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**STEAM-EXPLOSION OF WASTEPAPER
AS A PULPING PROCESS**

BY

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A Thesis submitted in fulfillment of
The Bachelor of Science Degree

Faculty Advisor: Dr. Ellsworth Shriver

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Kalamazoo, Michigan
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ABSTRACT

Recycling is a major concern in the nineties, and therefore wastepaper recycling is also in the spotlight. This concern has made it necessary to explore new ways to handle wastepaper. Steam-explosion is a possible pulping process that has the capabilities of handling grades that previously have not been used.

The effects of steam-explosion on 100% laser and Xerox printed paper were studied and the resulting optical properties determined. Chemical addition, residence time, pressure, and dispersant level were varied in the steam-explosion trials. A Morton Slush Maker was used to simulate conventional hydra-pulping for comparison with the steam-explosion pulp.

Steam-explosion removes the toner from laser and Xerox printed paper and disperses these particles in the pulp. Sodium hydroxide used during steam-explosion pulping reduces the toner particle size and when used with sodium sulphite pulp brightness is also improved.

KEYWORDS: Steam-Explosion, Sodium Hydroxide, Sodium Sulphite, Toner, Dispersant, Image Analysis, Brightness

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INTRODUCTION

Recycling is a major part of everyone's lives in the nineties. Due to the decline of available landfill space and the fact that paper makes up the majority of solid waste, paper recycling is presently in the spotlight. This is why it is necessary to find new ways and improve conventional processes of paper recycling. Steam-explosion is a new pulping process that will pulp grades of paper that have usually been considered straight waste. Steam-explosion can be used without the addition of pulping chemicals and this makes the process quite environmentally friendly.

BACKGROUND

The process of steam-explosion originated with the Masonite Process. In 1927, W. H. Mason published a paper on the steam-explosion of wood chips for the manufacture of hardboard¹. This paper describes the original steam-explosion process which was batch style. Since 1927, steam-explosion has been used for processes varying from bio-mass conversion to a possible alternative to Chemi-Thermo-Mechanical Pulping (CTMP)². In bio-mass conversion, all sorts of organic material, such as tree limbs and other foliage, is processed using steam-explosion. The steam-explosion can generate a product suitable for cattle feed or it can make a product desirable for Ethanol production by means of enzyme hydrolysis. For the cattle feed, very little destruction is done to the bio-mass, but for the Ethanol

production the bio-mass must be converted to a product which can be separated into fractions of cellulose, hemicellulose and lignin. Steam-explosion was then examined as an alternative to CTMP for high-yield pulp production at reduced energy costs. The pulp obtained from steam-explosion had a higher tensile strength and was produced with as much as 25% less energy³. Within the past 3 years, steam-explosion has been examined for potential in the area of recycled paper, due to again the possibility of energy savings over processes currently used.

Steam-Explosion

Steam-explosion can be done using two different digester processes. These processes are batch and continuous pulping. They both consist of basically the same main principals. First the prepared feed is introduced to the digester. Then the desired pressure is held for the required cook time. Finally the pulp exits to atmospheric pressure and is separated from the steam.

Batch Pulping

The batch process uses a pressure vessel, equipped with a blow valve, also called a Masonite Gun¹. The process starts by pre-steaming the incoming chips with the blow steam. The gun is then loaded with these chips and sealed. The pressure in the gun is raised to 350 psi with saturated steam, yielding a chip temperature of 375°F. This pressure is held for 30-40 seconds at which time the pressure is raised to 1000 psi. The

1000 psi is held for 5 seconds and then the blow valve is released. Upon releasing the blow valve the chips and steam expand into atmospheric pressure. The steam is then separated from the pulp by use of a cyclone separator. The high pressure at the end of the cook cycle is to insure a clean blow of the gun.

Continuous Pulping

In the continuous process, the digester is a pressure vessel with an auger screw running down the long axis. The paper is presteamed to moisten and aid packing, in a chip hopper. From the hopper the paper is screw fed to a piston. This piston forms a dense plug which keeps the digester sealed. Once the plug is of the proper density it is allowed to enter the digester where it expands slightly. The digester is held at 400 psi and the retention time is controlled by the auger screw speed. Then at the end of the digester another screw carries the pulp to the reciprocating blow valve. When the valve cycles open, the adjacent material is vented to atmosphere and expands while exiting the digester. This pulp is then fed to a blow tank to recover energy.

PAPER SELECTION

Steam-explosion as a process can handle furnishes varying from old news to high wet strength kraft, therefore the furnish selection for the trials was not limited by the process. While considering possible furnishes, laser and Xerox printed paper were selected for the steam-explosion

trials. Laser and Xerox printed paper are both similar printing processes differing mainly by the charge carried by the toner. The laser printed paper is now causing problems with the grade of recycled paper called computer printout (CPO). CPO originally only had paper that was printed with dot-matrix printers, and in dot-matrix printing the ink used is removed easily with methods in current use. The "ink" used in laser and Xerox printing is actually a thermoplastic toner that is fused to the sheet of paper. This toner does not readily break up in conventional pulping and is also not easily removed by cleaning processes⁴. Steam-explosion holds the possibility of removing toner from the fibers in the sheet and dispersing of the toner in the pulp suspension.

PROCEDURE

STEAM-EXPLOSION PULPING

The 100% laser and Xerox printed paper was first shred or chipped into roughly one inch square pieces. The shredding was done using a hammer mill, and therefore the fiber cutting was minimal, which is important when considering strength properties. The shredding increased the achievable bulk density because paper chips will pack more easily than whole paper sheets. Four pounds of paper chips were soaked for 5 minutes for each trial. During the presoak, chemicals and dispersants were added. The shredding allowed for even water pickup due to the increased surface area and increased fiber exposure. The water carried the pulping chemicals therefore

shredding also aided in complete chemical treatment. The sodium hydroxide (NaOH) and sodium sulphite (Na_2SO_3) were added at a rate of 2% based on dry weight. The sodium hydroxide was added to accomplish two things. First, the sodium hydroxide swells the fibers and thus allows for a complete pulping. The second benefit that sodium hydroxide yields is that it aids in the removal of toner from the fibers. The sodium sulphite has the main function of preventing the yellowing that occurs in the reaction of lignin and sodium hydroxide, giving a brighter pulp. The dispersant (BRD 288) was added at a rate of .0025% based on dry weight. According to the manufacturer (Buckman Laboratories), BRD 288 is a dispersant for the repulping and deinking of troublesome secondary fiber. When used in conjunction with laser printed office waste, BRD 288 works rapidly to disperse the toner and improve the efficiency of deinking. The use of BRD 288 in repulping can result in the reduction of caustic used or a faster cycle time in the pulper. BRD 288 is stable in the presence of alkalies and bleaches used during repulping⁵. After the presoak, the paper drained for 5 minutes to yield a final consistency of 27%. The paper was then packed into the digester and the lid was sealed. In the digester, higher bulk density improves the heat transfer through the paper plug. Figure 1 shows the digester used for the steam-explosion process. There were 32 trials performed that varied the factors of cook time, cook pressure, chemical addition, and

