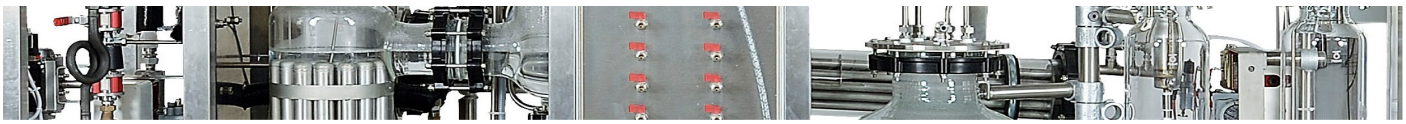

Pulsed liquid liquid extraction

Référence : ELL/4000

Study of pulsed liquid liquid extraction process in a packed column

Continuous process

GENERAL SPECIFICATIONS

- Gear pumps SS/PEEK head, with integrated safety valve.
- Glass decanter with heavy phase outlet, light phase feeding and column draining.
- Glass column, packing of Raschig glass rings.
- Glass decanter with light phase outlet, heavy phase feeding and column vent.
- Pneumatic pulsator, PTFE bellows, double effect cylinder, stroke and frequency control.
- Inter-phase level setting system by lateral crosshead, setting from the ground.
- 2 float flowmeter.

Dim : 125 x 70 x 240 cm – 100 kg
SS tubular framework 40 x 40mm

Categories: Chemical processing Educational Engineering Extraction

Reference: ELL/4000

DESCRIPTION

Extraction process

Liquid-liquid extraction is a fundamental material transfer operation based on the varying solubility of the

components of a mixture. It entails extracting a compound from a solution (solute dissolved in a diluent)

by selective transfer to a second liquid (solvent), non-miscible with the first and with different density.

A pneumatic pulsator, allows to pulse the liquid in the column, increasing the contact between the

two phases and the mass transfer from one to another.

Study a continuous liquid-liquid extraction process

Determine operating conditions

Determination interphase level

Apply a ternary phase diagram

Mass balance

Determination of the efficiency of the column by defining the HTU and NTU

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