

Crystal Data: Orthorhombic. *Point Group:* $2/m\ 2/m\ 2/m$. Rare as prismatic crystals, elongated along [010], to 5 mm; commonly massive, granular, radial, fibrous. *Twinning:* On {101}.

Physical Properties: *Cleavage:* {101}, distinct. Hardness = 5.5–6 VHN = 630–758 (100 g load). D(meas.) = 7.1(1) D(calc.) = 7.091

Optical Properties: Opaque. *Color:* Tin-white with a faint pinkish hue; in polished section, pure white. *Streak:* Grayish black. *Luster:* Metallic. *Pleochroism:* Weak, in yellow to pinkish hue and bluish white. *Anisotropism:* Strong, especially in blues.

R₁–R₂: (400) 56.1–59.8, (420) 56.6–60.2, (440) 56.8–61.0, (460) 56.6–61.1, (480) 56.1–60.9, (500) 56.2–60.8, (520) 56.5–60.8, (540) 56.8–60.9, (560) 57.0–60.9, (580) 57.0–60.9, (600) 56.9–60.6, (620) 56.8–60.1, (640) 56.6–59.6, (660) 56.4–58.9, (680) 56.6–58.5, (700) 56.7–58.0

Cell Data: *Space Group:* $Pn\bar{m}$ (synthetic). $a = 4.7582(7)$ $b = 5.7949(8)$ $c = 3.5440(4)$ Z = 2

X-ray Powder Pattern: Synthetic (nearly identical to ferroselite). 2.552 (100), 2.476 (90), 2.843 (65), 1.870 (55), 1.696 (30), 1.771 (25), 1.790 (20)

Chemistry:	(1)	(2)	(3)
Ni	27.84	28.6	28.15
Co	1.80	0.5	
Fe	trace	0.1	
As	67.32	71.0	71.85
Sb	0.83		
S	2.03	0.4	
Total	99.82	100.6	100.00

(1) University mine, Cobalt, Canada. (2) Coniston mines, England; by electron microprobe.

(3) NiAs₂.

Polymorphism & Series: Trimorphous with pararammelsbergite and krutovite.

Mineral Group: Löllingite group.

Occurrence: In hydrothermal veins formed at medium temperatures with other Ni–Co minerals.

Association: Skutterudite, safflorite, löllingite, nickeline, bismuth, silver, algodonite, domeykite, uraninite.

Distribution: In Germany, at Schneeberg, Saxony [TL]; at Eisleben and Mansfeld, Saxony-Anhalt; from Bieber, near Hanau, Hesse. In the Lölling-Hüttenberg district, Carinthia, Austria. From the Polkovic copper mine, near Legnica, Zechstein copper district, Lower Silesia, Poland. In France, at Sainte-Marie-aux-Mines, Haut-Rhin. From the Coniston mines, Cumbria, England. In the Leadhills-Wanlockhead district, Dumfries, Scotland. At the Sedmochislenitsi mine, Vratsa district, western part of the Stara Planina (Balkan Mountains), Bulgaria. From Lainijaur, Västerbotten, Sweden. Large crystals at Bou Azzer, Morocco. In the USA, from the Mohawk mine, Keweenaw Co., Michigan. In Canada, at the Eldorado mine, Great Bear Lake, Northwest Territories; in various mines around Cobalt, Ontario, and other scattered localities. In the Ulsan mine, Kyongsang Province, South Korea. Known from a number of other occurrences world-wide.

Name: To honor Karl Friedrich Rammelsberg (1813–1899), mineral chemist of Berlin, Germany. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without the prior written permission of Mineral Data Publishing.

References: (1) Palache, C., H. Berman, and C. Frondel (1944) Dana's system of mineralogy, (7th edition), v. I, 309–310. (2) Kjekshus, A., T. Rakke, and A.F. Andresen (1974) Compounds with the marcasite type crystal structure. IX. Structural data for FeAs₂, FeSe₂, NiAs₂, NiSb₂, and CuSe₂. Acta Chem. Scand., 28, 996–1000. (3) (1960) NBS Circ. 539, 10, 42. (4) Criddle, A.J. and C.J. Stanley, Eds. (1993) Quantitative data file for ore minerals, 3rd ed. Chapman & Hall, London, 473. (5) Ramdohr, P. (1969) The ore minerals and their intergrowths, (3rd edition), 839–845.