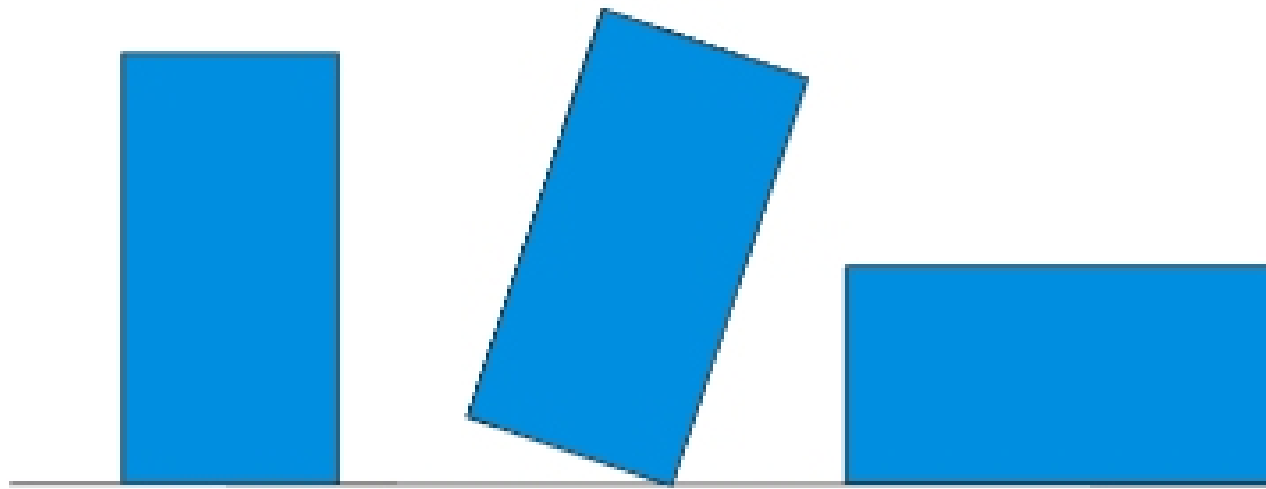




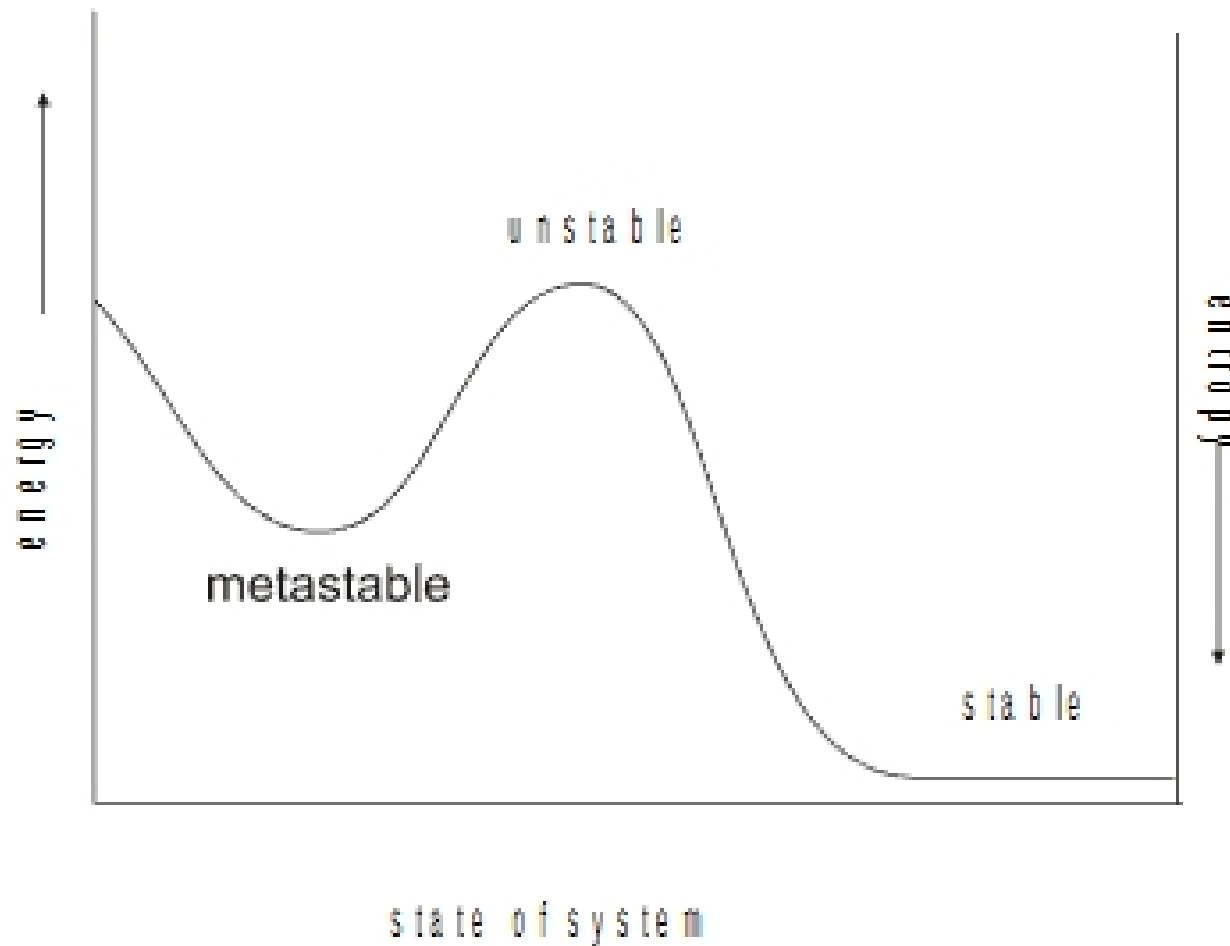
metastable

unstable

stable



Metastability and stability



Why do metastable phases form?



Ostwald's Step Rule:

The first solid phase to precipitate is most soluble phase (i.e. the least stable, or metastable, phase)

Wilhelm Ostwald (1853 –1932)

- Aragonite instead of calcite
- $\text{SiO}_2 \cdot x(\text{H}_2\text{O})$ instead of quartz
- FeS instead of pyrite
- Ferrihydrite instead of hematite