

Crystal Data: Orthorhombic. *Point Group:* $2/m\ 2/m\ 2/m$. Crystals thick tabular on {100}, with {100}, {010}, {110}, {210}, {011}; usually composite, nearly parallel, warped, barrel-shaped, sheaflike, to 2 mm.

Physical Properties: *Cleavage:* On {101}, fair. Hardness = < 4 D(meas.) = 3.67 D(calc.) = [3.75]

Optical Properties: Semitransparent. *Color:* Bright green, apple-green to pale green, pale yellow. *Streak:* White.

Optical Class: Biaxial (+). *Pleochroism:* X = Z = green; Y = yellow. *Orientation:* X = a; Y = c; Z = b. *Dispersion:* $r < v$, medium. $\alpha = 1.700(5)$ $\beta = 1.715(5)$ $\gamma = 1.732(10)$ $2V(\text{meas.}) = 65(5)^\circ$

Cell Data: *Space Group:* $Pn\bar{m}$. $a = 8.57(1)$ $b = 8.77(1)$ $c = 6.27(1)$ $Z = 4$

X-ray Powder Pattern: Långban, Sweden.

4.39 (10), 3.058 (9), 5.09 (8), 6.10 (7), 2.528 (6), 2.797 (5), 3.14 (4)

Chemistry:

	(1)	(2)	(3)
As ₂ O ₅	43.1	42.89	43.24
FeO		0.01	
MnO	48.8	50.29	53.37
CuO		0.01	
ZnO		0.01	
MgO		1.14	
CaO	1.3	0.50	
H ₂ O	n.d.	[3.36]	3.39
Total		[98.21]	100.00

(1) Långban, Sweden; by electron microprobe, total Mn as MnO, total As as As₂O₅. (2) Do.; by electron microprobe, average of two analyses, total Mn as MnO, total As as As₂O₅; corresponds to $(\text{Mn}_{1.90}\text{Mg}_{0.08}\text{Ca}_{0.02})_{\Sigma=2.00}(\text{AsO}_4)_{1.00}(\text{OH})$. (3) $\text{Mn}_2(\text{AsO}_4)(\text{OH})$.

Polymorphism & Series: Dimorphous with sarkinite.

Occurrence: Very rare, in fissures in a metamorphosed Fe–Mn orebody (Långban, Sweden); in a metamorphosed stratiform zinc orebody (Sterling Hill, New Jersey, USA).

Association: Akrochordite, manganoan hörnesite, hausmannite, carbonates, Fe–Mn oxides (Långban, Sweden); willemite, sarkinite (Sterling Hill, New Jersey, USA).

Distribution: From Långban, Värmland, Sweden. At Sterling Hill, Ogdensburg, Sussex Co., New Jersey, USA.

Name: Named for the biblical *Eve*, in contrast to adamite, with which it is isostructural.

Type Material: Swedish Museum of Natural History, Stockholm, Sweden, 390274; The Natural History Museum, London, England; Harvard University, Cambridge, Massachusetts, 108971; National Museum of Natural History, Washington, D.C., USA, 120062, 162614A.

References: (1) Moore, P.B. (1968) Eveite, $\text{Mn}_2(\text{OH})(\text{AsO}_4)$, a new mineral from Långban. *Arkiv Mineral. Geol.*, 4(26), 473–476. (2) (1970) *Amer. Mineral.*, 55, 319–320 (abs. ref. 1). (3) Moore, P.B. and J.R. Smyth (1968) Crystal chemistry of the basic manganese arsenates: III. The crystal structure of eveite, $\text{Mn}_2(\text{OH})(\text{AsO}_4)$. *Amer. Mineral.*, 53, 1841–1845. (4) Hålenius, U. and E. Westlund (1998) Manganese valency and the color of the $\text{Mn}_2\text{AsO}_4(\text{OH})$ polymorphs eveite and sarkinite. *Mineral. Mag.*, 62, 113–119.

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.