



Sweden Minerals

Michael Pabst

February 12, 2023

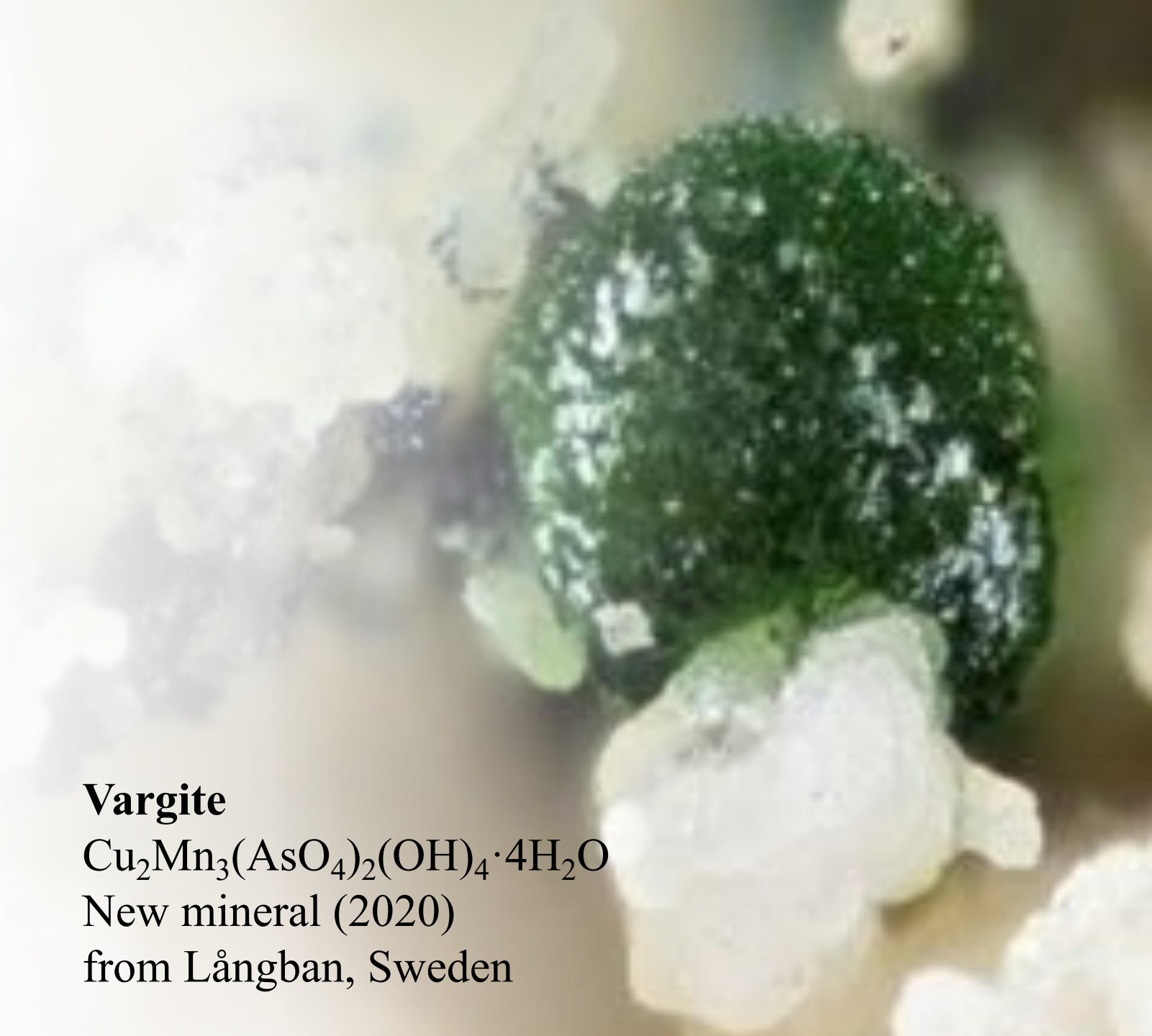
Shenandoah Valley Gem & Mineral Society

Vargite

$\text{Cu}_2\text{Mn}_3(\text{AsO}_4)_2(\text{OH})_4 \cdot 4\text{H}_2\text{O}$

New mineral (2020)

from Långban, Sweden



Outline

- Mineral Museums visited:
 - Göteborg
 - Uppsala
 - Stockholm (Crown Jewels)
- Mineral Show in Västerås, Sweden
- Långban
- Swedish Minerals in Pabst Collection vs. Mindat
- Nice Ice Surprise







Red Granite

Everywhere

Goteborgs Naturhistoriska Museum





-
- Copper
-





Silver. Kongsberg, Norway

Gold

Romania





Diopside

Siberia



Fluorite

Bavaria



Azurite

France



Malachite



Siderite

Harz, Germany



Natural History Museum
University of Uppsala



Miargyrite

AgSbS_2

Pyrargyrite

Ag_3SbS_3

Grube Stahlberg, Müsen
North Rhine – Westphalia, Germany

Black with dark red internal reflections.
Streak red.