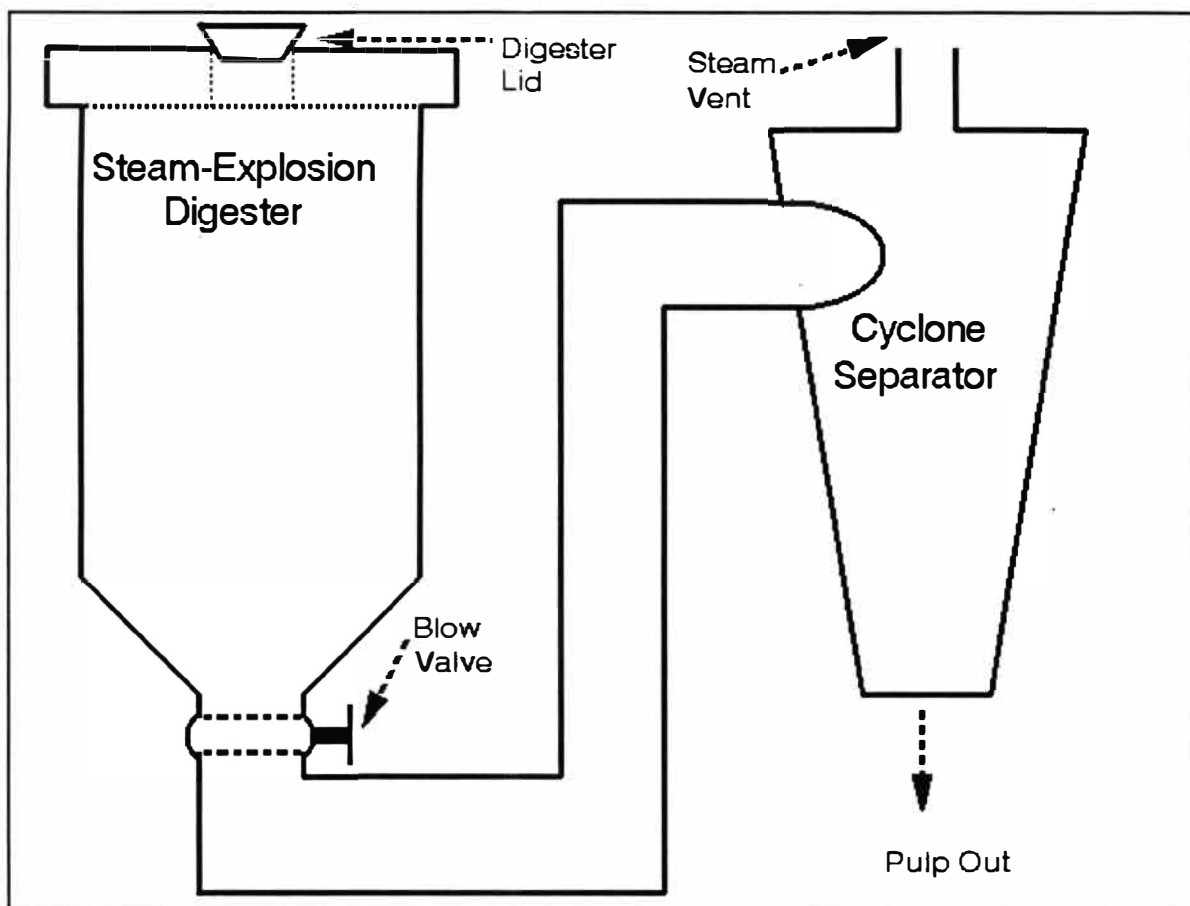


Figure 1

surfactant use. The trials included 8 trials at the four different chemical levels, 16 trials at the two pressures, 16 trials at the two cook times, and also 16 trials with and without dispersant. This layout will allow for a complete analysis of variance with interaction action analysis. The run schedule is laid out in Table 1. The typical run involved pre-steaming the paper through the rise to the cooking pressure. The hold at the cooking pressure ended with a rise to 500 psi before the digester blow. This high blow pressure was used to insure that all the material was removed from the digester and therefor avoid contamination of the next batch of

Steam-Explosion Variables

Number	Chemical Level	Pressure	Time	Dispersant Level
1	0%	200 PSI	2 Min	0%
2	2% NaOH	400 PSI	4 Min	.25%
3	2% Na ₂ SO ₃			
4	2% Both			

Run Layout: 32 Runs

Run 1:C1;P1;T1;D1 Run 9:C2;P1;T1;D2 Run 17:C3;P1;T1;D1 Run 25:C4;P1;T1;D2
 Run 2:C1;P1;T2;D1 Run 10:C2;P1;T2;D2 Run 18:C3;P1;T2;D1 Run 26:C4;P1;T2;D2
 Run 3:C1;P2;T1;D1 Run 11:C2;P2;T1;D2 Run 19:C3;P2;T1;D1 Run 27:C4;P2;T1;D2
 Run 4:C1;P2;T2;D1 Run 12:C2;P2;T2;D2 Run 20:C3;P2;T2;D1 Run 28:C4;P2;T2;D2
 Run 5:C1;P1;T1;D2 Run 13:C2;P1;T1;D1 Run 21:C3;P1;T1;D2 Run 29:C4;P1;T1;D1
 Run 6:C1;P1;T2;D2 Run 14:C2;P1;T2;D1 Run 22:C3;P1;T2;D2 Run 30:C4;P1;T2;D1
 Run 7:C1;P2;T1;D2 Run 15:C2;P2;T1;D1 Run 23:C3;P2;T1;D2 Run 31:C4;P2;T1;D1
 Run 8:C1;P2;T2;D2 Run 16:C2;P2;T2;D1 Run 24:C3;P2;T2;D2 Run 32:C4;P2;T2;D1

Table 1

pulp. The steaming curves (Figures 2, 3, 4, & 5) indicate the times at which the vessel remained at certain pressures.

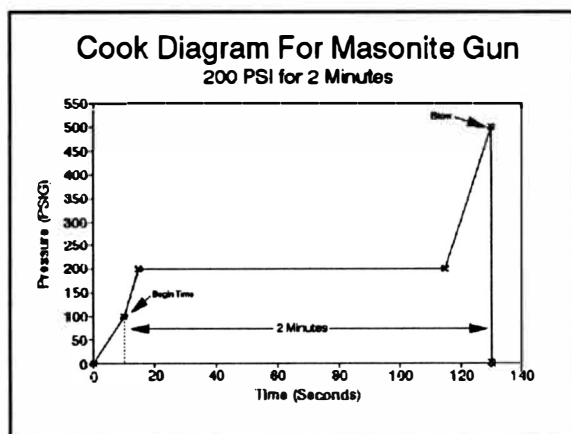


Figure 2

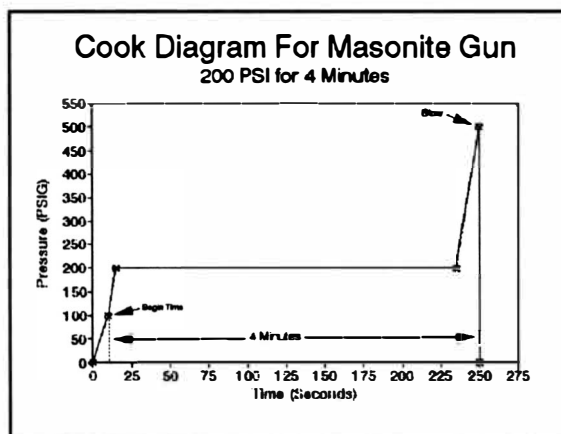


Figure 3

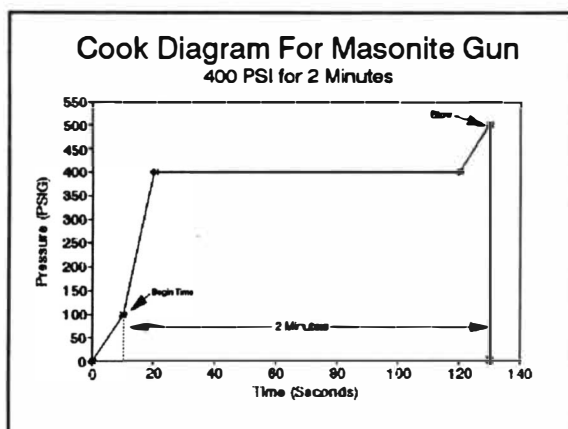


Figure 4

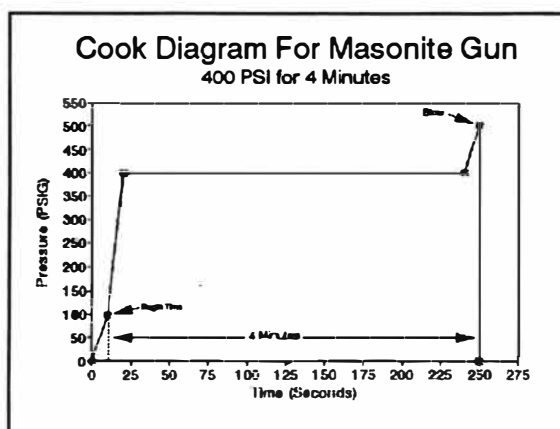


Figure 5

Once the cook time had elapsed the valve at the base of the digester was opened and the paper exploded into atmospheric pressure. The explosion removed the paper from the digester and conveyed it over to a cyclone separator where the finished pulp was collected and steam vented off.

