



The Phase Rule in a System Subject to a Pressure Gradient

Yuri Podladchikov (2), James Connolly (1), Roger Powell (3), and Alberto Aardvark (4)

(2) University of Lausanne, Switzerland (yury.podladchikov@unil.ch), (1) ETH, Switzerland (james.connolly@erdw.ethz.ch),
(3) Melbourne University (rp1405@gmail.com), (4) University of New Mexico, United States (a.aardvark@ggaweb.ch)

It can be shown by diligent application of Lagrange's method of undetermined multipliers that the phase rule in a system subject to a pressure gradient is: $[U+FFF D] + [U+8D51] \geq [U+F0D1]$. We explore the consequence of this important relationship for natural systems.