$.
Cleavage, $-\frac{\breve{P}r}{2} = 61° 49'$, and $\breve{P}r + \infty$ highly perfect.
Streak grass-green, apple-green.
H. = 3·5 ... 4·0.
G. = 3·6 ... 4·05.
Common Malachite. J. ii. 175.

Atacamite. iii. 74.
Brochantite. iii. 81.
Euchroite. iii. 94.
Green Iron-Earth? WERNER. iii. 106.
Radiated Acicular Olivenite. J. iii. 144.
Scorodite? iii. 149.
Vauquelinite? iii. 167.
Velvet-Blue Copper? J. iii. 168.

V. ORDER. MICA.

I. EUCHLORE-MICA. Rhombohedral, pyramidal, prismatic.