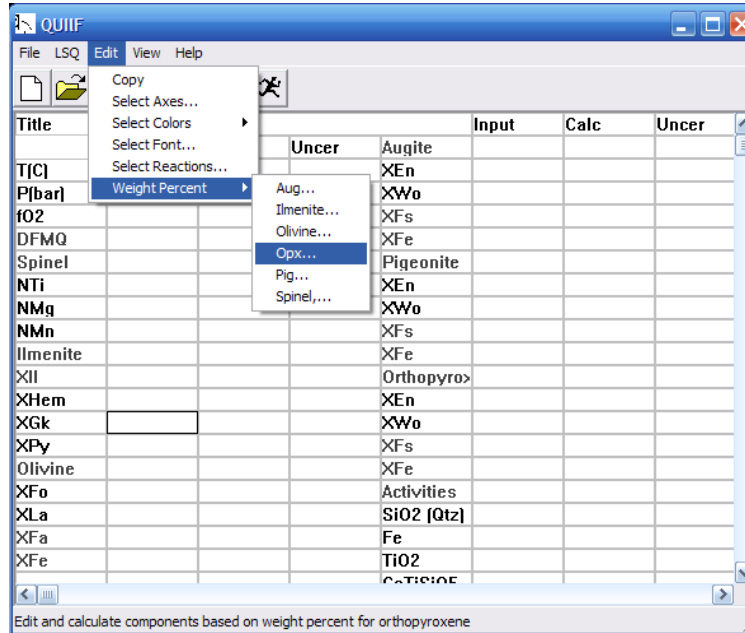
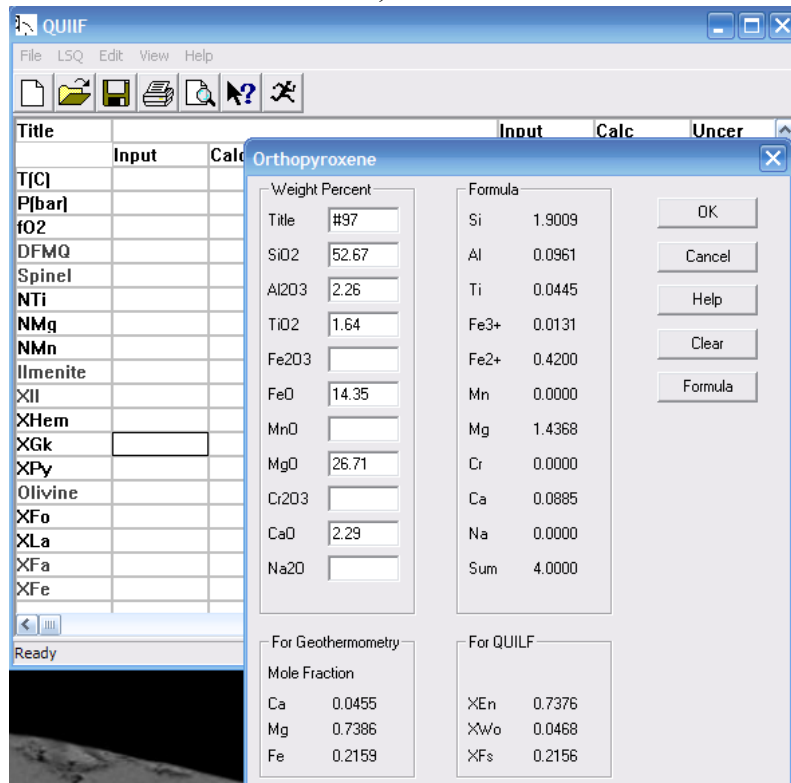


QUILF Basics

Fill in your weight percent for OPX




Then click “Formula” button, then click “OK” button



Next, your OPX values will be automatically transferred to the QUILF page in the “Input” column. Then enter your run temperature (°C and limited between 400 and 1500)

and pressure (bars and limited between 1 and 32767) in the “Input” column. Then in the “Input column” enter some (any) fractional number in the “XGk box” followed by a “?”, which signifies to the program the parameter you want it to calculate. (the “XGk box” represents the mol fraction of geikielite in ilmenite). Now you are ready to run the calculation.

Title	Input	Calc	Uncer	Augite	Input	Calc	Uncer
T[C]	1500			XEn			
P[bar]	32000			XWo			
fO2				XF _s			
DFMQ				XFe			
Spinel				Pigeonite			
NTi				XEn			
NMg				XWo			
NMn				XF _s			
Ilmenite				XFe			
XII				Orthopyro>			
XHem				XEn	0.7376		
XGk	0.5?			XWo	0.0468		
XP _y				XF _s			
Olivine				XFe			
XF _o				Activities			
XLa				SiO ₂ [Qtz]			
XFa				Fe			
XFe				TiO ₂			
				CaTiSiO ₅			

To run the program click on the run button “”. Then values will appear in the “Calc” column. These values represent the equilibrium values for the conditions specified (i.e., the XII and XGk should equal those of your experiment if P, T, and OPX composition are all correct (notice that these values did not change between the “Input” column and the “Calc” column).

Title	Input	Calc	Uncer	Augite	Input	Calc	Uncer
T[C]	1500	1500		XEn			
P[bar]	32000	32000		XWo			
fO2				XF _s			
DFMQ				XFe			
Spinel				Pigeonite			
NTi				XEn			
NMg				XWo			
NMn				XF _s			
Ilmenite				XFe			
XII		0.758		Orthopyro>			
XHem				XEn	0.7376	0.738	
XGk	0.5?	0.242	0.000	XWo	0.0468	0.047	
XP _y				XF _s		0.216	
Olivine				XFe		0.226	
XF _o				Activities			
XLa				SiO ₂ [Qtz]			
XFa				Fe			
XFe				TiO ₂			
				CaTiSiO ₅			