MORTON SLUSH MAKER PULPING

The shred paper was also pulped using a Morton Slush Maker to simulate conventional hydra-pulping. The highest running capability of the slush maker is 6% consistency and this is what the machine ran at for all of the trials. The water was first added and heated by steam to 115°F. The steam was then shut off and the chemicals were added to yield the same concentrations as for the steam-explosion. Finally the paper was added and the slush maker closed. The slush maker was run for 10 minutes for each run after which the pulp was removed. The temperature had risen to approximately 120°F for all the trials by the time it was removed. During the removal of the pulp there was extra water used that diluted the pulp,

but the entire pulping took place at 6% consistency. In conventional pulping the residence time is set to a certain value that yields the desirable pulp as is the temperature. This reasoning is what lead to the decision to run the slush maker at 115°F and for 10 minutes. The only variables used in the slush maker pulping were chemical and dispersant. The trials were done in an 8 run layout such that there were 2 runs at each chemical level and 4 runs with and without dispersant.

TESTING

The pulp produced was tested using brightness and image analysis to determine the extent of pulp contamination by toner. Image analysis has potential for measuring contaminants in recycled wastepaper pulp more accurately, more reproducably, and more easily than conventional visual methods⁶. Image analysis can give toner particle size and distribution, but the image analysis cannot judge how this amount of toner will affect the pulp appearances. The eye cannot see particles below 50 microns, but these still affect the brightness and therefore are accounted for by the use of brightness as a measurement. There were two brightness pads and two image analysis pads made for each run. From these pads a total of 30 image fields and 10 brightness fields were examined.

Brightness

Single gram Buchner Funnel pads were made for the

brightness pads. The Buchner funnel was used to insure that very little toner amount was lost in the dilution water. The pads were wet pressed in order to yield a constant density for the test and dried using a felt wrapped can drier.

Image Analysis

For the image analysis the pulp was diluted to .2% consistency. The diluted pulp was constantly agitated, even when sampling, in order to keep toner particles well mixed. Half of a milliliter of the diluted pulp was used to make the image analysis pad. The pad was drawn down onto a millipore filter pad. The pad gave a white background and the contrast necessary for the image analysis hardware. This pad was then examined under a microscope by a computer. The computer measured the area of the toner particles by the differentiation of their color. For this paper the only particles considered were the particles 50 microns and under. Though these particles only made up about 15-20% of the total toner area, the particles larger than 50 microns can be removed by screening, washing or floatation and therefor were not the main concern.

Statistical Analysis

For the analysis of the data, two types of statistical designs were examined. The first statistical method for analysis is the Plackett-Burman design. The advantage of the Plackett-Burman designs is the limited number of runs needed to evaluate large numbers of factors. The disadvantages of

Plackett-Burman designs are tied to the assumptions required to evaluate up to $(n-1)$ factors in (n) runs. The assumptions are that interactions are not strong enough to mask main effects and quadratic effects are closely related to the linear effects. The possibility of interaction effects is the reason a full factorial design was chosen. Full factorial designs are orthogonal (vertically balanced) and allow for all interactions and all main factors to be evaluated⁷.

RESULTS

The testing for pulp brightness and toner particle size was performed over a three month period. The values obtained from the brightness and image analysis tests were laid out in correlation tables for statistical analysis. The tables are located in Appendix A.

Raw data from the image analysis testing is located in Appendix B. The raw data also includes histogram plots of the average particle area versus particle count. Appendix C contains the raw data from the brightness computer.

The runs that had no chemical addition showed brightness in the range of 68.95 to 79.47, and they had average toner particle size in the range of 14.25 to 20.84 microns. Pulp that was created using 2% sodium hydroxide had brightness ranging from 72.69 to 79.16 and average toner particle sizes between 15.04 to 19.47 microns. This indicates that the sodium hydroxide reduced the toner particle size. Sodium sulphite pulp, where 2% of sodium sulphite was added, showed

brightness ranging from 75.9 to 82.15 and average toner particle size in the range of 15.59 to 21.36 microns. The sodium sulphite improved the brightness of the pulp as expected. The final runs that used a combination of 2% sodium hydroxide and 2% sodium sulphite had brightness that ranged from 77.89 to 81.01. These combination runs also showed a range of 11.4 to 19.73 microns for the average toner particle size. The fact that the toner particle size was reduced and the brightness was increased indicated that the sodium sulphite and the sodium hydroxide can be used in conjunction with each other and still receive the same benefits as when used separately.

DISCUSSION

OBSERVATIONS

The pulp made using both methods were completely pulped; there were no fiber bundles left when it was diluted for the image analysis trials. The steam-explosion pulp showed an interesting property in the action of the toner in the pulp. When the steam-explosion pulp was diluted to .2% consistency the toner immediately rose to the surface to the pulp and migrated toward the walls of the beaker. The magnetic stirrer had to be set as high as possible, without splashing, just to bring the toner particles back into the suspension so a sample could be taken. This also occurred in the making of the Buchner Funnel pads and made it hard to exactly judge the toner's influence on brightness. This effect occurred

slightly in the slush maker runs that had dispersant in them. The image analysis showed one other notable thing that the toner did during steam-explosion. The image analysis pads for the slush maker contained fibers that evidently still had toner attached to them, where in the steam-explosion pulp the toner was never attached to the individual fibers. The steam-explosion image analysis also showed what seemed to be toner particles that had agglomerated thus making larger particles. In a visual inspection through the microscope the steam-explosion seemed to remove the toner from the fibers completely.

COMPARISON

The simulation of conventional hydra-pulping with the use of a Morton Slush Maker resulted in data that looked favorable for the process of steam-explosion. Though the data for the slush maker was not used for its statistical significance, it could still be used for the comparison with steam-explosion data. The chemical free slush maker pulp had a higher brightness than steam-explosion, and image analysis results showed that steam-explosion had smaller toner particles. This shows that steam-explosion breaks up the toner into smaller particles and henceforth there are more of them. The increase in toner particles is what decreases the steam-explosion brightness. This trend follows for the sodium hydroxide where the slush maker again had the higher brightness and larger toner particles. For the sodium sulphite the reverse of the

trend is true, where the steam-explosion had the higher brightness and the slush maker had the lower toner particle size. This still follows the same explanation for the chemical free, but also the sodium sulphite has the possibility of being more effective at the high temperature of steam-explosion. The use of both sodium hydroxide and sodium sulphite produce a different result where the steam-explosion had the smaller toner particle size and the higher brightness. The cause of this is attributed to the purpose of the chemicals used and the probability that they are more effective at higher temperatures. The sodium hydroxide broke up the toner to a further extent in the steam-explosion, but the sodium sulphite was present to combat the brightness reduction caused by the sodium hydroxide reaction and the resulting brightness was higher than the slush maker brightness.

STEAM-EXPLOSION

The results from the steam-explosion runs with chemical free level are considered to be the control runs for the entire experiment, and therefore the other chemical runs are compared to the chemical free runs. For the area of image analysis, the sodium hydroxide needed an effect to be 1.75 or greater to be statistically significant. The interaction of time, pressure, and dispersant had an effect of -2.01 which indicates that the interaction significantly affected the toner particle size.

