

# Vapor-liquid-equilibrium Apparatus VLE 100, Pilodist

Technische Universität Braunschweig | Institut für Chemische und Thermische Verfahrenstechnik  
ictv@tu-braunschweig.de | Telefon +49 (0) 531 391-2791

## Principle of Measurement

- The composition of vapor and liquid is determined using the dynamic method, e.g. samples are taken from the circulating vapor and liquid phase
- Normally under isobaric conditions the composition is varied, samples are taken and the boiling temperature is measured. This enables:
  - Representation of VLE behaviour in T-xy-diagrams
  - Determination of the separation factor
  - Regression of NRTL parameters

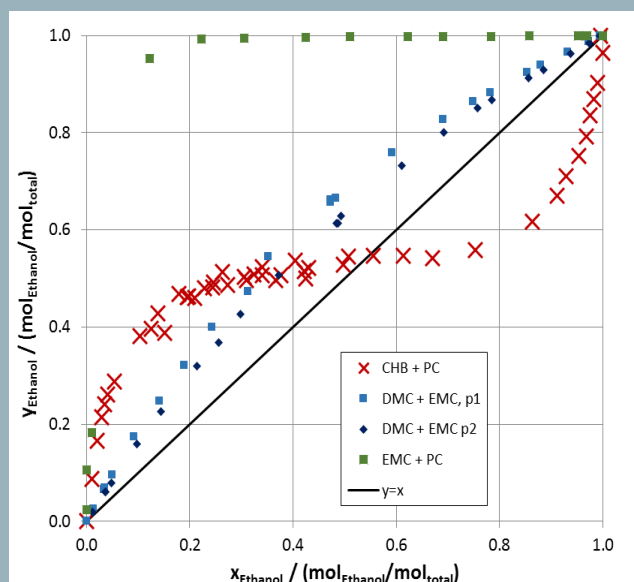


## Equipment and Conditions

- Glas apparatus for measurement in vacuum and pressure, 1...3500 mbar
- Active mixing in evaporator
- Measurement and visualization of temperature and pressure
- Accuracy:  $T \pm 0.03 \text{ K}$ ,  $p_{\text{vacuum}} \pm 1 \text{ mbar}$ ,  $p_{\text{pressure}} \pm 1 \text{ mbar}$

## Experiences

- VLE 2-Methyl-2-butanol / 2-Methyl-1-propanol at 20 ... 950 mbar
- Dimethylcarbonate, Ethylmethylcarbonate, Propylencarbonate, Ethylcarbonate, Cyclohexylbenzene: Vapor pressures and VLE data at 40mbar



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