



**ROUSSELET
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ROUSSELET CENTRIFUGATION GROUP

LIQUID/LIQUID EXTRACTION PROJECT QUESTIONNAIRE

1. GENERALITIES

Company or client identification

Company

Phone

E-mail

Fax

Address

Name of the project leader

Name of the writer

Compound to be valorised

Please attach a process flow diagram to this questionnaire

A liquid/liquid extraction process may include several operations (extraction, washing, one or more selective back-extractions, solvent regeneration, etc.).

For each operation implemented, complete, if possible, paragraphs B to E of the questionnaire.

Attach a process flow diagram of the process to the completed questionnaire

2. OPERATION TYPE

Operation

continuous

batch

Number of operating hours per day:

Maximum time allowed to process the batch:

3. CHARACTERISTICS OF THE PHASES

Phase to be extracted

Flow rate: m^3/h (kg/h) or batch: m^3

Composition:

Solute to be extracted:

Concentration :

Other components (Acids, other solutes):

Concentration:

Suspended solids: yes no

Amount:

Are they soluble in the other phase? yes no

Can they be separated
by filtration
by centrifugal decantation

Density: kg/m^3

Viscosity: cps at $^{\circ}\text{C}$

Temperature: $^{\circ}\text{C}$

Solvent

Phase ratio: m^3 solvent/ m^3 phase to be extracted m^3/h

Flow rate:

Composition:

Main components:

Concentration:

Suspended solids: yes no

4. EXISTING DATA ON THE PROCESS

Kinetics

Contact time, between the two phases, necessary to obtain equilibrium of the solute concentrations in the two phases:

With the two phases vigorously mixed, how long does it take to separate them

By gravity ?

By centrifugation ?

Conditions of centrifugation:

Temperature

Optimum temperature for carrying out the operation:

°C

Precipitate formation

Can a precipitate be formed when the two phases come into contact?

yes

no

Partition coefficient - Isothermal partition curve

Partition coefficient of the solute between the two phases:

Isothermal partition curve - Mac Cabe Thiele construction

Have they been traced?

yes

no

Please attach them to the questionnaire.

Theoretical number of floors corresponding to the desired results of the operation:

Pilot or industrial scale experience

Has the process already been studied at a pilot or industrial scale?

yes

no

Can you attach information about the installation and the results achieved to the questionnaire?

5. INSTALLATION

Materials

Compatible materials of construction for parts in contact with both liquid phases:

Metals (stainless steel, alloy, metal)

316 L

Hastelloy C or B

Titanium

304 L

Plastics

Polypropylene

Polyethylene

Pvdf (Kynar)

Other materials (please specify):

Seals, O-rings, lip seals:

Installation

The extractor shall be installed in an explosion-proof area: yes no



HEADQUARTER

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