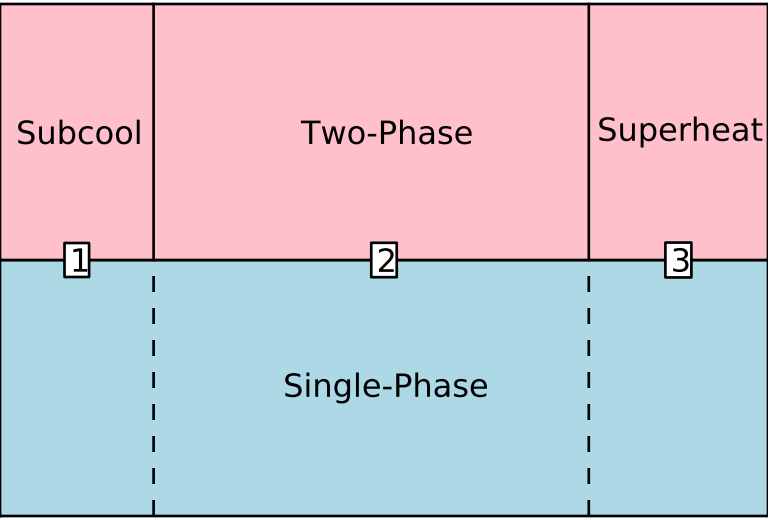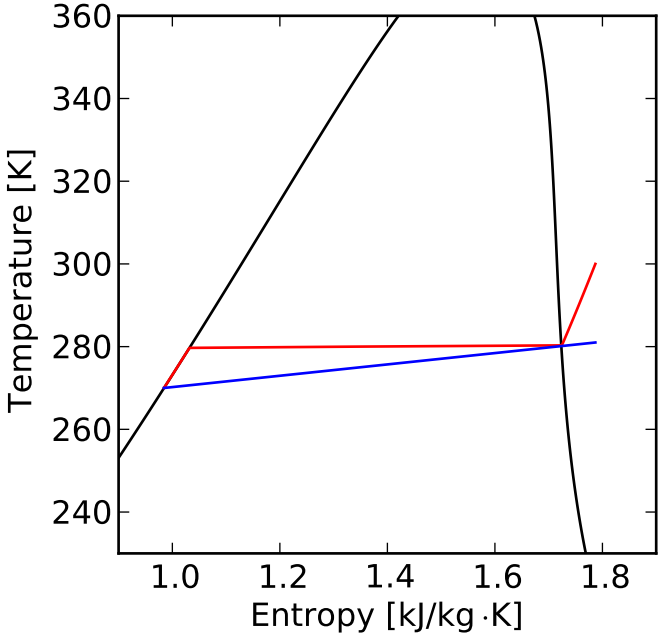Pinched at $\dot{Q}_{max}$ - single-phase fluid is colder