

Vapour Liquid Equilibrium = VLE

@wikipedia

Synonym: Fluid Phase Equilibrium = Vapour Liquid Equilibrium (VLE)

A partial case of [Phase Equilibrium](#) with two [fluid phases](#) staying at [Thermodynamic equilibrium](#).

In other words it's a state of [thermodynamic equilibrium](#) between the [liquid](#) and [gas](#) state of a [Fluid Mixture](#).

The [PT Diagram](#) for [Pure Substance](#) will see [Vapour Liquid Equilibrium \(VLE\)](#) as a set of points along a smooth curve ending up with a [Critical Point](#) (T_c, p_c) (see [Fig. 1](#)).

The [PT Diagram](#) for [Fluid Mixture](#) will see [Vapour Liquid Equilibrium \(VLE\)](#) as a closed region (also called [Vapour Liquid Envelope](#)) bounded by [Bubblepoint Curve](#) and [Dewpoint Curve](#) with a junction at [Pseudo-Critical Point](#) (T_{pc}, p_{pc}) (see [Fig. 2](#)).

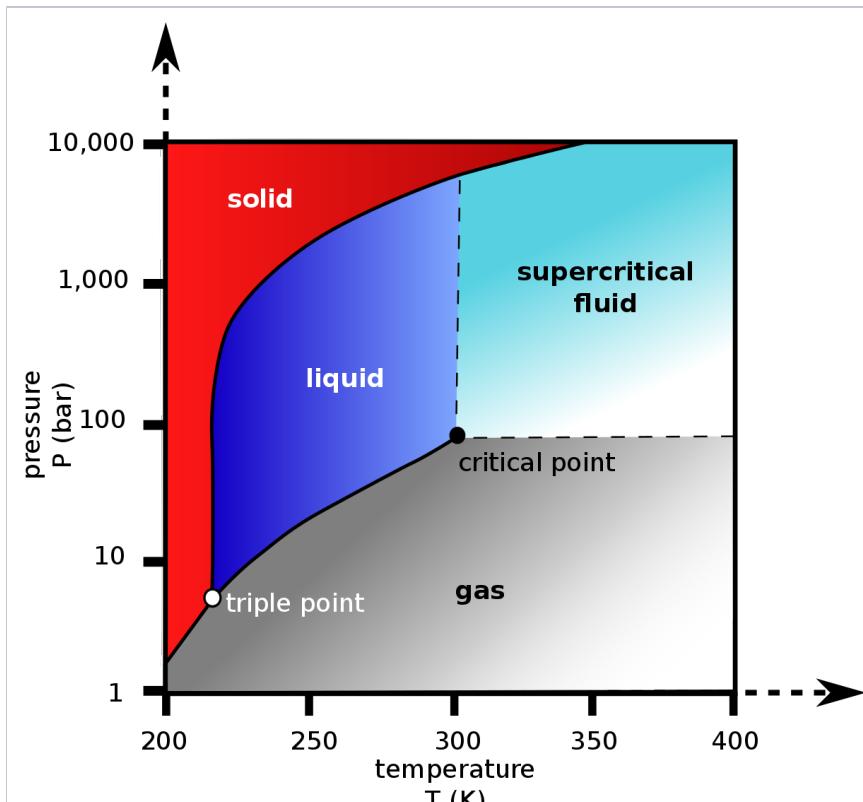


Fig. 1. Schematic PT Diagram with Vapour Liquid Equilibrium curve and Critical Point.

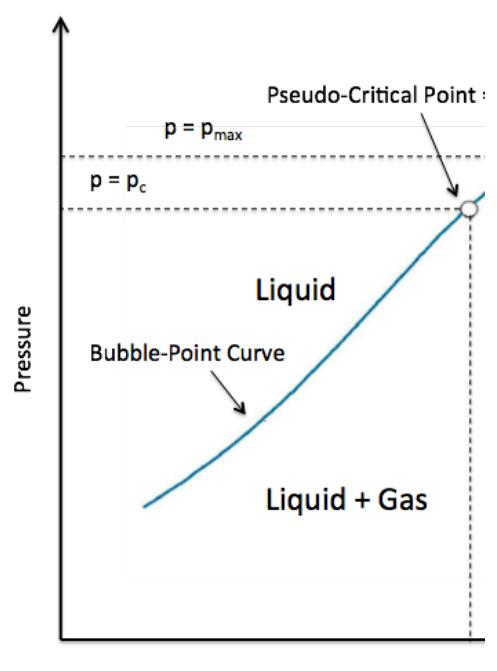


Fig. 2. Schematic PT Diagram with Vapou Point.

See also

Natural Science / Physics / Thermodynamics / Thermodynamic system / Thermodynamic equilibrium / Phase Equilibrium

[State of matter][Pure substance] [Mixtures][Fluid Mixtures][Phase]

[Dewpoint Curve][Bubblepoint Curve][Vapour Liquid Envelope]

[Critical Point (T_c , P_c)][critical Temperature T_c] [Critical Pressure (p_c)][Cricondentherm][Cricondenbar]