



# Spectrochem Instruments Pvt. Ltd.

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## List of Projects for Biotechnology

1. Design a bio- reactor : Study of variables
2. Design a bio- reactor - impellor design for specific products
3. Design a bio- reactor - spager design and study of aeration efficiency.
4. Design a bio- reactor - effect of baffles, width to depth ratio and distance from wall:
5. Design a bio- reactor - to study the influence of aspect ratio and placement of various sensors.
6. Design of bioreactor - specific for effective mass transfer
7. Design a bio- reactor for product optimization
8. Design a bio- reactor – For effective heat transfer
9. Design a bio- reactor - for plant shoots growth.
10. Design a bio- reactor - For root growth reactor:
11. Determine the oxygen up take by immobilized cells or enzymes in a Bio-reactor
12. To convert glucose to ethanol using zymomonas mobiles – optimize parameters for a 1 lit. vessel.
13. Design a bio-reactor: to under stand the intricacies of feed batch operation of a mix reactor.
14. \*Design a bio- reactor - for continuous operation
15. Operation of more than one bioreactor in a cascade:
16. Design a ' Chemostat' with cell recycle:
17. Batch production of aspartic acid using cell bound enzyme:
18. Bio-processing - the effect of reaction efficiency :
19. Design a bio- reactor - for simultaneous two parameter control:
20. Design a bio- reactor - to determine the reaction rate in a bio-process