Sederholmite β–NiSe

Crystal Data: Hexagonal. *Point Group:* $6/m\ 2/m\ 2/m$. As grains in clausthalite.

Physical Properties: Hardness = n.d. VHN = n.d. D(meas.) = n.d. D(calc.) = 7.06

Optical Properties: Opaque. *Color:* In polished section, yellow to orange-yellow. *Optical Class:* Uniaxial. *Pleochroism:* Distinct, in shades of yellow. *Anisotropism:* Strong to distinct, in pinkish to greenish colors.
R_1–R_2: n.d.

Cell Data: *Space Group:* $P6_3/mmc$. $a = 3.624$ $c = 5.288$ $Z = 2$

X-ray Powder Pattern: Kuusamo, Finland.
2.70 (100), 2.015 (80), 1.806 (60), 1.535 (40), 1.50 (40), 1.348 (30), 1.155 (30)

Chemistry:

	(1)	(2)
Ni	36.8	42.65
Co	1.9	
Se	61.3	57.35
Total	100.0	100.00

(1) Kuusamo, Finland; by X-ray fluorescence. (2) NiSe.

Mineral Group: Nickeline group.

Occurrence: In calcite veins, in sills of albite diabase in schist, associated with low-grade uranium mineralization.

Association: Wilkmanite, penroseite, clausthalite, calcite.

Distribution: From Kuusamo, northeastern Finland [TL].

Name: In honor of Jakob Johannes Sederholm (1863–1934), former Director of the Geological Survey of Finland.

Type Material: n.d.

References: (1) Vuorelainen, Y., A. Huhma, and A. Häkli (1964) Sederholmite, wilkmanite, kullerudite, mäkinenite, and trüstedtite, five new nickel selenide minerals. Compt. Rendus Soc. Géol. Finlande, 36, 113–125. (2) (1965) Amer. Mineral., 50, 519–520 (abs. ref. 1).