Monoclinic, $\beta = 98.48(2)^\circ$



Dioptase

CuSiO_4

Mindouli

Congo-Brazzaville



Crocoite

Berezovsk
Russia



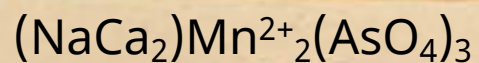
**Långban Minerals at the
Uppsala Museum**

Sarkanite

Långban

$\text{Mn}^{2+}_2(\text{AsO}_4)(\text{OH})$





Manganberzeliit

manganberzeliite

orange åder i dolomit

Natrium-kalcium-manganarsenat



Berzeliit

berzeliite

smörgul körtel i dolomit med hausmannit

Natrium-kalcium-magnesiumarsenat



CoAsS

Koboltglans
cobaltite
Håkansboda, Västmanland
Sverige



Augit
augite
Nordmark, Värmland
Sverige

$(\text{Ca}_x\text{Mg}_y\text{Fe}_z)(\text{Mg}_{y1}\text{Fe}_{z1})\text{Si}_2\text{O}_6$

Rhodonite
Värmland
Sweden





Kalcit

Nordmark, Värmland, Sverige



Mineral Show at Västerås



UPP
EN

BLI MEDLE

NATUR
MINERA

MANADSMO

INTRES
KAFFE
MINERAL

MEDLEMSTID
LITOFIL

Ryöli
Island 1-1/2

SVENSKA MINERAL

SVENSKA MINERAL





Långban has over 300 mineral species.

Långban is the type locality for 76 minerals,
many found nowhere else.

The **Långban** deposit in Sweden is type locality for 76 valid mineral species. During the last 14 years, 11 new species have been discovered. Half were found on the dumps by collectors and the remaining are from older museum material, especially from the vast Långban collection at the Swedish Museum of Natural History.

Cl, Be, As, and Pb are the elements that play the most important role in the new type minerals.

Vargite is one of the newly published hydrated arsenates $\text{Cu}_2\text{Mn}_3(\text{AsO}_4)_2(\text{OH})_4 \cdot 4\text{H}_2\text{O}$.



Vargite

Britvinite	M	$[Pb_7(OH)_3F(BO_3)_2CO_3][Mg_{4.5}OH_3(Si_5O_{14})]$	2007
Långbanshyttanite	M	$Pb_2Mn_2Mg(AsO_4)_2(OH)_4 \cdot 6H_2O$	2011
Gatedalite	D	$ZrMn^{2+}_2Mn^{3+}_4SiO_{12}$	2013
Wiklundite	D	$Pb_2(Mn^{2+},Zn)_3(Fe^{3+},Mn^{2+})_2(Mn^{2+},Mg)_{19}(As^{3+}O_3)_2[Si,As^{5+})O_4]_6(OH)_{18}Cl_6$	2017
Hjalmarite	M	$NaNaMn(Mg_5)Si_8O_{22}(OH)_2$	2017
Hydroxylhedyphane	M	$Ca_2Pb_3(AsO_4)_3(OH)$	2018
Mangani-pargasite	D	$NaCa_2(Mg_4Mn^{3+})Si_6Al_2O_{22}(OH)_2$	2019
Langhofite	D	$Pb_2OH[WO_4OH]$	2019
Vargite	M	$Cu_2Mn_3(AsO_4)_2(OH)_4 \cdot 4H_2O$	2020
Erssonite	D	$CaMg_7Fe^{3+}_2(OH)_{18}(SO_4)_2 \cdot 12H_2O$	2021
Igelströmite	M	$Fe^{3+}(Sb,Pb)O_4$	2021

Mangani-pargasite

Långban

$\text{NaCa}_2(\text{Mg}_4\text{Mn}^{3+})\text{Si}_6\text{Al}_2\text{O}_{22}(\text{OH})_2$

