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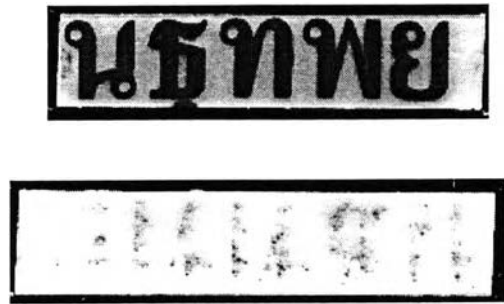
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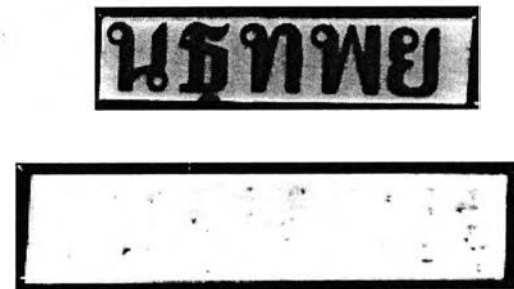
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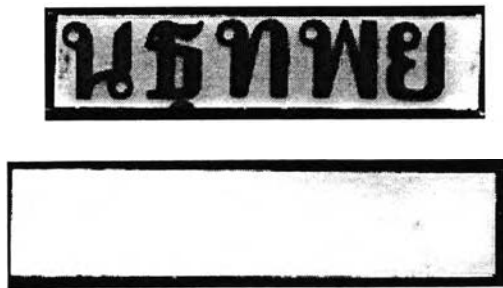
Figure A.1 Solvent-based Ink Printed HDPE Bottles



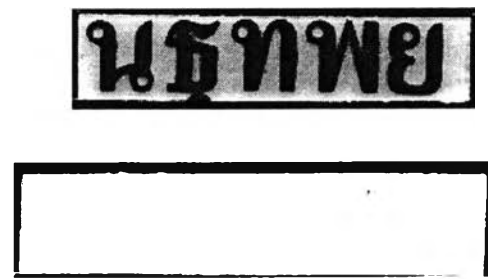
(a)



(b)



(c)



(d)

Figure A.2 Comparison of Printed and Deinked Plastic Surfaces Treated with 30 mM CTAB at pH 12 for (a) 15 min (b) 30 min (c) 45 min (d) 60 min Shaking Time

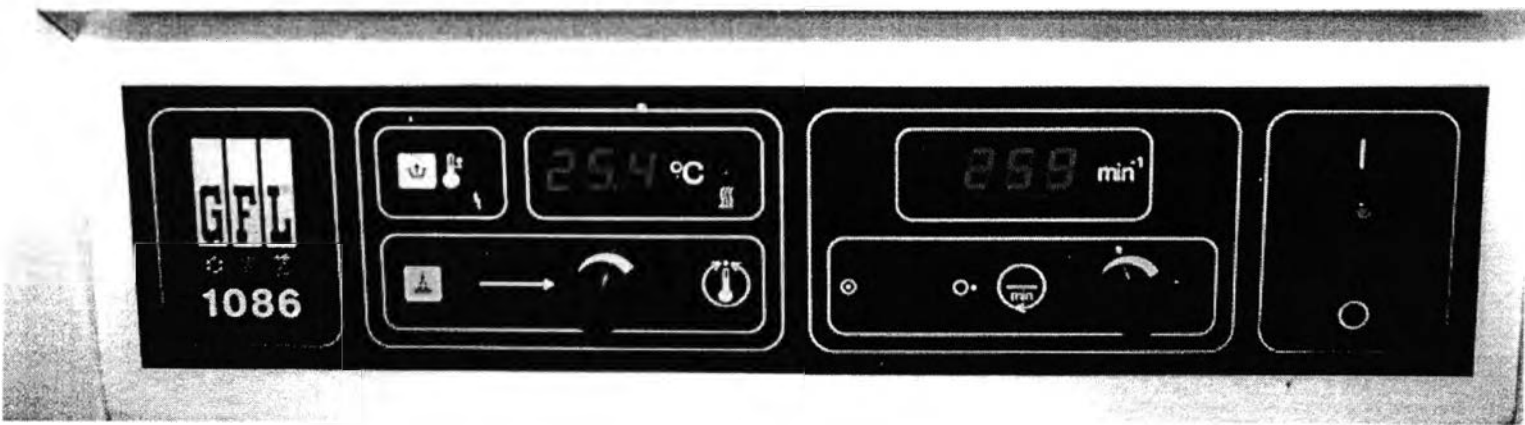
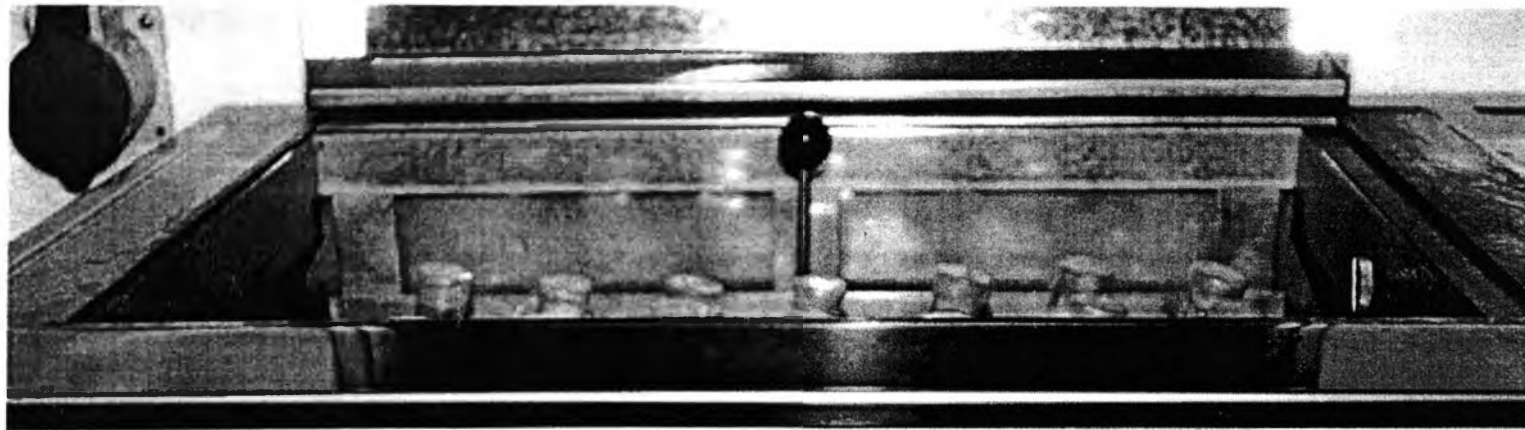


