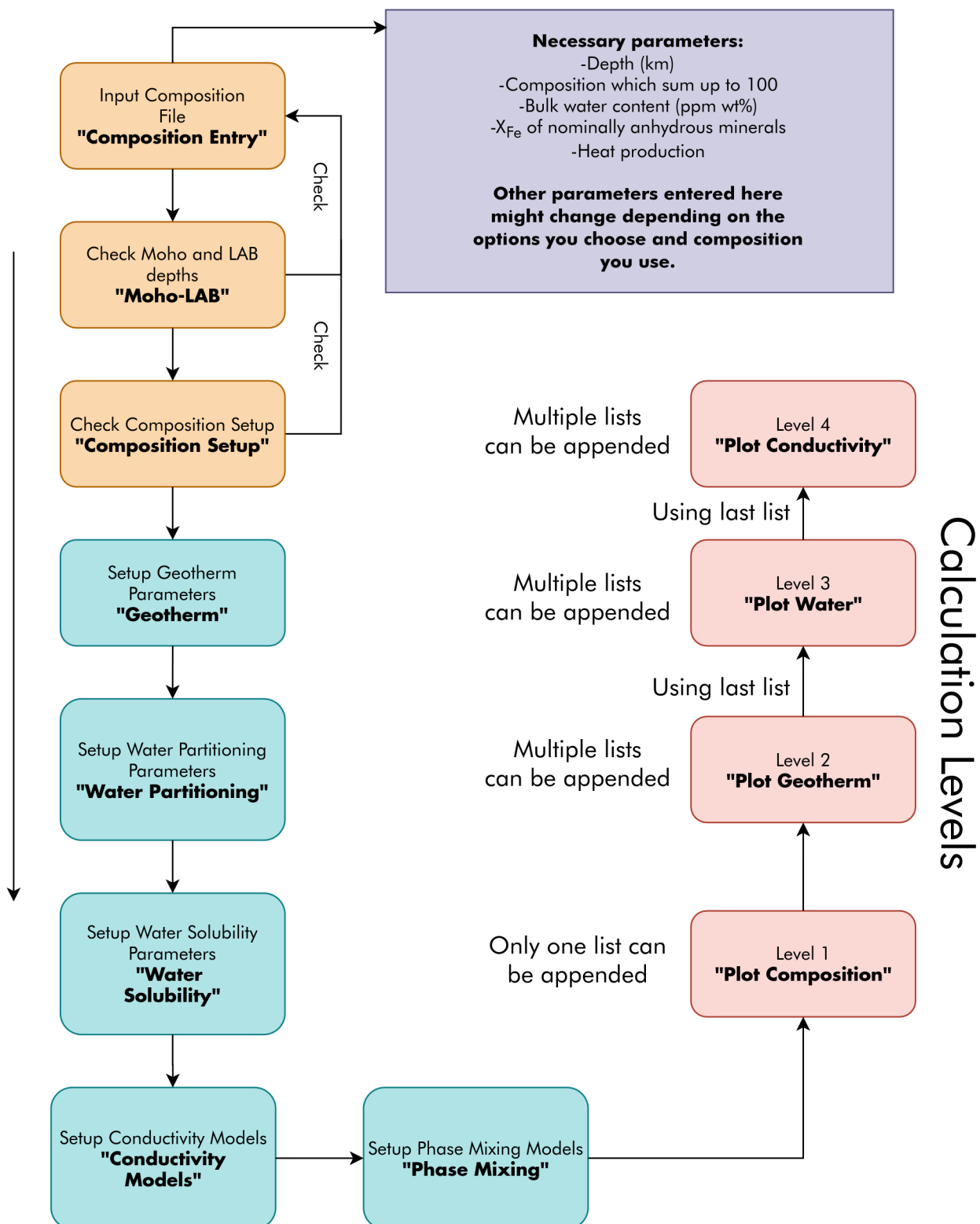
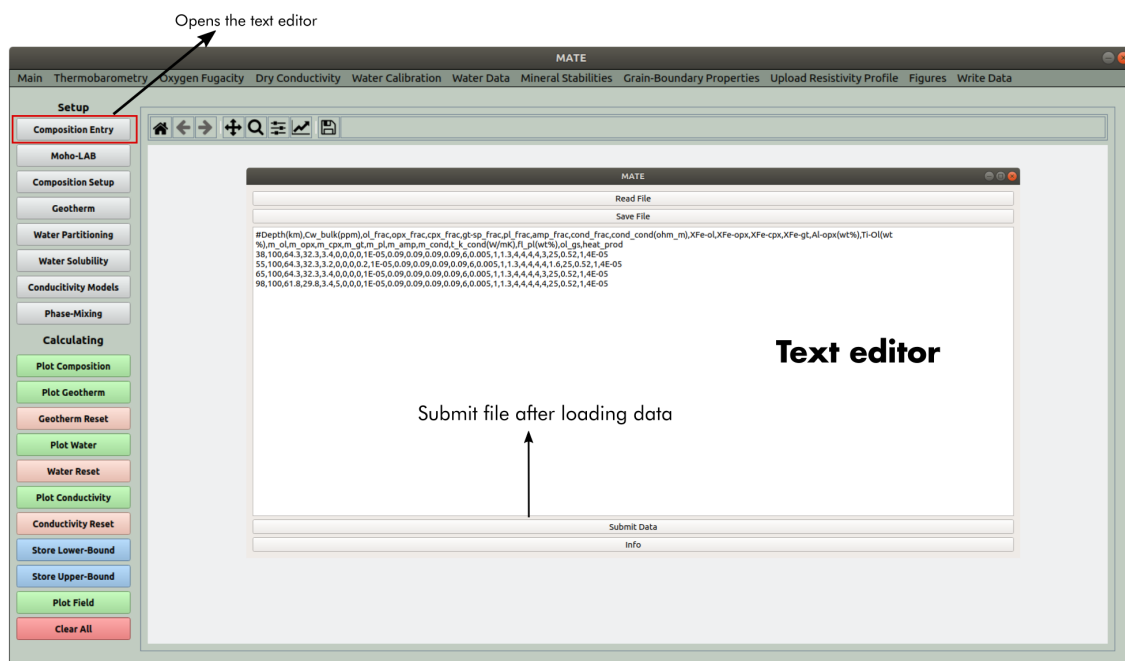
