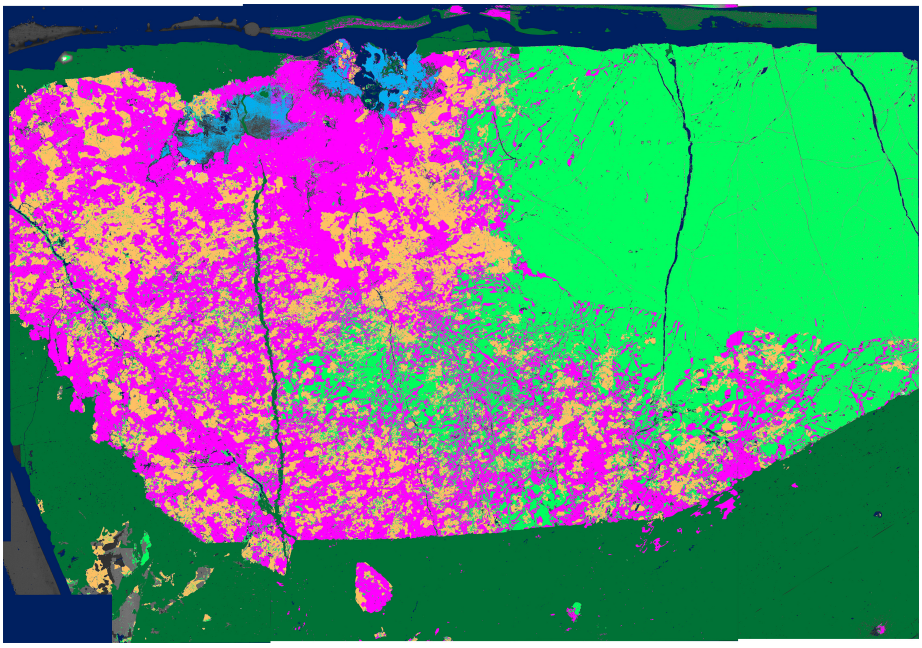
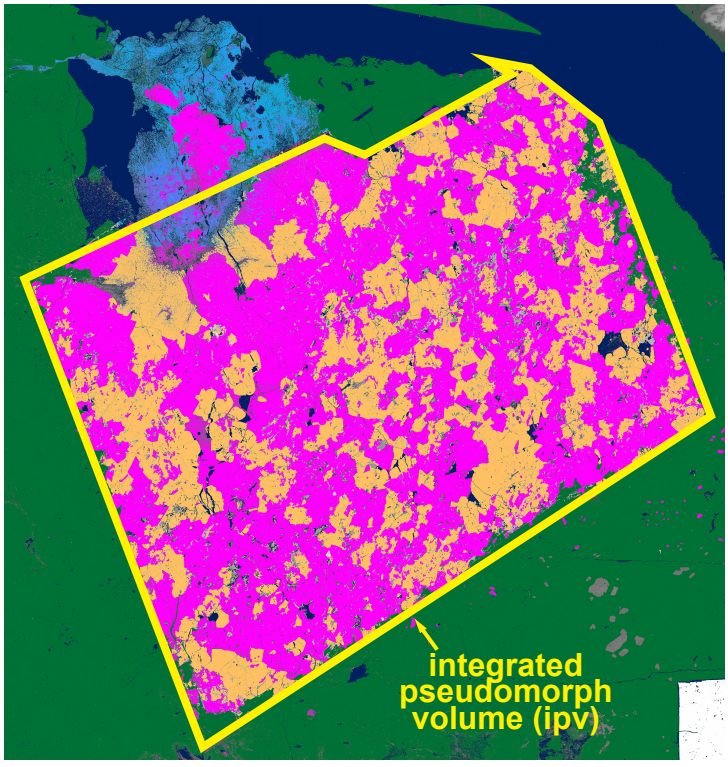
SUPPLEMENTARY TABLE 1: LIST OF MINERALS OBSERVED IN THE MOOSE CREEK PEGMATITE (from PIILONEN *et al*. 2024).