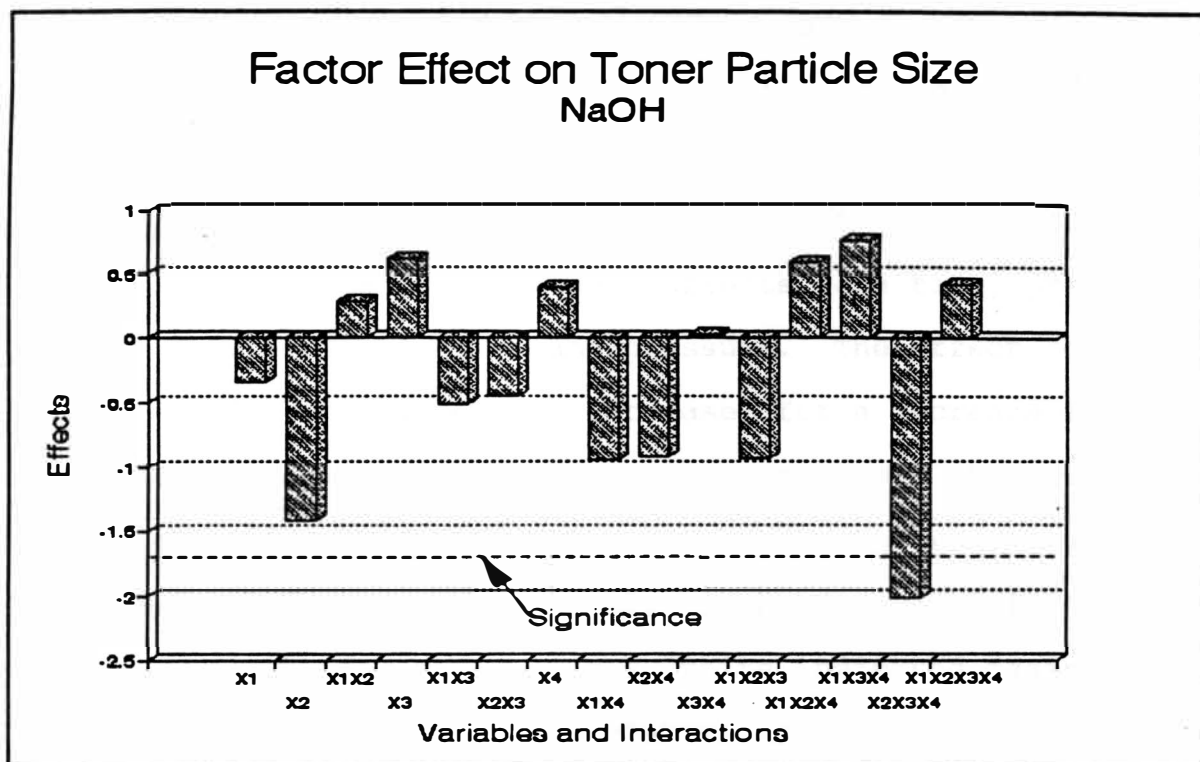


Figure 6

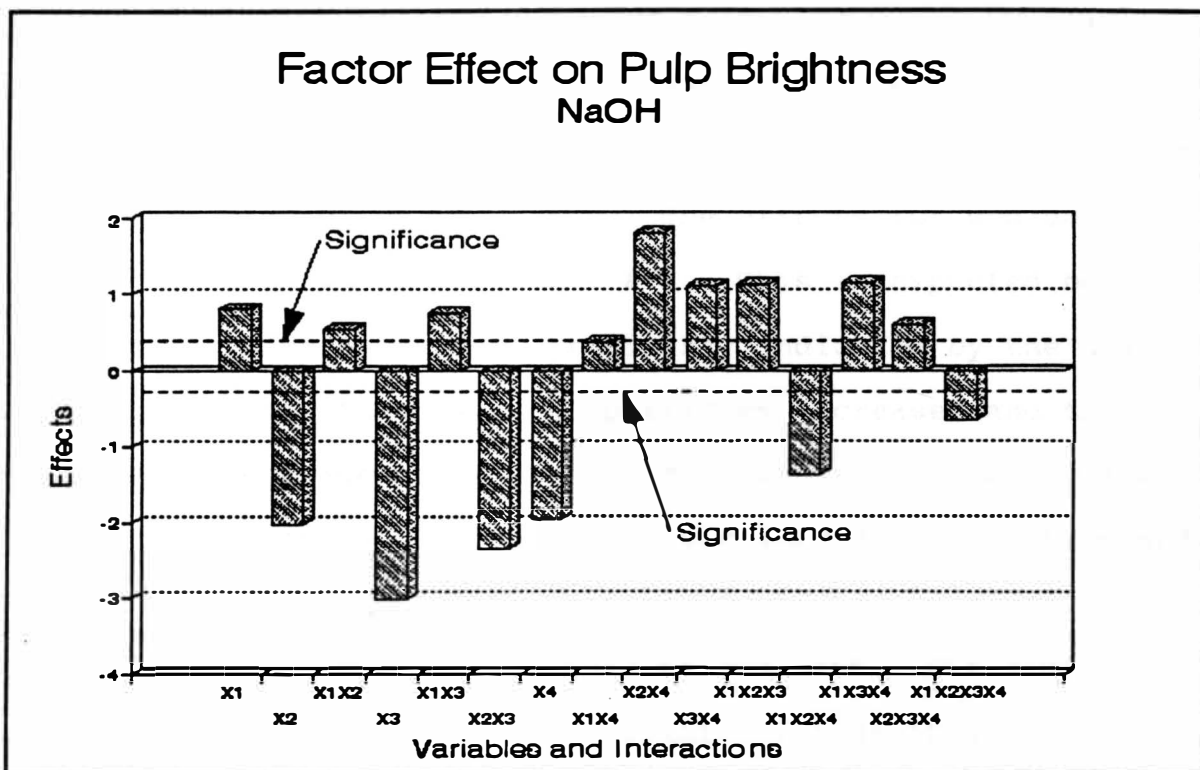


Figure 7

The sodium hydroxide brightness values yielded effects for all variables, main variables and interactions, which were significant due to the low standard of deviation of the brightness values. The sodium hydroxide effects are shown in Figures 6 & 7. The three highest effects were time, pressure, and the interaction of time and pressure. The effect for time indicated that the brightness increases for a decrease in time, and this was also the trend for pressure. The interaction effect just indicates the fact that these two variables combined also affect the brightness. The image analysis results for the sodium sulphite indicated again that the effect for the interaction of time, pressure and dispersant was significant, but also the interaction between time and dispersant alone affected the toner particle size. Sodium sulphite brightness values had a majority of significant effects, but the interaction of time, pressure and dispersant was not one of these. The effects for sodium sulphite are shown in Figures 8 & 9. This is expected because as particle size decreases, previously indicated by the image analysis values, the number of particles increases and this will decrease brightness. The highest effects of the sodium sulphite brightness were chemical, the interaction of time and pressure, and the interaction of chemical, time, and dispersant, in order from largest to smallest. The sodium sulphite, chemical, effect was definitely a desired effect, thus indicating that sodium sulphite works under the steam-