FOV 2.5 mm

Stephan Wolfsried

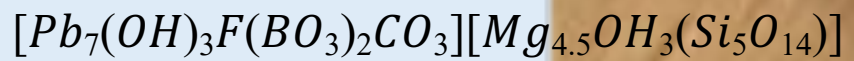


Britvinite

Långban

FOV 5 cm

B. Otter

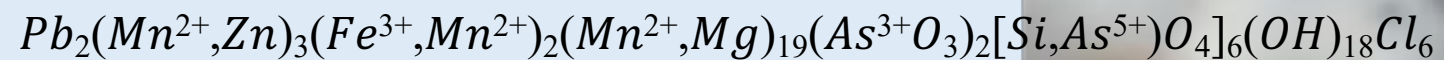


Wiklundite

Långban

FOV 2 mm

Torbjörn Lorin

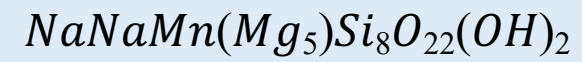


Hjalmarite

Långban

FOV 2 mm

Joy Desor



Hydroxylhedyphane

Långban

$\text{Ca}_2\text{Pb}_3(\text{AsO}_4)_3(\text{OH})$

FOV 8 mm

L Kruszewski



Nadorite

Långban

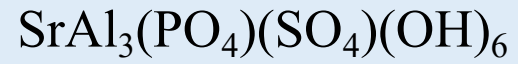
PbSbClO_2

FOV 1.3 mm

Christian Rewitzer



Svanbergite



Quartz and Calcite

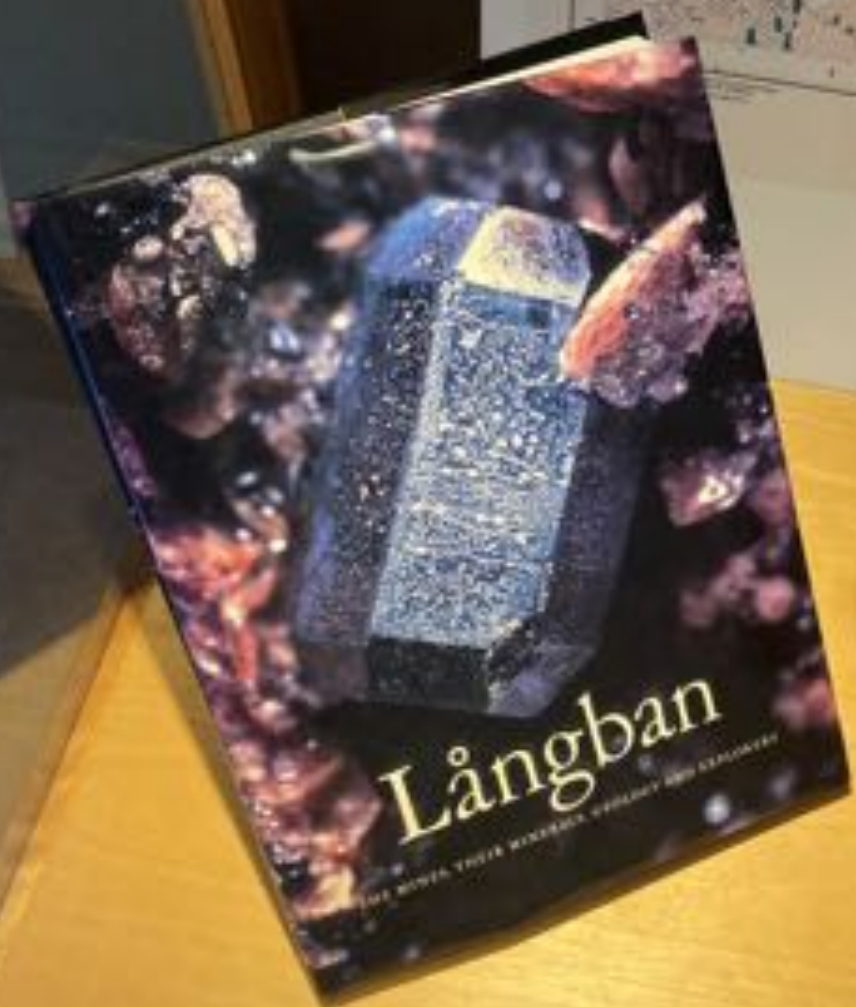
Mount Brussilof Mine
Radium Hot Springs
Bolden Mining District
British Columbia