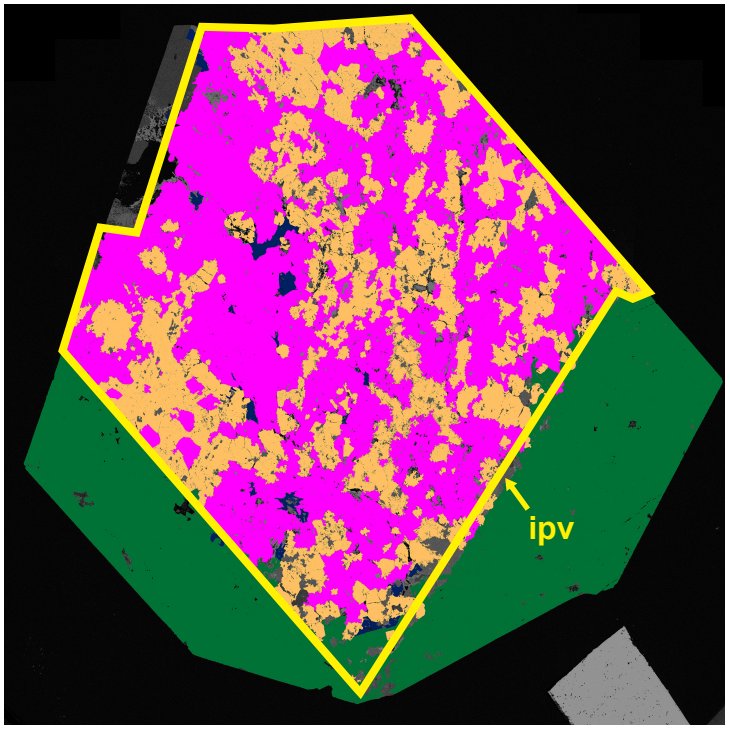
Pyroxenes	
Aegerine	$NaFe^{3+}Si_2O_6$
Augite	$(Ca,Mg,Fe)(Mg,Fe)Si_2O_6$
Zeolites	
Natrolite	$Na_2Al_2Si_3O_{10} \cdot 2H_2O$
Analcime	$Na(AlSi_2O_6) \cdot H_2O$
Wairakite	$Ca(Al_2Si_4O_{12}) \cdot 2H_2O$
Sodalite	$Na_4(Si_3Al_3)O_{12}Cl$
Gonnardite	$(Na,Ca)_2(Si,Al)_5O_{10} \cdot 3H_2O$
Carbonates, phosphates, sulphates	
Calcite	$CaCO_3$
Apatite	$Ca_5(PO_4)_3(Cl,F,OH)$
Baryte	$BaSO_4$
Titanium oxides	
Anatase	TiO_2
Brookite	TiO_2
Ilmenite	$FeTiO_3$
Srilankite	$ZrTi_2O_6$
Henrymeyerite	$Ba(Ti_7Fe^{2+})O_{16}$
Titanium silicates	
Vinogradovite	$Na_4Ti_4(Si_2O_6)_2[(Si,Al)_4O_{10}]O_4 \cdot (H_2O,Na,K)_3$
Titanite	$CaTiOSiO_4$
Lorenzenite	$Na_2Ti_2(Si_2O_6)O_3$
Rare-earth-bearing phases	
Lucasite-(Ce)	$CeTi_2(O,OH)_6$
Ancylite-(Ce)	$CeSr(CO_3)_2(OH) \cdot H_2O$
Allanite	
Hydroxides	
Nordstrandite	$Al(OH)_3$
Gibbsite	$Al(OH)_3$
Mica	
Biotite	$K(Fe^{2+},Mg)_2(Al,Fe^{3+},Mg,Ti)((Si,Al,Fe)_2Si_2O_{10})(OH,F)_2$
Phlogopite	$KMg_3(AlSi_3O_{10})(OH)_2$
Other HFSE silicates	
Thorite	$Th(SiO_4)$
Zircon	$ZrSiO_4$
Catapleiite	$Na_2Zr(Si_3O_9) \cdot 2H_2O$