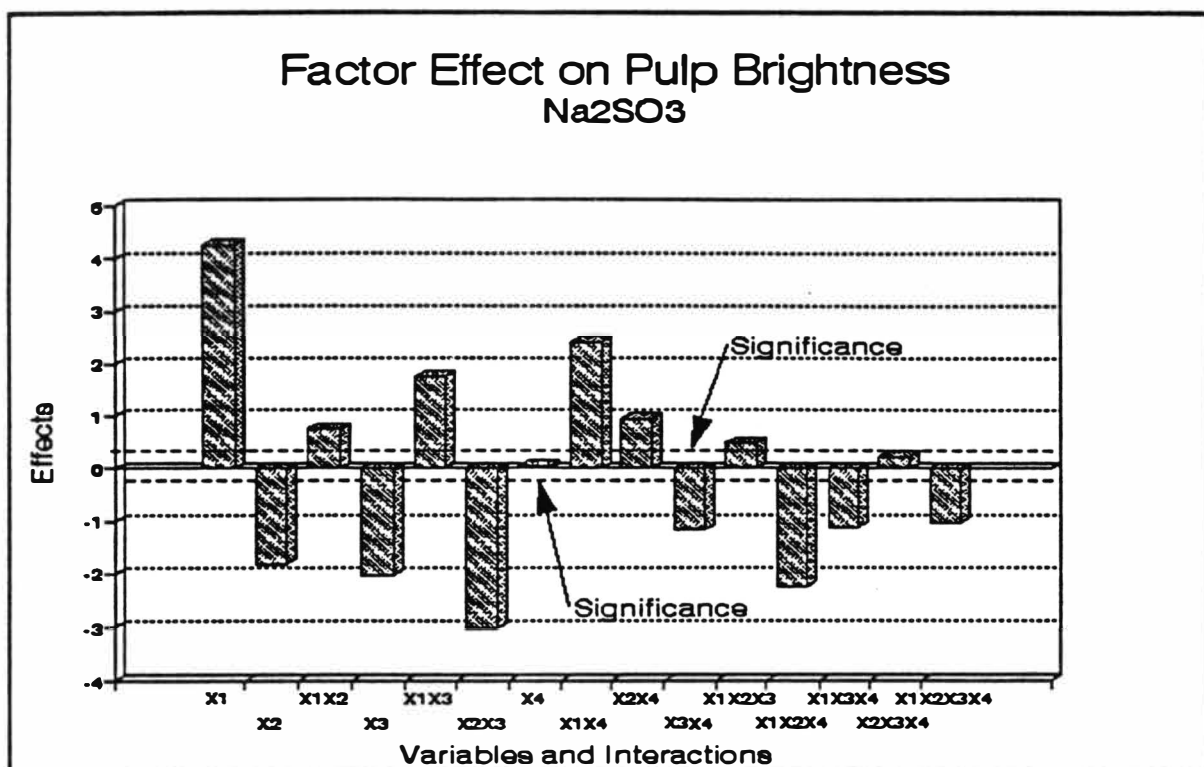


Figure 8

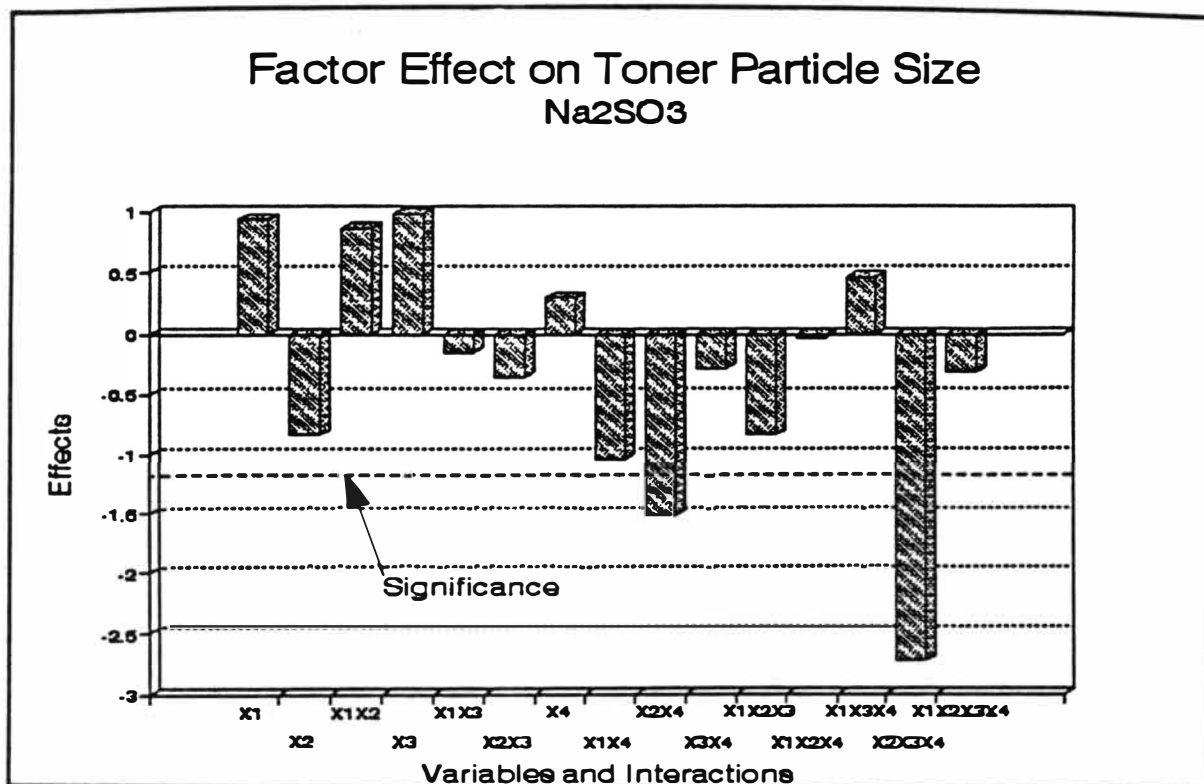


Figure 9

explosion conditions used in these trials. Finally, the combination of both chemicals indicated pressure as a significant effect with the lower pressure yielding smaller toner particles. The interaction of time and chemical also was a significant effect. The combination of both chemicals significantly improved the brightness, but the interactions of time and pressure, and of chemical and pressure were also significant. The effects of both chemicals are shown in Figures 10 & 11.

