

High-pressure Fluid-phase Equilibria: New Trends, Experimental Methods, and Systems Investigated (2017–2020)

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In our review series, focusing on high-pressure phase equilibria, data on more than 4 000 systems were found the period from 1988 to 2016. In the latest published article alone, 1400 references were found for the period 2013-2016. The work is currently being extended to cover the years 2017-2020.

The type of data considered in the review includes phase equilibria of vapour, liquid, and solid phases, hydrates, critical points, solubility of high-boiling substances in supercritical fluids, solubility of gases in liquids, and solubility (sorption) of volatile components in ionic liquids and in polymers. The term high-pressure is used for data above 1 MPa.

In this work, we review the type of experimental methods available and look at the latest trends in the field. Interesting examples of what to do and what not to do are shown.