Chapter-8

Photo Plates
PLATE I

Sample collection sites from Lonar lake (adopted from Joshi et al. 2007)
PLATE 2
Sample Collection
PLATE 3
Discussion during sample collection with Mr. Avinash Pathak (Deputy Collector Dist. Jalna)
PLATE 4
Sampling Bottles
PLATE 5
Measurement of pH

PLATE 6
Measurement of Temperature
PLATE 7
Filtration of Lake Water samples

PLATE 8
Filtration for Suspended solids

PLATE 9
Evaporation for Dissolved solids
PLATE 10
Total alkalinity

PLATE 11
Dissolved oxygen

PLATE 12
Titration for alkalinity

PLATE 13
Titration for alkalinity
PLATE 14

Biological Oxygen Demand

PLATE 15

Chemical Oxygen Demand
PLATE 16
Isolation of Alkaliphiles on selective media
PLATE 17

Isolation of bacterial cultures from Lonar lake water
PLATE 18

Preparation of Slants for maintenance of pure cultures
PLATE 19

Plates of selected bacterial isolates
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Morphological Identification of Isolates (Staining Preparation)

PLATE 21
Morphological Identification of Isolates by Microscope
PLATE 22
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Methyl Red Test

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PLATE 28
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PLATE 29

Casein Hydrolysis Test
PLATE 30
Cellulose Degradation Test

PLATE 31
Lipid Hydrolysis Test
PLATE 32

Gelatin Hydrolysis Test
PLATE 33
Oxidase Test
PLATE 34
Antibiotic Sensitivity Test
PLATE 35

Agarose gel pictures showing PCR band patterns of isolates generated with F and R primers

M = Molecular markers

1 to 34 = DNA fragments from Isolates KBDL1 to KBDL34
PLATE 36

Alkaline Protease Production

PLATE 37

Protease Assay

PLATE 38

Effect of pH on activity of alkaline protease
PLATE 39

Effect of Temperature on activity of alkaline protease

PLATE 40

Effect of inhibitors and metal ions on protease activity
PLATE 41

Decomposition of gelatinous coating in X-ray film by using crude protease from isolate KBDL4 and KBDL19

Enzyme Treatment  Control (Water)

PLATE 42

Alkaline Amylase Production
PLATE 43

Hydrocarbon Degradation Medium

PLATE 44

Purification of Alkaline Amylase by SDS

M- marker, S1- Sample1, S2- Sample2, S3- Sample3
PLATE 45

Length and width of selected isolates (KBDL16 and KBDL23) were determined by phase contrast microscopy.

KBDL16

KBDL23
Studies on Microbial Diversity of Lonar Crater Lake, India.

Our Research Group Visit to Lonar Soda Lake On 20th Dec 2009