Type Locality: **Långban**

FOV 13 mm

Michael Pabst





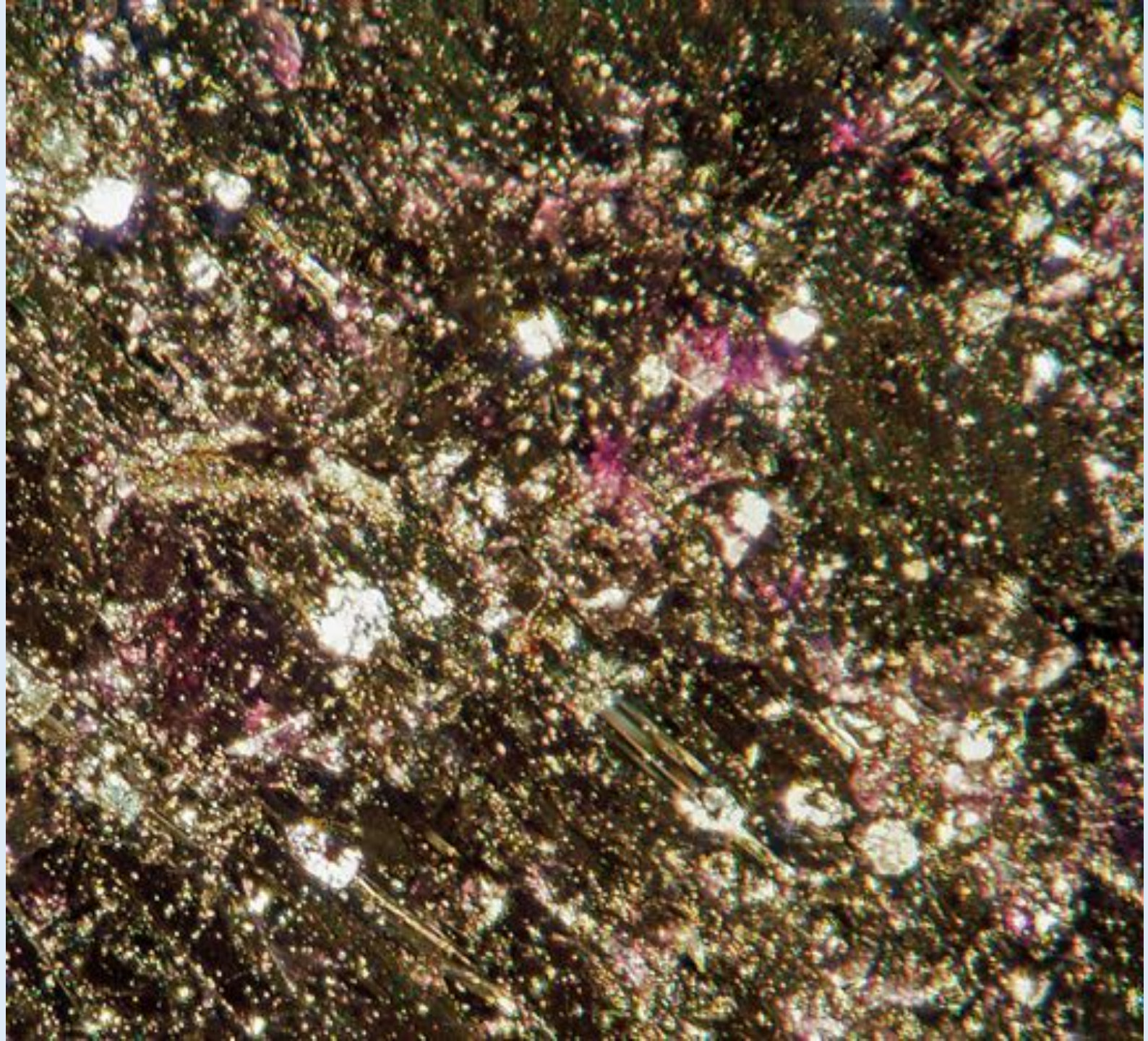
Small white label with text, likely identifying the mineral specimen.



Ferri-hollandite (black)
 $\text{Ba}(\text{Mn}^{4+}_6\text{Fe}^{3+}_2)\text{O}_{16}$

Fluorite (purple)
 CaF_2

Photo by Michael Pabst,
using stereo microscope,
stacking 14 images.