53IRC

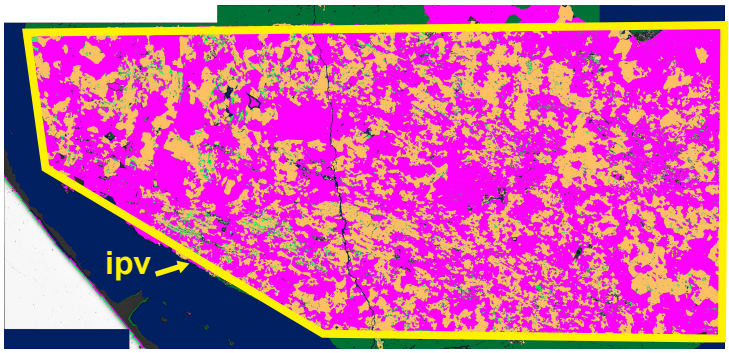


17IRC (01)

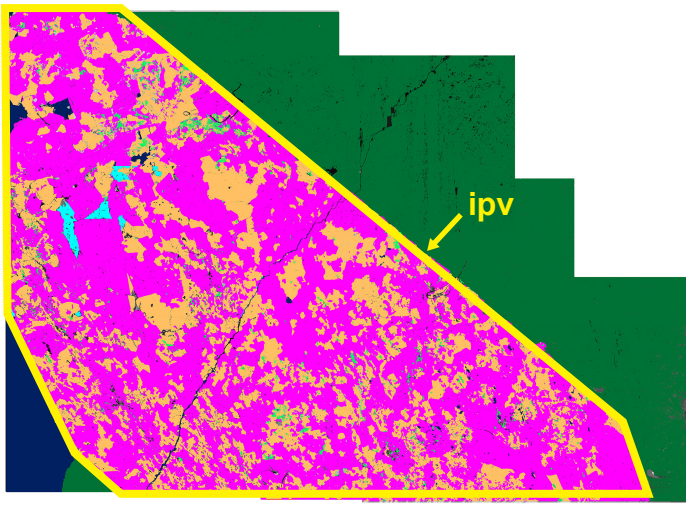


17IRC (02)

