LIST OF TABLES

1. Microorganisms involved in bioremediation of SDS
2. Composition of newly formulated SDS based SBS medium
3. Scheme depicting PCR conditions of 16S rDNA typing
4. Scheme depicting sequencing PCR conditions
5. Screening of 15 isolates utilizing SDS as carbon source
6. Morphological and physiological characteristics of the selected isolate S15
7. Biochemical characteristics of S15
8. Pairwise distance between the selected strains in the phylogenetic tree
9. Optimization of various parameters influencing SDS degradation by *Pseudomonas aeruginosa* S15 for a period of 3 days
10. Alkylsulphatase Assay
11. Range finding test of SDS on germination of rice seedlings
12. Definitive test of plant seedlings exposed to SDS
13. Estimated LC/EC Values and Confidence Limits of plant seedlings
14. Range finding test of SDS toxicity on Grass Cap
15. LC$_{50}$ analysis as per USEPA probit analysis software after 96 hours of exposure of Grass carp to SDS.
16. Microbial count of bacteria of fish exposed to sublethal SDS concentrations
17. Isolation of predominant microflora from SDS treated fish
18. Composition of Siegmund Wagner medium
19. Optimization of various parameters influencing SDS based rhamnolipid production by *Pseudomonas aeruginosa* S15
20. Different rhamnolipid congeners produced by S15 as detected by Fast Atom Bombardment Mass Spectroscopic Analysis
21. Emulsification index of purified biosurfactant
22. Extent of biofilm formation by S15 in different medium
23. Comparison of rhamnolipid yield utilizing different carbon sources to that of SDS
24. Plasmid Curing
25. PCR conditions for amplification using *sdsA* specific primers
26. PCR conditions for amplification using *sdsB* specific primers
27. Ligation reaction of PCR amplicon with pGEMT- easy vector
28. Partial digestion reaction mixture
29. Ligation reaction of S15 and pUC 19 digest
30. Curing of *Pseudomonas aeruginosa* S15 plasmid by different curing agents
31. Antibiotic Resistance Pattern of S15, DH5α and Transformed DH5α
32. SDS degradation potential of *Pseudomonas aeruginosa* S15, cured
   *Pseudomonas aeruginosa* S15, transformant *Escherichia coli* DH5α and nontransformant *E.coli* DH 5α as per alkylsulfatase assay
33. SDS degradation analysis of bacterial isolates by MBAS assay
34. Details on the various characteristics of the sequences and their protein domains