

Vapour Liquid Equilibrium = VLE

@wikipedia

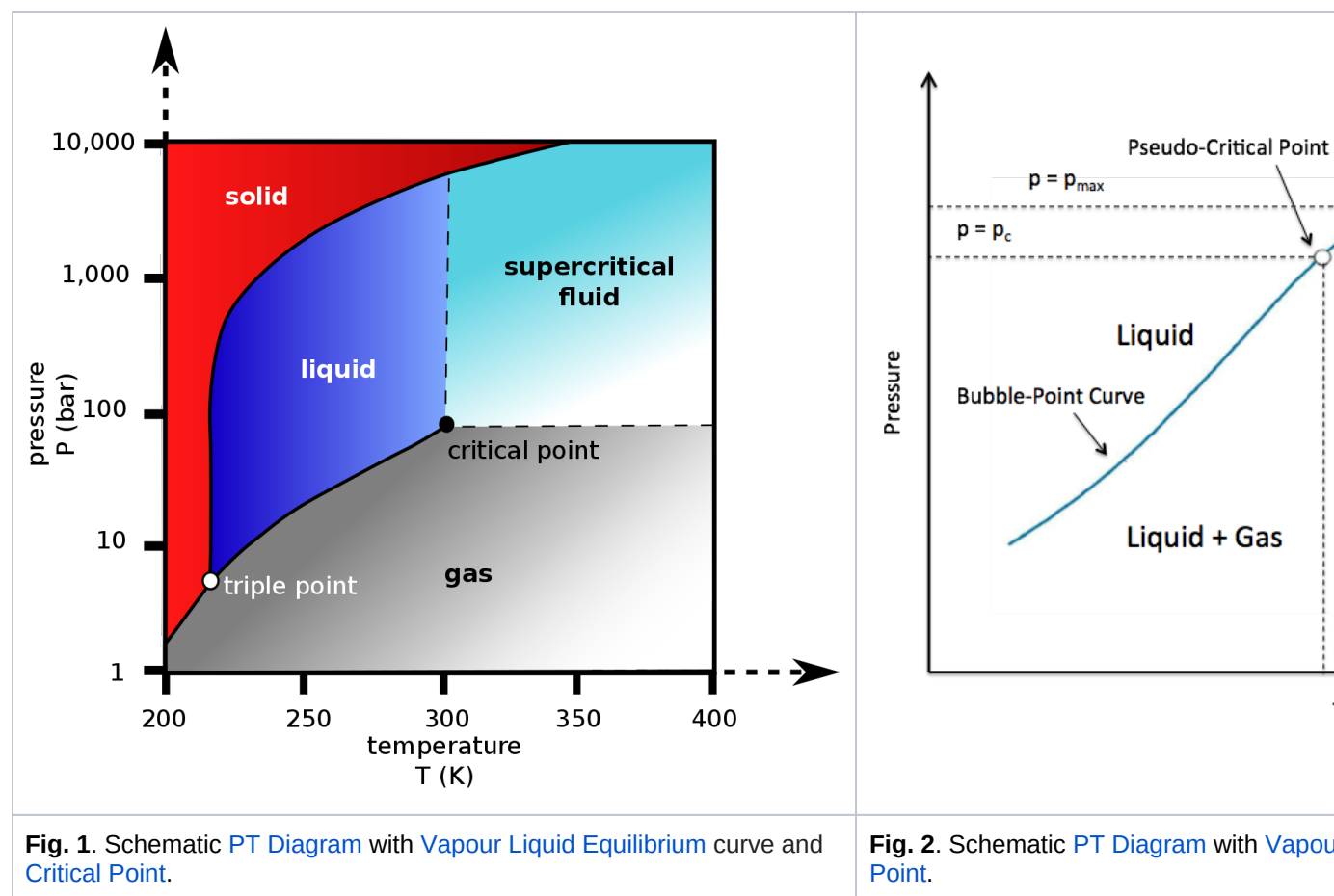
Synonym: Fluid Phase Equilibrium = Vapour Liquid Equilibrium (VLE)

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**).



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)][Cricondetherm][Cricondenbar]