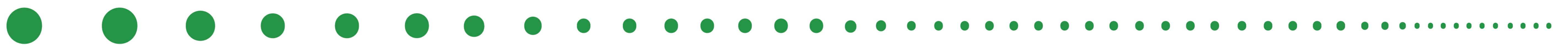


Integrated Reaction and Separation

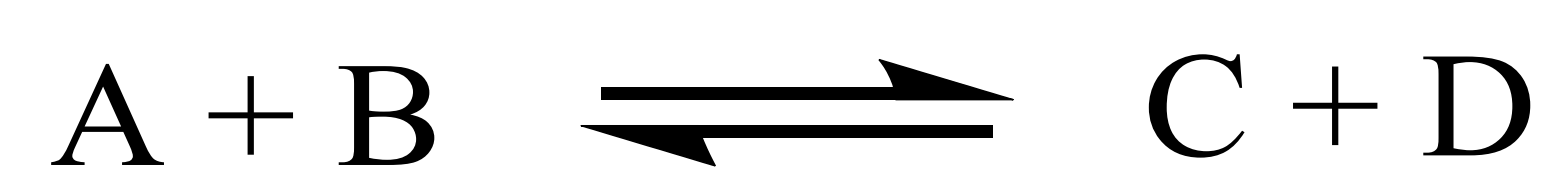
2nd wave project proposal



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Key principle:

In situ product removal to



a) shift equilibrium



b) improve selectivity



By in situ product removal, processes with low conversions and selectivities can be improved.

Examples:

Three reaction classes have been selected, each with their own characteristics

Poly condensations → high viscosity is specific issue; removal of small condensation products

Hydrogenations and dehydrogenations → molecules in mixture are very similar

Approach:

Selection of a separating agent based on properties of the compounds in the mixture

Selection of a technology based on reaction conditions

Status:

On 9 september, the classes of reactions above have been identified as interesting

Currently: working on project definition, including definition of state-of-art and benchmarking

Aim: project definition by the end of 2011, start project Q3 2012