

Figure 2.2.1. Reactor set-up for reactor sets A, B and C. Set A: no nutrient addition to the soil; Set B: 50  $\mu$ M nitrate and 150  $\mu$ M phosphate concentrations and Set C: dried sewage sludge cake added to soil.



Figure 2.2.2. Wastes from anaerobic reactors A, B and C after run completion. (I) Degraded organic matter (fruit, vegetables, meat, etc.). (II) Paper content. (III) Plastic content.

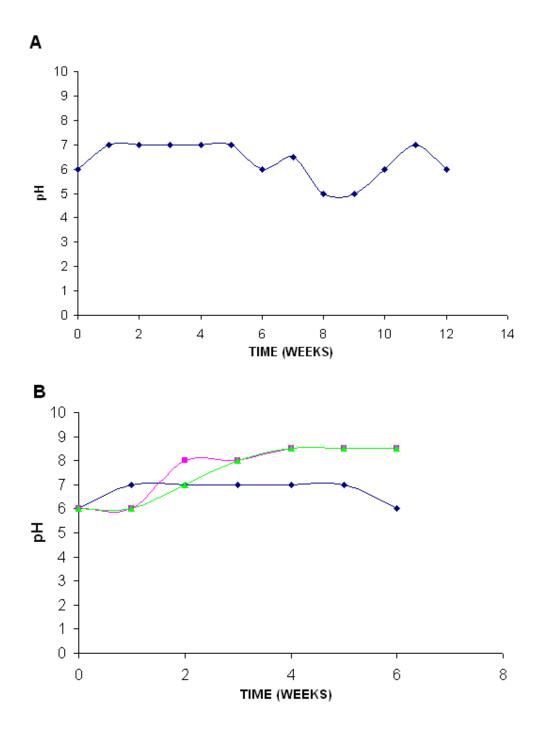


Figure 2.2.3. pH profile of leachate from anaerobic reactors Set A (A) and Sets A , B and C , in comparison (B).

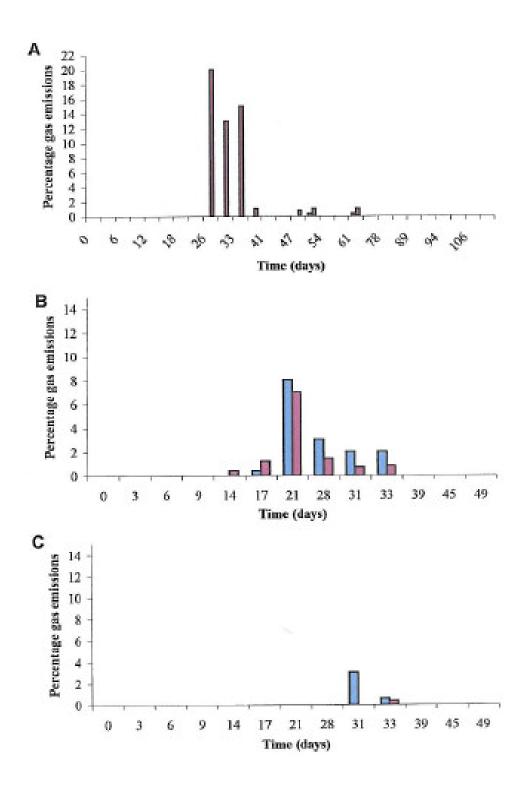


Figure 2.2.4. Gas chromatography analysis of methane  $(CH_4)$  and carbon dioxide  $(CO_2)$  of gas samples from anaerobic reactor Set A (A) and Set B (B) and Set C (C) in comparison.

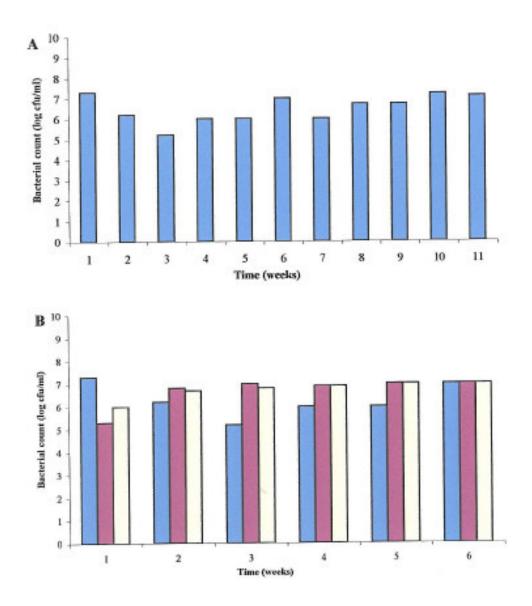


Figure 2.2.5. Counts (log cfu/ml) of bacteria associated with leachate samples from anaerobic reactor Set A only (A) and Sets A , B and C , in comparison (B).

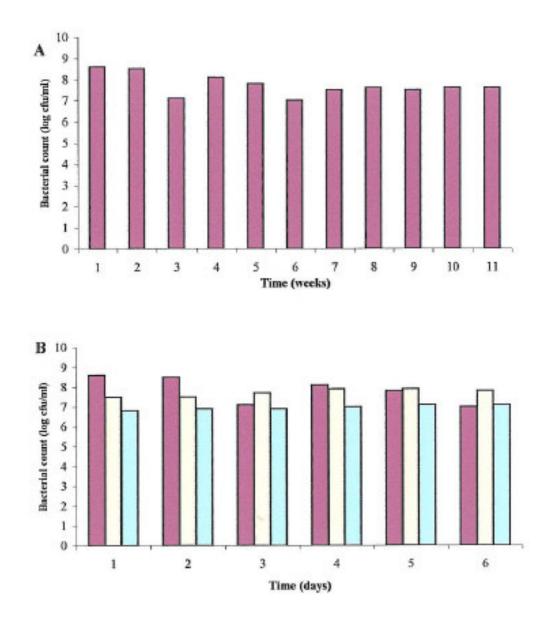


Figure 2.2.6. Counts (log cfu/ml) of bacteria associated with soil on TYG media from aerobic reactors A  $\square$  (A) and in comparison A  $\square$  , B  $\square$  and C  $\square$ .