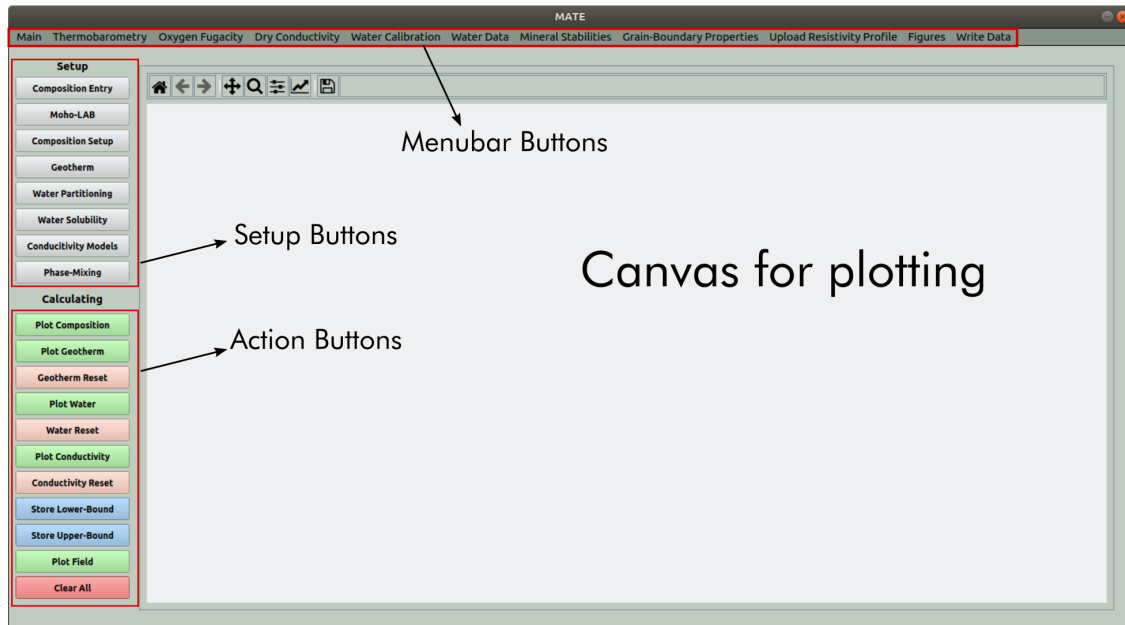
