List of Tables.

Chapter: 2

2:1 Comparison of flotation cells.
2:2 The fiber carry over loss (float reject) of different flotation units.
2:3 Relationship among consistency, brightness and fiber carryover loss (float reject).
2:4 Physical and optical characteristics of de-inked pulp.

Chapter: 3

3:1 Effect of pulping alkalinity on brightness.
3:2 Effect of pH on brightness of post flotation pulp.
3:3 Variation of brightness with NaOH and H₂O₂.
3:4 The relationship among peroxide consumption, brightness and NaOH added.
3:5 Variation of brightness with peroxide.
3:6 Pulper and post flotation brightness Vs DTPA dosage.
3:7 Variation of pulper and post flotation brightness with silicate dosage at 0% DTPA.
3:8 Variation of pulper and post flotation brightness with silicate dosage at 0.4% DTPA.
3:9 Variation of pulper and post flotation brightness with sodium alginate dosage.
3:10 Comparison of synthetic de-inking surfactants
3:11 Comparison of natural de-inking surfactants.
3:12 Variation of brightness with yield loss.

Chapter: 4.

4:1 Variation of brightness gain with NaOH at 1.0% $H_2O_2$.

4:2 Effect of $H_2O_2$ on brightness gain.

4:3 The relationship between pH and hydrosulphite concentration on brightness.

4:4 Variation of brightness with hydrosulphite.

4:5 Comparison of bleaching of FAS and hydrosulphite.

4:6 Comparison of hydrosulphite and bisulphite bleaching.

Chapter: 5.

5:1 Results of analysis of process water discharge and liquid effluent.

5:2 Composition of sludge.

5:3 Chemical composition of ash and clay.

5:4 Mineral components in de-inking sludge.
List of figures

Chapter: 2

Fig.I. Single chamber flotation cell

Fig.II. Double chamber flotation cell

Fig.III. Double chamber flotation cell with bristles

2:1. Comparison of flotation cells

2:2. Fiber carry over loss of flotation cells

2:3. Relationship among consistency, brightness and float reject

Chapter: 3

3:1. Effect of pulping alkalinity on brightness

3:2. Effect of pH on brightness of post flotation pulp

3:3. Variation of brightness with NaOH and H₂O₂

3:4. The relationship among peroxide consumption, brightness and NaOH added

3:5. Variation of brightness with peroxide

3:6. Pulper and post flotation brightness Vs DTPA dosage

3:7. Variation of pulper and post flotation brightness with silicate dosage at 0% DTPA

3:8. Variation of pulper and post flotation brightness with silicate dosage at 0.4% DTPA

3:9. Variation of pulper and post flotation brightness with sodium alginate dosage
3:10. Comparison of synthetic de-inking surfactants
3:11. Comparison of natural de-inking surfactants
3:12. Variation of de-inked brightness with yield loss

Chapter: 4

4:1. The relationship between bleaching chemicals on brightness gain
4:2. Effect of $\text{H}_2\text{O}_2$ on brightness gain
4:3. The relationship between pH and hydrosulphite concentration on brightness.
4:4. Variation of brightness with hydrosulphite
4:5. Effect of FAS and hydrosulphite on brightness