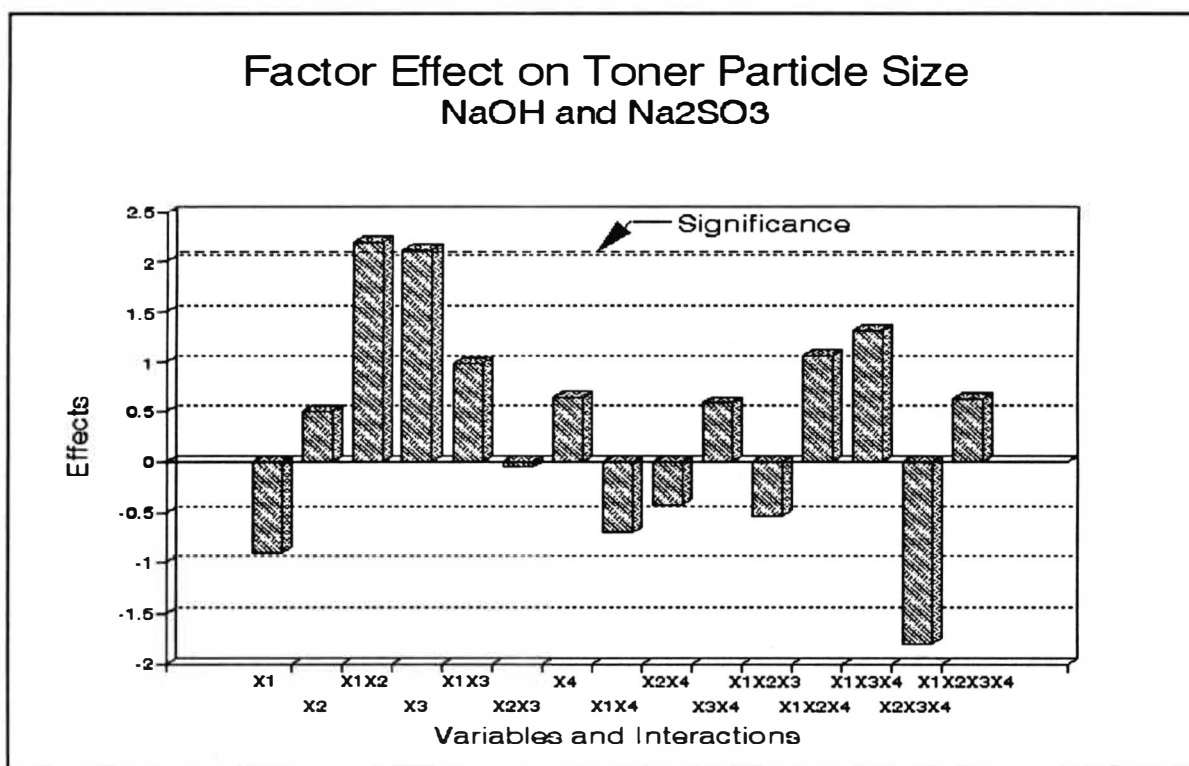


Figure 10

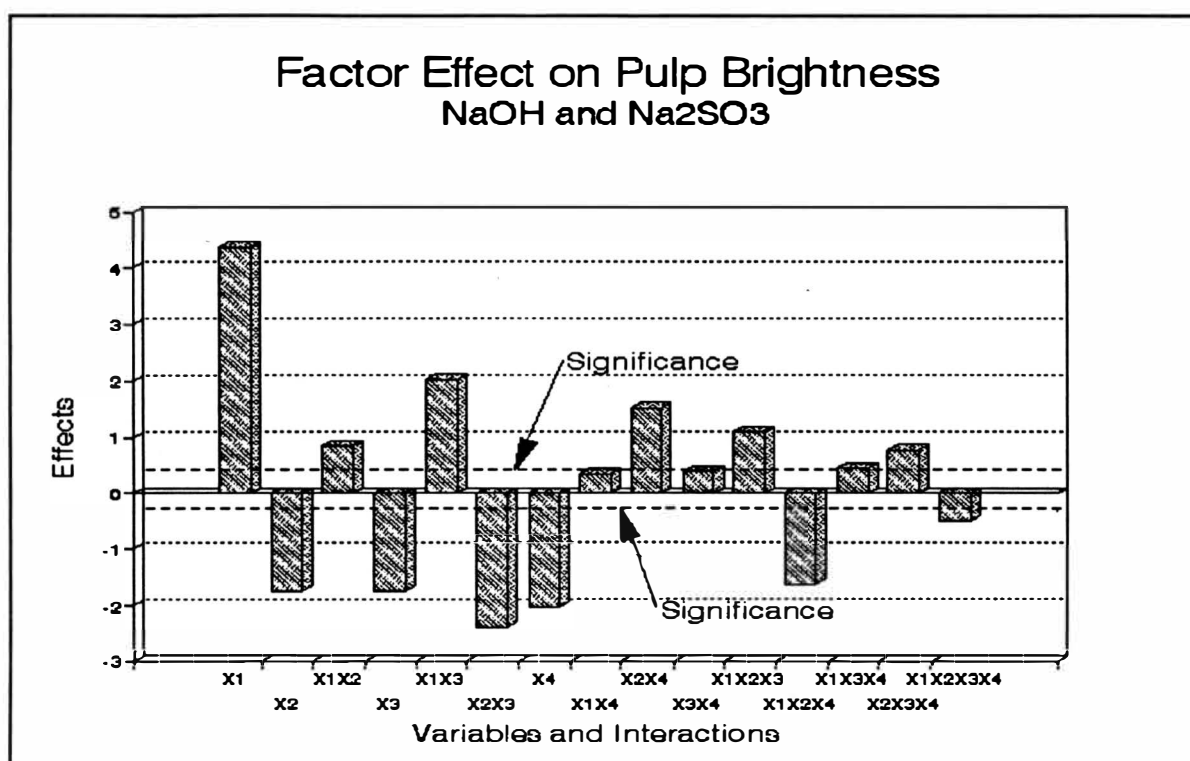


Figure 11

CONCLUSIONS

The use of steam-explosion on laser and Xerox printed paper removes the toner from the cellulose fibers and thus allows the toner to be dispersed in the pulp suspension. Steam-explosion also has an effect on the toner that causes it to migrate to the pulp surface. The use of sodium hydroxide causes a reduction in toner particle size and sodium sulphite increases the pulp brightness. When sodium hydroxide and sodium sulphite are used together their individual effects are both realized. The process of steam-explosion is a possible alternative to conventional processes of pulping.

RECOMMENDATIONS

Further research should be done to determine the effect

that steam-explosion has on strength properties made with the steam-explosion pulp, and the effect that steam-explosion has on the fiber morphology. Steam-explosion should also be examined for a wider variety of paper grades or mixtures of grades. Finally, research should be made on steam-explosion under continuous conditions.

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APPENDIX A

Standard Deviation Calculations for Brightness

NaOH

Trial	Value 1	Value 2	S ^ 2
1	78.07	78.85	0.30
2	77.25	77.68	0.09
3	79.45	79.49	0.00
4	68.67	69.23	0.16
5	74.26	74.21	0.00
6	76.72	77.40	0.23
7	72.45	72.78	0.05
8	70.76	71.24	0.11
9	74.80	74.87	0.00
10	74.85	75.18	0.06
11	75.93	76.31	0.07
12	73.64	73.87	0.03
13	79.30	79.01	0.04
14	78.23	78.63	0.08
15	75.76	75.82	0.00
16	73.14	72.24	0.41

1.65

S ^ 2 Pooled 0.10

S Pooled= 0.32

Significance= 0.33

99% Confidence

Na2SO3

Trial	Value 1	Value 2	S ^ 2
1	78.07	78.85	0.30
2	77.25	77.68	0.09
3	79.45	79.49	0.00
4	68.67	69.23	0.16
5	74.26	74.21	0.00
6	76.72	77.40	0.23
7	72.45	72.78	0.05
8	70.76	71.24	0.11
17	81.07	81.27	0.02
18	82.04	82.26	0.02
19	81.67	82.26	0.17
20	76.13	76.35	0.02
21	75.75	76.05	0.04
22	77.61	78.09	0.11
23	79.70	79.71	0.00
24	78.18	78.16	0.00

1.35

S ^ 2 Pooled 0.08

S Pooled= 0.29

Significance= 0.30

99% Confidence

NaOH & Na2SO3

Trial	Value 1	Value 2	S ^ 2
1	78.07	78.85	0.30
2	77.25	77.68	0.09
3	79.45	79.49	0.00
4	68.67	69.23	0.16
5	74.26	74.21	0.00
6	76.72	77.40	0.23
7	72.45	72.78	0.05
8	70.76	71.24	0.11
25	77.57	78.21	0.20
26	77.78	78.00	0.02
27	79.56	80.53	0.47
28	77.78	78.11	0.05
29	79.88	80.19	0.05
30	80.64	80.97	0.05
31	81.27	80.76	0.13
32	78.88	78.49	0.08

2.01

S ^ 2 Pooled 0.13

S Pooled= 0.35

Significance= 0.37

99% Confidence

M1	75.20	76.50	0.84
M2	81.03	81.09	0.00
M3	78.76	79.18	0.09
M4	74.66	74.59	0.00

0.94

S ^ 2 Pooled 0.23

S Pooled= 0.48

Significance= 0.73

M1	75.20	76.50	0.84
M2	81.03	81.09	0.00
M5	75.20	74.51	0.23
M6	73.77	74.09	0.05

1.13

S ^ 2 Pooled 0.28

S Pooled= 0.53

Significance= 0.80

M1	75.20	76.50	0.84
M2	81.03	81.09	0.00
M7	76.51	76.17	0.06
M8	77.31	77.33	0.00

0.90

S ^ 2 Pooled 0.23

S Pooled= 0.48

Significance= 0.72

Factor Effect on Pulp Brightness

NaOH Trials

Trial	Mean	Chemical	Time	Interaction	Pressure	Interaction	Interaction	Dispersant	Interaction	Interaction	Interaction	Interaction	Interaction	Interaction	Interaction	Interaction	Avg. Area
		X1	X2	X1X2	X3	X1X3	X2X3	X4	X1X4	X2X4	X3X4	X1X2X3	X1X2X4	X1X3X4	X2X3X4	X1X2X3X4	Y
1	+	-	-	+	-	+	+	-	+	+	+	-	-	-	-	+	78.46
2	+	-	+	-	-	+	-	-	+	-	+	+	+	-	+	-	77.46
3	+	-	-	+	+	-	-	-	+	+	-	+	-	+	+	-	79.47
4	+	-	+	-	+	-	+	-	+	-	-	-	+	+	-	+	68.95
5	+	-	-	+	-	+	+	+	-	-	-	-	+	+	+	-	74.24
6	+	-	+	-	-	+	-	+	-	+	-	+	-	+	-	+	77.06
7	+	-	-	+	+	-	-	+	-	-	+	+	+	-	-	+	72.62
8	+	-	+	-	+	-	+	+	-	+	+	-	-	+	+	-	71.00
9	+	+	-	-	-	-	+	+	+	-	-	+	-	-	+	+	74.83
10	+	+	+	+	-	-	-	+	+	+	-	-	+	-	-	-	75.02
11	+	+	-	-	+	+	-	+	+	-	+	-	-	+	-	-	76.12
12	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	73.77
13	+	+	-	-	-	-	+	-	-	+	+	+	+	+	-	-	79.16
14	+	+	+	+	-	-	-	-	-	-	+	-	-	+	+	+	78.43
15	+	+	-	-	+	+	-	-	-	+	-	-	+	-	+	+	75.79
16	+	+	+	+	+	+	+	-	-	-	-	+	-	-	-	-	72.69
Sum+	1205.07	605.81	594.38	604.7	590.41	605.59	593.1	594.66	604.08	609.73	607.02	607.06	597.01	607.2	604.99	599.91	
Sum-	0.00	599.26	610.69	600.37	614.66	599.48	611.97	610.41	600.99	595.34	598.05	598.01	608.06	597.87	600.08	605.18	
Total Sum	1205.07	1205.07	1205.07	1205.07	1205.07	1205.07	1205.07	1205.07	1205.07	1205.07	1205.07	1205.07	1205.07	1205.07	1205.07	1205.07	
Difference	1205.07	6.55	-16.31	4.33	-24.25	6.11	-18.87	-15.75	3.09	14.39	8.97	9.05	-11.05	9.33	4.91	-5.25	
Effect	75.32	0.82	-2.04	0.54	-3.03	0.76	-2.36	-1.97	0.39	1.60	1.12	1.13	-1.38	1.17	0.61	-0.66	