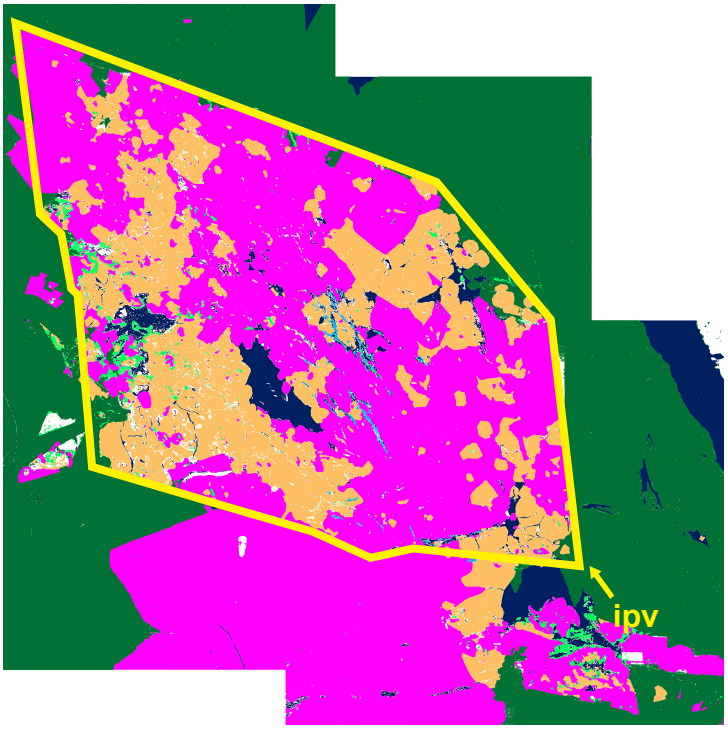
SUPPLEMENTARY MATERIAL 2



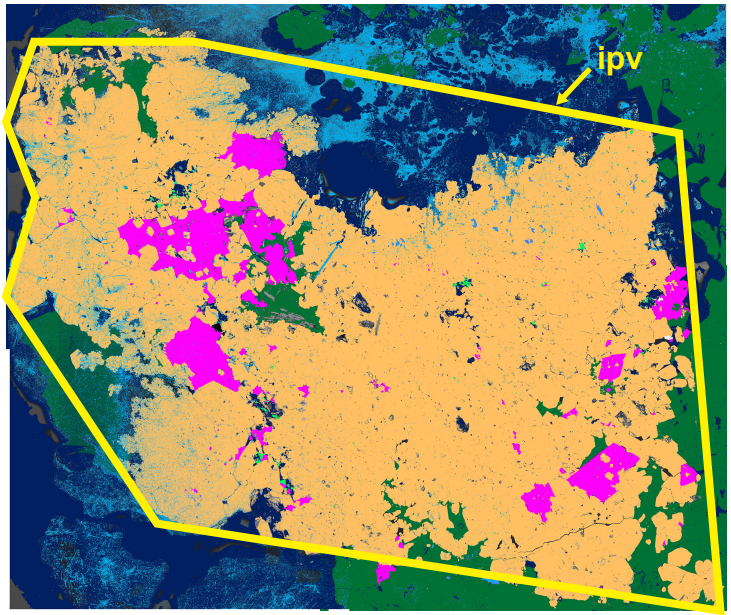
34IRC (01)



34IRC (02)