Figure A.3 Water Shaker Bath

**Table A.1 Data for Deinking Experiments with Cationic Surfactant (CTAB)**

Size of Plastic pcs. = 1 × 4 cm

Temperature = 25 °C

Sample No.	CTAB Concentration (w%)	pH	Abrasive (pieces)	Soaking Time (hr)	Shaking Time (hr)	Weight Difference	Degree of Deinking (Visualization)
1	1	10	No	1	2	.1274-.1274=0	No Deinking
2	1	10	No	1	2	.1179-.1179=0	No Deinking
3	1	10	25	1	2	.1326-.1326=0	No Deinking
4	1	10	25	1	2	.1372-.1372=0	No Deinking
5	1	11	No	1	2	.1261-.1257=.0004	Partial Deinking
6	1	11	No	1	2	.1247-.1241=.0004	Partial Deinking
7	1	11	25	1	2	.1392-.1388=.0004	Partial Deinking
8	1	11	25	1	2	.1101-.1097=.0004	Partial Deinking
9	1	12	No	1	2	.1367-.1361=.0006	Complete Deinking
10	1	12	No	1	2	.1369-.1363=.0006	Complete Deinking
11	1	12	25	1	2	.1092-.1086=.0006	Complete Deinking
12	1	12	25	1	2	.1262-.1256=.0006	Complete Deinking

**Table A.2 Data for Deinking Experiments with Anionic Surfactant (SDS)**

Size of Plastic pcs. = 1 × 4 cm

Temperature = 25 °C

Sample No.	SDS Concentration (w%)	pH	Abrasive (pieces)	Soaking Time (hr)	Shaking Time (hr)	Weight Difference	Degree of Deinking (Visualization)
1	1	10	No	1	2	.1313 - .1313 = 0	No Deinking
2	1	10	No	1	2	.1365 - .1365 = 0	No Deinking
3	1	10	25	1	2	.1345 - .1345 = 0	No Deinking
4	1	10	25	1	2	.1239 - .1239 = 0	No Deinking
5	1	11	No	1	2	.1356 - .1356 = 0	No Deinking
6	1	11	No	1	2	.1250 - .1250 = 0	No Deinking
7	1	11	25	1	2	.1149 - .1149 = 0	No Deinking
8	1	11	25	1	2	.1288 - .1288 = 0	No Deinking
9	1	12	No	1	2	.1293 - .1292 = .0001	No Deinking
10	1	12	No	1	2	.1430 - .1430 = 0	No Deinking
11	1	12	25	1	2	.1220 - .1220 = 0	No Deinking
12	1	12	25	1	2	.1283 - .1282 = .0001	No Deinking

**Table A.3 Data for Deinking Experiments with Nonionic Surfactant (NP(EO)<sub>10</sub>)**

Size of Plastic pcs. = 1 × 4 cm

Temperature = 25 °C

Sample No.	NP(EO) <sub>10</sub> Concentration (w%)	pH	Abrasive (pieces)	Soaking Time (hr)	Shaking Time (hr)	Weight Difference	Degree of Deinking (Visualization)
1	1	10	No	1	2	.1296 - .1296=0	No Deinking
2	1	10	No	1	2	.1162 - .1162=0	No Deinking
3	1	10	25	1	2	.1396 - .1395=.0001	No Deinking
4	1	10	25	1	2	.1231 - .1231=0	No Deinking
5	1	11	No	1	2	.1180 - .1180=0	No Deinking
6	1	11	No	1	2	.1320 - .1319=.0001	No Deinking
7	1	11	25	1	2	.1335 - .1335=0	No Deinking
8	1	11	25	1	2	.1337 - .1336=.0001	No Deinking
9	1	12	No	1	2	.1180 - .1179=.0001	No Deinking
10	1	12	No	1	2	.1343 - .1342=.0001	No Deinking
11	1	12	25	1	2	.1353 - .1352=.0001	No Deinking
12	1	12	25	1	2	.1344 - .1342=.0002	No Deinking



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