

Ex	Description	Chapter
1	Atom economy maleic anhydride routes	Green chem
2	Suzuki coupling green metrics	Green chem
3	Sulfonation green metrics	Green chem
4	Phenol manufacturing processes comparison	Green chem
5	Hydroformylation energy intensity	Green chem
6	Microchannel single to multichannel	Miniaturization
7	Catalytic microchannel	Miniaturization
8	Circular monochannel	Miniaturization
9	Loop reactor	Batch-to-continuous
10	Hydroperoxide (SDR, HEX, COBR) - requires Matlab	Batch-to-continuous
11	Calculate ATU in rotating packed bed	Process intensification
12	Thin-film spinning disk reactor	Process intensification
13	COBR	Process intensification
14	Total segregation in CSTR	Effect of mixing on reaction
15	Villermaux-Dushman in cylindrical channel	Effect of mixing on reaction
16	Second order reaction - microchannel in engulfment regime	Mixing in microchannels
17	Segregation 2nd order reaction loop reactor	Effect of mixing on reaction
18	Ethylacetate hydrolysis in square microchannel	Mixing in microchannels
19	RTD in cylindrical capillary	RTD in microchannels
20	Bo in fixed bed vs empty bed	RTD in microchannels
21	Calculate U in microreactor	Heat transfer in microreactors
22	Calculate tube diameter for stable operation	Heat transfer in microreactors
23	Calculate ΔT_{ad} and segment lengths for multi-injection reactor	Heat transfer in microreactors