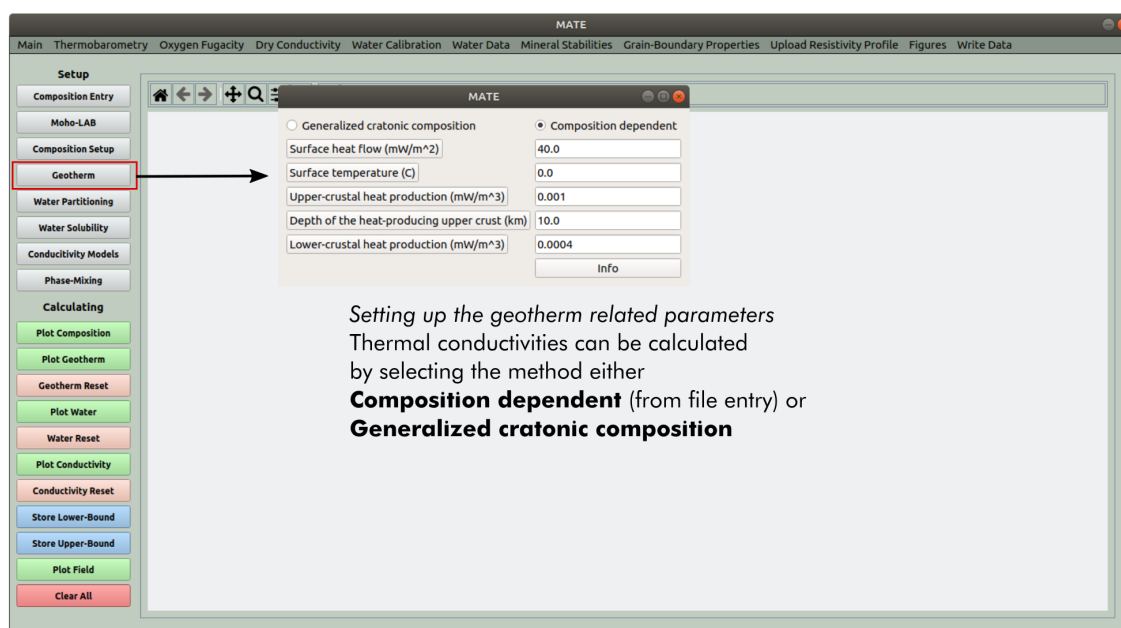
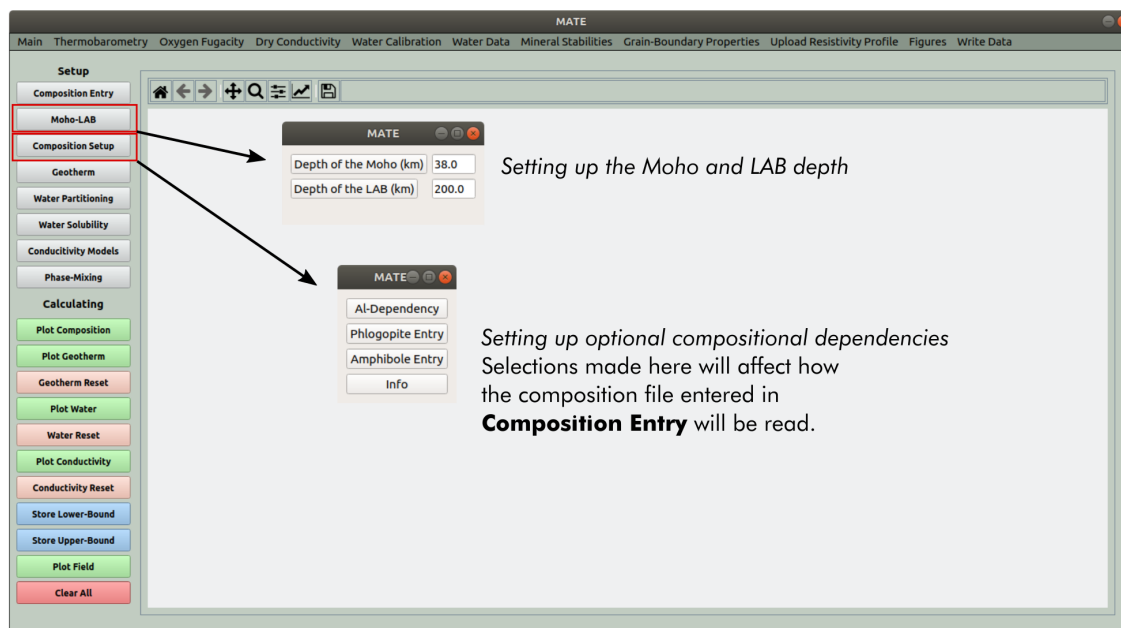


