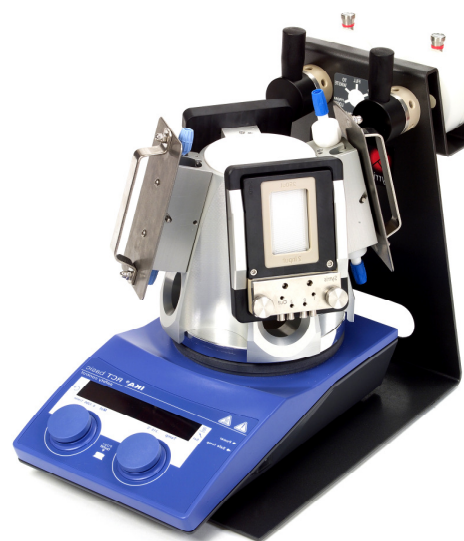




10 Reasons why Chemists buy FRX & how to avoid washing up – for ever!!!

Why Chemists are using flow microreactors for bench synthesis are identified

- Wide temperature range**
 - High temperature** - reactions can be forced to completion in the flow microreactor by routinely working above the boiling point of the solvent, e.g. acetonitrile at 180 °C
 - Low temperature** – reactions can be rapidly cooled and kept cold without any supervision by the chemist, e.g. -15 °C
- Faster reactions** – Flow microreactors allow reaction times to be reduced to 2 minutes by superheating
- No scale limitations** – a microreactor can synthesize milligrams, grams or kilograms. The longer you leave the system flowing then the more material you will make (unlike a microwave)
- Quick reaction evaluation**– a flow microreactor allows a 'quick look and see reactions' using 1 mg of material in a 2 minute reaction. Very quickly evaluate the optimum temperature, reaction time and reagent stoichiometry saving time and valuable starting material
- Reproducibility** – reactions carried out in a flow microreactor using the same materials give the same yield all the time, and is not chemist dependent
- Highly reactive/hazardous reagents** – reactions such as nitration, epoxidation, metallation etc are safely carried out in a flow microreactor, even at high temperature and concentration – make over 600 g overnight in a 1 ml reactor
- No scale up issues** – a flow microreactor will give an identical reaction if synthesizing milligrams, grams or kilograms of material
- Solid phase reagents** – you can flow through a packed bed of solid phase reagents, catalysts, scavenger etc in a flow microreactor system
- Reaction control and selectivity** – reactions carried out in microreactors are more selective than 'batch' reactors due to the very high level of control of reaction temperature, reaction time and stoichiometry - allowing the chemist to maximize yield and minimize impurities
- Aqueous work-up** – as soon as the product is formed it can undergo an automatic aqueous workup
- Dirty glass ware** - you will never need to put your flow microreactor in the sink, dishwasher or send for cleaning



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