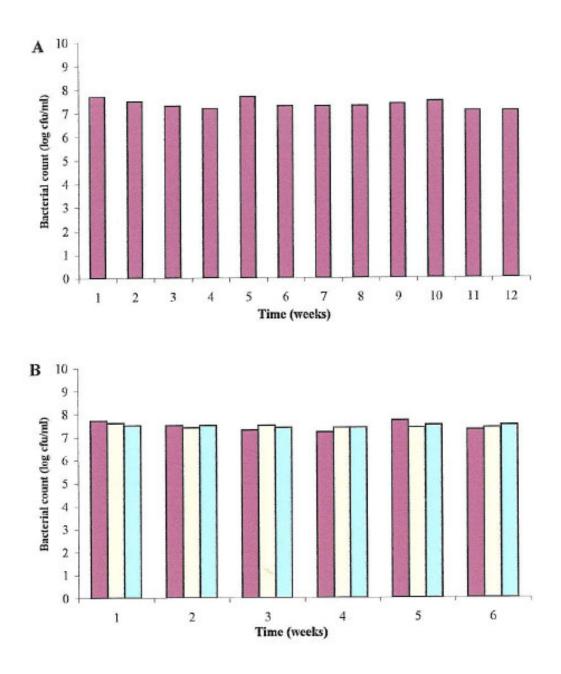


Figure 2.2.7. Counts (log cfu/ml) of bacteria associated with soil samples on NMS media from aerobic reactor Set A only (A) and Sets A , B and C , in comparison (B).

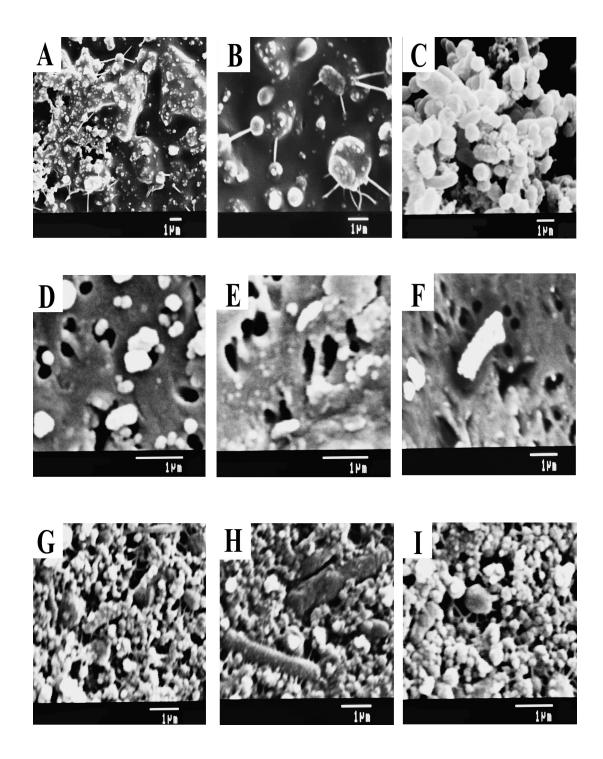


Figure 2.2.8. Scanning electron micrographs of leachate from anaerobic reactor sets A (A-C), B (D-F) and C (G-I). 'Web-like' strands are shown associated with cells (A, B, G-I). Cocci and rod shaped cells are shown to be present in all 3 reactor sets.

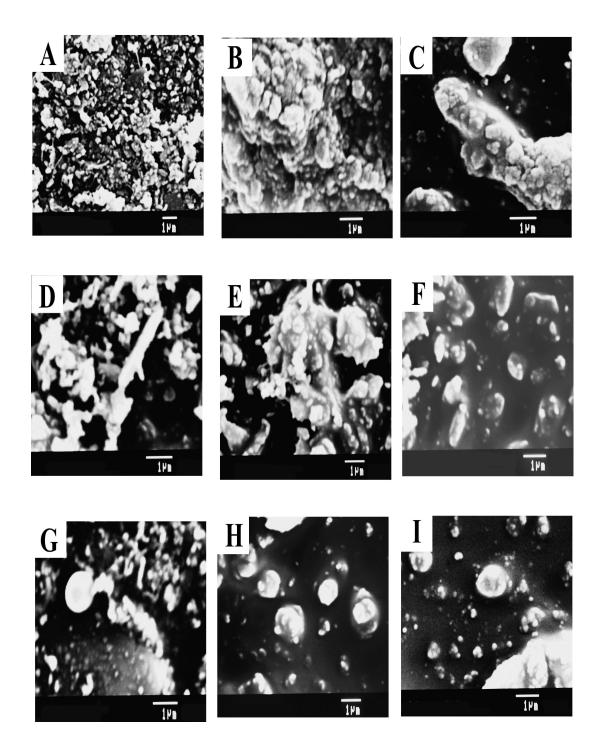


Figure 2.2.9. Scanning electron micrographs of soil from aerobic reactor sets A (A-C), B (D-F) and C (G-I). Cocci and rod shaped cells are shown in all reactor sets. Web-like' strands are illustrated for Set B soil (D-E).