

Solid phase: Introduction, Synthesis in solid phase. Solid supports, Merrifield Resins, Hydroxy Resins. Linkers/spacers: Acid labile linkers, Base labile linkers, Photo labile linkers, Safety catch linkers, Traceless linkers and cyclative cleavage linkers. Solid phase synthesis – advantages and disadvantages. Reaction monitoring of solid phase synthesis – Destructive and non-destructive reaction monitoring.

Application/examples of the utility of solid phase resins. Combinatorial synthesis and combinatorial chemistry – Introduction, combinatorial synthesis in solution phase and solid phase – examples, libraries on solid phase, mix and split – Introduction examples and applications. Instrumental automation and testing. Purification – comparison of solution phase and solid phase purification.

TEXT BOOKS/REFERENCES:

1. Bing Yan, “*Analysis and Purification Methods in Combinatorial Chemistry*”, WileyInterscience, 2003.
2. Pierfausto Seneci, “*Solid Phase Synthesis and Combinatorial Technologies*” WileyInterscience, 2000.
1. Steven A. Kates and Fernando Albericio, “*Solid Phase Synthesis – A Practical Guide*”, Taylor & Francis Ltd, 2000.