Trial	Mean	Chemical	Dispersant	Interaction	Avg. Area
		Z1	Z2	Z1Z2	W
M1	+	-	-	+	75.84
M2	+	-	+	-	81.06
M3	+	+	-	-	78.97
M4	+	+	+	+	74.63
Sum+	310.50	153.60	155.69	150.47	
Sum-	0.00	156.90	154.81	160.03	
Total Sum	310.5	310.5	310.5	310.5	
Difference	310.50	-3.30	0.88	-9.56	
Effect	77.63	-1.65	0.44	-4.78	

Chemical	-	+
Time	None	Both
Pressure	2 Min.	4 Min.
Dispersant	200 PSIG	400 PSIG
	Absent	Present

Factor Effect on Pulp Brightness

Na2SO3 Trials

Trial	Mean	Chemical X1	Time X2	Interaction X1X2	Pressure X3	Interaction X1X3	Interaction X2X3	Dispersant X4	Interaction X1X4	Interaction X2X4	Interaction X3X4	Interaction X1X2X3	Interaction X1X2X4	Interaction X1X3X4	Interaction X2X3X4	Interaction X1X2X3X4	Avg. Area Y
1	+	-	-	+	-	+	+	-	+	+	+	-	-	-	-	+	78.46
2	+	-	+	-	-	+	-	-	+	-	+	+	+	-	+	-	77.46
3	+	-	-	+	+	-	-	-	+	+	-	+	-	+	+	-	79.47
4	+	-	+	-	+	-	+	-	+	-	-	-	+	+	-	+	68.95
5	+	-	-	+	-	+	+	+	-	-	-	-	+	+	+	-	74.24
6	+	-	+	-	-	+	-	+	-	+	-	+	-	+	-	+	77.06
7	+	-	-	+	+	-	-	+	-	-	+	+	+	-	-	+	72.62
8	+	-	+	-	+	-	+	+	-	+	+	-	-	-	+	-	71.00
17	+	+	-	-	-	-	+	+	+	-	-	+	-	-	+	+	81.17
18	+	+	+	+	-	-	-	+	+	+	-	-	+	-	-	-	82.15
19	+	+	-	-	+	+	-	+	+	-	+	-	-	+	-	-	81.96
20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	76.24
21	+	+	-	-	-	-	+	-	-	+	+	+	+	+	-	-	75.90
22	+	+	+	+	-	-	-	-	-	-	+	-	-	+	+	+	77.85
23	+	+	-	-	+	+	-	-	-	+	-	-	+	-	+	+	79.71
24	+	+	+	+	+	+	+	-	-	-	-	+	-	-	-	-	78.17
Sum+	1232.41	633.15	608.88	619.2	606.12	623.3	604.13	616.44	625.86	619.99	611.49	618.09	607.27	611.67	617.14	612.08	
Sum-	0.00	599.26	623.53	613.21	624.29	609.11	628.28	615.97	606.56	612.42	620.92	614.32	625.14	620.74	615.27	620.35	
Total Sum	1232.41	1232.41	1232.41	1232.41	1232.41	1232.41	1232.41	1232.41	1232.41	1232.41	1232.41	1232.41	1232.41	1232.41	1232.41	1232.41	
Difference	1232.41	33.89	-14.65	5.99	-16.17	14.19	-24.15	0.47	19.31	7.57	-9.43	3.77	-17.87	-9.07	1.87	-8.29	
Effect	77.03	4.24	-1.83	0.75	-2.02	1.77	-3.02	0.06	2.41	0.95	-1.18	0.47	-2.23	-1.13	0.23	-1.04	

Trial	Mean	Chemical Z1	Dispersant Z2	Interaction Z1Z2	Avg. Area W
M1	+	-	-	+	75.84
M2	+	-	+	-	81.06
M5	+	+	-	-	74.85
M6	+	+	+	+	73.93
Sum+	305.68	148.78	154.99	149.77	
Sum-	0.00	156.90	150.69	155.91	
Total Sum	305.68	305.68	305.68	305.68	
Difference	305.68	-8.12	4.30	-6.14	
Effect	76.42	-4.06	2.15	-3.07	

		+
Chemical	None	Both
Time	2 Min.	4 Min.
Pressure	200 PSIG	400 PSIG
Dispersant	Absent	Present

Factor Effect on Pulp Brightness

NaOH & Na2SO3 Trials

Trial	Mean	Chemical	Time	Interaction	Pressure	Interaction	Interaction	Dispersant	Interaction	Interaction	Interaction	Interaction	Interaction	Interaction	Interaction	Interaction	Avg. Area
		X1	X2	X1X2	X3	X1X3	X2X3	X4	X1X4	X2X4	X3X4	X1X2X3	X1X2X4	X1X3X4	X2X3X4	X1X2X3X4	Y
1	+	-	-	+	-	+	+	-	+	+	+	-	-	-	-	+	78.46
2	+	-	+	-	-	+	-	-	+	-	+	+	+	-	+	-	77.46
3	+	-	-	+	+	-	-	-	+	+	-	+	+	+	+	-	79.47
4	+	-	+	-	+	-	+	-	+	-	-	-	+	+	-	+	68.95
5	+	-	-	+	-	+	+	+	-	-	-	-	+	+	+	-	74.24
6	+	-	+	-	-	+	-	+	-	+	-	+	-	+	-	+	77.06
7	+	-	-	+	+	-	-	+	-	-	+	+	+	-	-	+	72.62
8	+	+	+	-	+	-	+	+	-	+	+	-	-	+	+	-	71.00
25	+	+	-	-	-	-	+	+	+	-	-	+	-	-	+	+	77.89
26	+	+	+	+	-	-	-	+	+	+	-	-	+	-	-	-	77.89
27	+	+	-	-	+	+	-	+	+	-	+	-	-	+	-	-	80.05
28	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	77.95
29	+	+	-	-	-	-	+	-	-	+	+	+	+	+	-	-	80.04
30	+	+	+	+	-	-	-	-	-	-	+	-	-	+	+	+	80.80
31	+	+	-	-	+	+	-	-	-	+	-	-	+	-	+	+	81.01
32	+	+	+	+	+	+	+	-	-	-	-	+	-	-	-	-	78.68
Sum+	1233.57	634.31	609.79	620.11	609.73	624.91	607.21	608.70	618.12	622.68	618.38	621.17	610.16	618.56	619.82	614.74	
Sum-	0.00	599.26	623.78	613.46	623.64	608.66	626.36	624.87	615.45	610.69	615.19	612.4	623.41	615.01	613.75	618.83	
Total Sum	1233.57	1233.57	1233.57	1233.57	1233.57	1233.57	1233.57	1233.57	1233.57	1233.57	1233.57	1233.57	1233.57	1233.57	1233.57	1233.57	
Difference	1233.57	35.05	-13.99	6.65	-14.11	16.25	-19.15	-16.17	2.67	12.19	3.19	8.77	-13.25	3.55	6.07	-4.09	
Effect	77.10	4.38	-1.75	0.83	-1.76	2.03	-2.39	-2.02	0.33	1.52	0.40	1.10	-1.66	0.44	0.76	-0.51	

Trial	Mean	Chemical	Dispersant	Interaction	Avg. Area
		Z1	Z2	Z1Z2	W
M1	+	-	-	+	75.84
M2	+	-	+	-	81.06
M7	+	+	-	-	76.34
M8	+	+	+	+	77.32
Sum+	310.56	153.66	158.38	153.16	
Sum-	0.00	156.90	152.18	157.4	
Total Sum	310.56	310.56	310.56	310.56	
Difference	310.56	-3.24	6.20	-4.24	
Effect	77.64	-1.62	3.10	-2.12	

Chemical	None	+	Both
Time	2 Min.		4 Min.
Pressure	200 PSIG		400 PSIG
Dispersant	Absent		Present

