

MIO 105-P EXTREMOPHILIC MICROORGANISMS [P]

Practical Course Credit : 1

Contact Hours : 30

1. Isolation of thermophiles, halophiles, alkaliphiles, and anaerobes.
2. Tolerance of bacterial culture to temperature.
3. Detection of osmolytes from halophilic culture.
4. Buffering capacity of alkaliphiles.

References (Composite list for theory and practicals):

1. Brock, T. D., Thermophilic Microorganisms and Life at High Temperatures, Springer, New York.
2. Horikoshi, K. and Grant, W. D., Extremophiles-Microbial Life in Extreme Environments, Wiley, New York.
3. Ventosa, A., Nieto, J. J. and Oren, A. (1998) Biology of moderately halophilic aerobic bacteria. Microbiology and Molecular Biology Reviews, 62, 504–544.
4. Rainey, F. A. and Oren, A., Extremophile Microorganisms and The Methods to Handle Them. In: Extremophiles, Methods in Microbiology, Vol. 35, Elsevier, Amsterdam.

