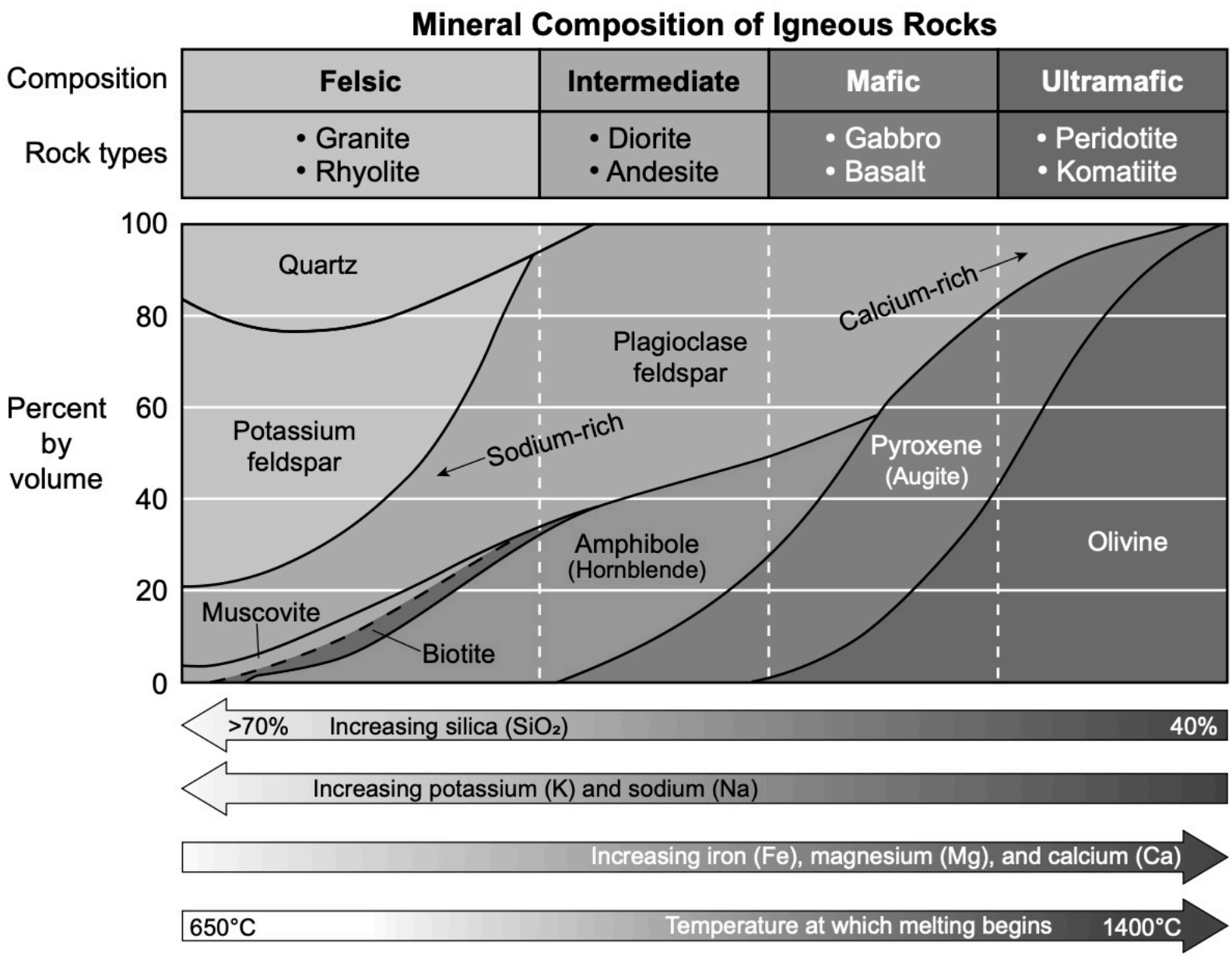
Mineral Composition of Igneous Rocks
Composition
Felsic
Intermediate
Mafic
Ultramafic
Rock types
• Granite
• Rhyolite
• Diorite
• Andesite
• Gabbro
• Basalt
• Peridotite
• Komatiite
Percent by volume
100
80
60
40
20
0
Quartz
Plagioclase feldspar
Calcium-rich
Potassium feldspar
Sodium-rich
Pyroxene (Augite)
Amphibole (Hornblende)
Olivine
Muscovite
Biotite
>70%
Increasing silica (SiO2)
40%
Increasing potassium (K) and sodium (Na)
Increasing iron (Fe), magnesium (Mg), and calcium (Ca)
650°C
Temperature at which melting begins
1400°C