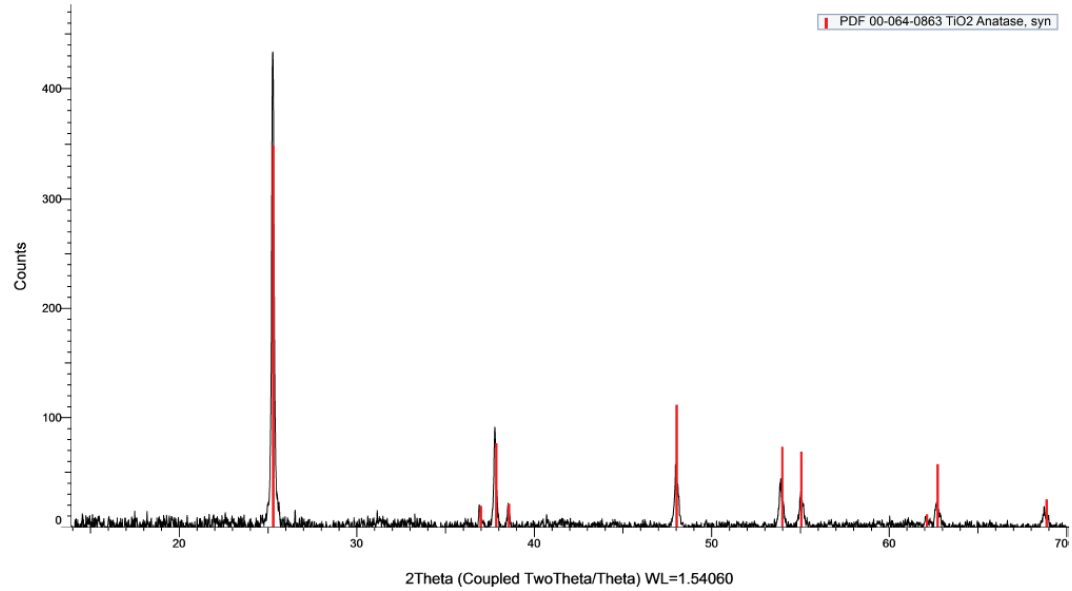


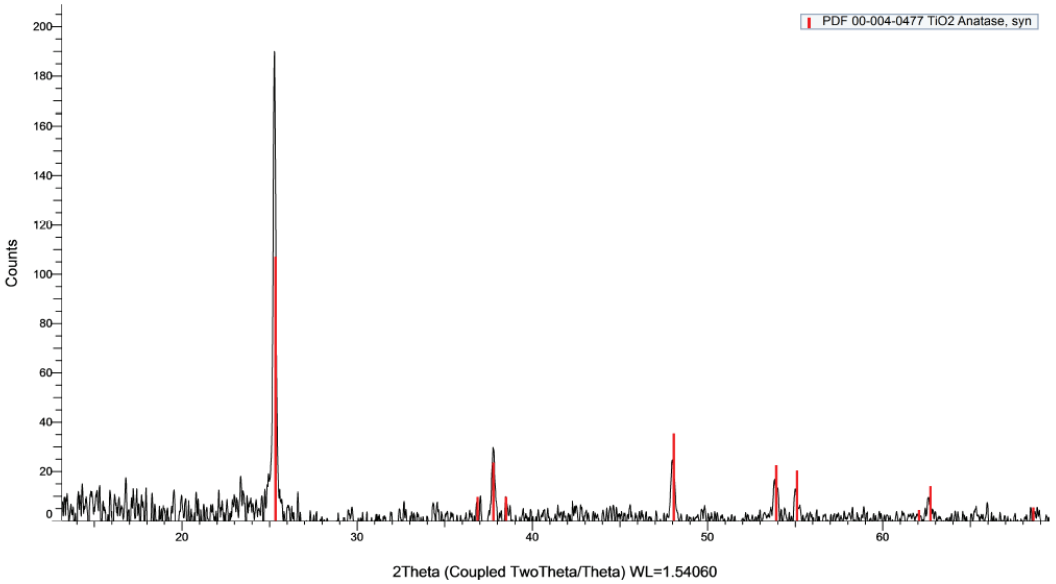
36IRC

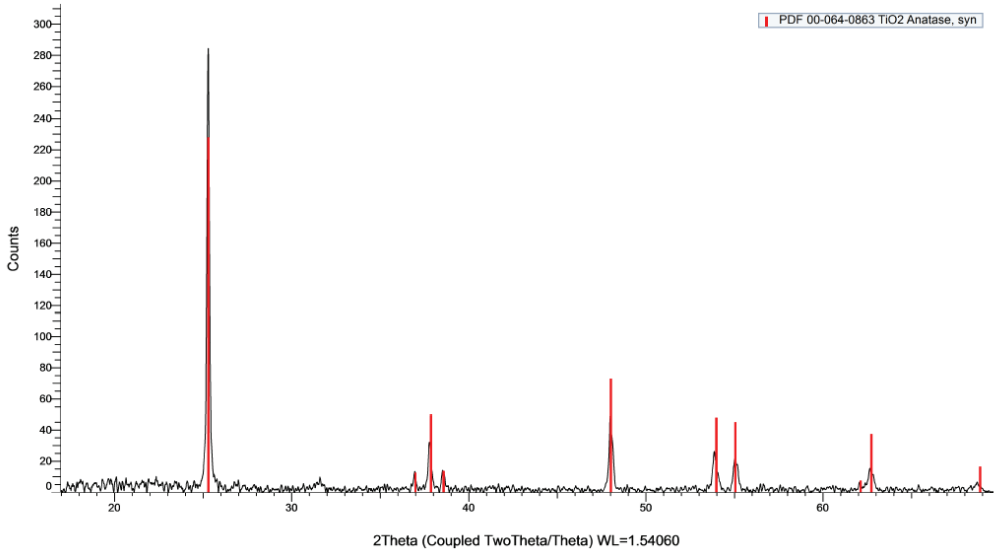


37IRC

SUPPLEMENTARY MATERIAL 2







SUPPLEMENTARY MATERIAL 3

Selection of three powder XRD patterns collected on fibrous material in 37IRC. Patterns show anatase to be the only phase present.

See text for details.