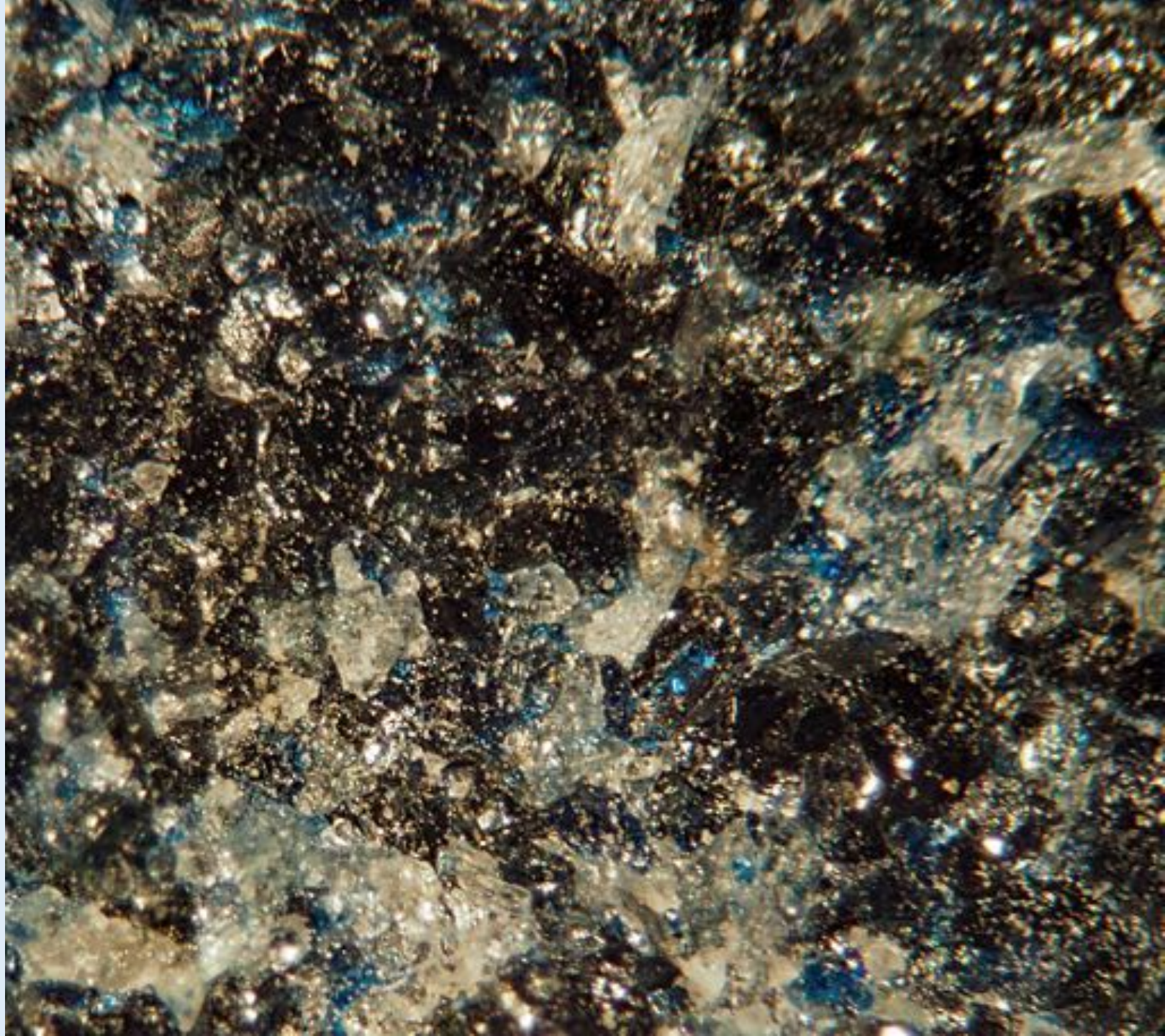


Wyllieite (black)
 $(\text{Na,Ca,Mn})(\text{Mn,Fe})(\text{Fe,Mg})\text{Al}(\text{PO}_4)_3$

Lavendulan (blue)
 $\text{NaCaCu}_5(\text{AsO}_4)_4\text{Cl} \cdot 5\text{H}_2\text{O}$

Scorzalite (blue)
 $\text{Fe}^{2+}\text{Al}_2(\text{PO}_4)_2(\text{OH})_2$

Photo by Michael Pabst,
using stereo microscope,
stacking 6 images



Allactite

Moss mine, Nordmark Odal Field, Filipstad, Värmland County, Sweden



FOV 2 mm

Photo by Michael Pabst

Stereo microscope, 17 images stacked

Allactite

[Moss mine, Nordmark Odal Field,
Filipstad, Värmland County, Sweden](#)

FOV 3 mm

Photo by Christian Rewitzer



Allactite

Moss Mine,
Sweden

FOV 3 mm

Elmar Lackner



Rhodonite

MnSiO_3

Garpenberg,
Hedemora,
Dalarna County,
Sweden

FOV 3.5 mm

Photo by e-Rocks