# Guide for MATE



# The software opening screen





**Water Partitioning**

Opx/Ol Type 1 - All opx function continuous P-range  
Cpx/Ol Type 5 - Cpx-opx dependent cpx/ol values from P-dependent function

Selecting opx/ol and cpx/ol water partitioning rates

**Water Solubility**

Pyroxenes  
gt/ol -opx-cpx-gt- melt assemblage  
Hydrous Mineral Setup  
amp/ol Type 4 - Kovacs2012  
phlg/ol Type 4 - Kovacs2012

Options regarding whether hydrous minerals will be included in water distribution scheme

Hydrous Minerals Included in H-partitioning scheme?  
☐ True ☒ False

**Plot Storage Capacities?**  
☐ Yes ☒ No  
Select Model Fero2012  
Use as the Water Distr. No

Setting up solubility properties  
You can choose whether to plot storage capacities and whether to use the solubilities as water content.

**Conductivity Models**

Model Methods  
Ol Model Dai2014a\*\*\*  
Px handled independently Px handled together  
Px Models  
Gt Model Dai2009a  
Amp Model Hu2018H  
Phlg Model Li2016

Options for choosing NAM conductivity models.

Ol Method Proton+Polaron+Ionic  
Opx Method Proton+Polaron+Ionic  
Cpx Method Proton+Polaron+Ionic  
Gt Method Proton+Polaron+Ionic

Opx Model Dai2009  
Cpx Model Liu2019

Orthopyroxene and clinopyroxene conductivity models.

**Generalized Archie's Law (Glover, 2010)**  
☐ Hashin-Shtrikman Lower Bound (Berryman, 1995)  
☐ Hashin-Shtrikman Upper Bound (Berryman, 1995)  
☐ Parallel Model (Guegen and Palciauskas, 1994)  
☐ Perpendicular Model (Guegen and Palciauskas, 1994)  
☐ Random Model (Guegen and Palciauskas, 1994)

Setting up phase mixing models

