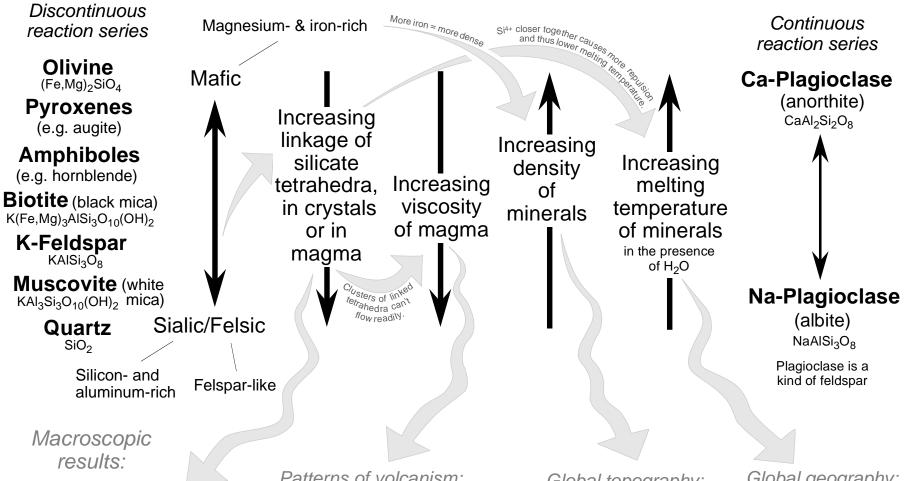
Generalized Trends in Silicate Minerals in Igneous Rocks:

Gray arrows indicate paths of causality



Crystal shapes: elongate chain silica

elongate chain silicates, planar layer silicates, equant framework silicates. Patterns of volcanism:
Explosive eruptions and steepsided volcanoes of sialic magmas, vs. flowing volcanism and gently-sloping volcanoes or flood basalts of mafic magmas.

Global topography:
Buoyant sialic
continents with tops
above sea level, and
dense mafic ocean
floor below sea level.

Global geography:
Differentiation
of sialic continental
crust by partial
melting.