Standard Deviation Calculations for Image Analysis

NaOH				Na2SO3				NaOH & Na2SO3			
Trial	Value 1	Value 2	S ^ 2	Trial	Value 1	Value 2	S ^ 2	Trial	Value 1	Value 2	S ^ 2
1	19.34	15.36	7.92	1	19.34	15.36	7.92	1	19.34	15.36	7.92
2	13.65	14.85	0.72	2	13.65	14.85	0.72	2	13.65	14.85	0.72
3	18.53	14.09	9.86	3	18.53	14.09	9.86	3	18.53	14.09	9.86
4	20.28	17.75	3.20	4	20.28	17.75	3.20	4	20.28	17.75	3.20
5	18.47	18.54	0.00	5	18.47	18.54	0.00	5	18.47	18.54	0.00
6	17.07	17.43	0.06	6	17.07	17.43	0.06	6	17.07	17.43	0.06
7	21.02	20.66	0.06	7	21.02	20.66	0.06	7	21.02	20.66	0.06
8	15.89	15.50	0.08	8	15.89	15.50	0.08	8	15.89	15.50	0.08
9	13.97	17.18	5.15	17	17.12	15.12	2.00	25	11.32	11.48	0.01
10	16.84	17.36	0.14	18	21.53	16.08	14.85	26	15.37	17.67	2.65
11	19.80	19.14	0.22	19	21.61	21.10	0.13	27	20.71	15.68	12.65
12	19.97	10.10	48.71	20	14.09	17.08	4.47	28	20.50	18.95	1.20
13	14.60	21.77	25.70	21	18.35	18.69	0.06	29	14.76	15.63	0.38
14	16.58	17.76	0.70	22	18.18	18.32	0.01	30	20.54	12.81	29.88
15	20.91	13.65	26.35	23	15.15	19.52	9.55	31	22.76	8.90	96.05
16	16.88	16.51	0.07	24	18.75	22.77	8.08	32	16.65	20.26	6.52
			128.94				61.05				171.24
S ^ 2 Pooled=			8.06	S ^ 2 Pooled=			3.82	S ^ 2 Pooled=			10.70
S Pooled=			2.84	S Pooled=			1.95	S Pooled=			3.27
Significance=			1.75	Significance=			1.21	Significance=			2.02
90% Confidence				90% Confidence				90% Confidence			
M1	27.43	13.59	95.77	M1	27.43	13.59	95.77	M1	27.43	13.59	95.77
M2	21.82	14.03	30.34	M2	21.82	14.03	30.34	M2	21.82	14.03	30.34
M3	17.86	22.96	13.01	M5	17.03	22.50	14.96	M7	14.60	15.16	0.16
M4	18.48	24.11	15.85	M6	14.64	12.87	1.57	M8	16.65	17.43	0.30
			154.97				142.64				126.58
S ^ 2 Pooled=			38.74	S ^ 2 Pooled=			35.66	S ^ 2 Pooled=			31.64
S Pooled=			6.22	S Pooled=			5.97	S Pooled=			5.63
Significance=			9.38	Significance=			9.00	Significance=			8.48
90% Confidence				90% Confidence				90% Confidence			

Factor Effect on Toner Particle Size

NaOH Trials

Trial	Mean	Chemical	Time	Interaction	Pressure	Interaction	Interaction	Dispersant	Interaction	Interaction	Interaction	Interaction	Interaction	Interaction	Interaction	Interaction	Avg. Area
		X1	X2	X1X2	X3	X1X3	X2X3	X4	X1X4	X2X4	X3X4	X1X2X3	X1X2X4	X1X3X4	X2X3X4	X1X2X3X4	Y
1	+	-	-	+	-	+	+	-	+	+	+	-	-	-	-	+	17.35
2	+	-	+	-	-	+	-	-	+	-	+	+	+	-	+	-	14.25
3	+	-	-	+	+	-	-	-	+	+	-	+	-	+	+	-	16.31
4	+	-	+	-	+	-	+	-	+	-	-	-	+	+	-	+	19.02
5	+	-	-	+	-	+	+	+	-	-	-	-	+	+	+	-	18.51
6	+	-	+	-	-	+	-	+	-	+	-	+	+	+	-	+	17.25
7	+	-	-	+	+	-	-	+	-	-	+	+	+	-	-	+	20.84
8	+	-	+	-	+	-	+	+	-	+	+	+	-	-	+	-	15.70
9	+	+	-	-	-	-	+	+	+	-	-	+	-	-	+	+	15.58
10	+	+	+	+	-	+	-	+	+	+	-	+	+	-	-	-	17.10
11	+	+	-	-	+	+	+	+	+	-	+	+	-	+	-	-	19.47
12	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15.04
13	+	+	-	-	-	-	+	-	-	+	+	+	+	+	-	-	18.19
14	+	+	+	+	-	-	-	-	-	-	+	-	-	+	+	+	17.17
15	+	+	-	-	+	+	-	-	-	+	-	+	+	-	+	+	17.28
16	+	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	16.70
Sum+	275.73	136.51	132.21	139.005	140.34	135.835	136.055	139.47	134.105	134.205	137.895	134.14	140.21	140.94	129.82	139.52	
Sum-	0.00	139.22	143.52	136.72	135.39	139.89	139.67	136.26	141.62	141.52	137.73	141.585	135.515	134.785	145.905	136.21	
Total Sum	275.725	275.725	275.725	275.725	275.725	275.725	275.725	275.725	275.725	275.725	275.725	275.725	275.725	275.725	275.725	275.725	
Difference	275.73	-2.70	-11.31	2.28	4.95	-4.06	-3.62	3.22	-7.51	-7.31	0.26	-7.45	4.69	6.16	-16.08	3.31	
Effect	17.23	-0.34	-1.41	0.29	0.62	-0.51	-0.45	0.40	-0.94	-0.91	0.03	-0.93	0.59	0.77	-2.01	0.41	

Trial	Mean	Chemical	Dispersant	Interaction	Avg. Area
		Z1	Z2	Z1Z2	W
M1	+	-	-	+	20.51
M2	+	-	+	-	17.93
M3	+	+	-	-	20.41
M4	+	+	+	+	21.30
Sum+	80.14	41.71	39.22	41.605	
Sum-	0.00	38.44	40.92	38.335	
Total Sum	80.14	80.14	80.14	80.14	
Difference	80.14	3.27	-1.70	3.47	
Effect	20.04	1.63	-0.65	1.74	

Chemical +
 None Both
 Time 2 Min. 4 Min.
 Pressure 200 PSIG 400 PSIG
 Dispersant Absent Present
 Average Area in Microns.

Factor Effect on Toner Particle Size

Na2SO3 Trials

Trial	Mean	Chemical	Time	Interaction	Pressure	Interaction	Interaction	Dispersant	Interaction	Interaction	Interaction	Interaction	Interaction	Interaction	Interaction	Interaction	Avg. Area
		X1	X2	X1X2	X3	X1X3	X2X3	X4	X1X4	X2X4	X3X4	X1X2X3	X1X2X4	X1X3X4	X2X3X4	X1X2X3X4	Y
1	+	-	-	+	-	+	+	-	+	+	+	-	-	-	-	+	17.35
2	+	-	+	-	-	+	-	-	+	-	+	+	+	-	+	-	14.25
3	+	-	-	+	+	-	-	-	+	+	-	+	-	+	+	-	16.31
4	+	-	+	-	+	-	+	-	+	-	-	-	+	+	-	+	19.02
5	+	-	-	+	-	+	+	+	-	-	-	-	+	+	+	-	18.51
6	+	-	+	-	-	+	-	+	-	+	-	+	-	+	-	+	17.25
7	+	-	-	+	+	-	-	+	-	-	+	+	+	-	-	+	20.84
8	+	-	+	-	+	-	+	+	-	+	+	-	-	-	+	-	15.70
17	+	+	-	-	-	-	+	+	+	-	-	+	-	-	+	+	16.12
18	+	+	+	+	-	-	-	+	+	+	-	-	+	-	-	-	18.81
19	+	+	-	-	+	+	-	+	+	-	+	-	-	+	-	-	21.36
20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15.59
21	+	+	-	-	-	-	+	-	-	+	+	+	+	+	-	-	18.52
22	+	+	+	+	-	-	-	-	-	-	+	-	-	+	+	+	18.25
23	+	+	-	-	+	+	-	-	-	+	-	-	+	-	+	+	17.34
24	+	+	+	+	+	+	+	-	-	-	-	+	-	-	-	-	20.76
Sum+	285.95	146.73	139.61	146.405	146.90	142.39	141.55	144.16	138.79	136.85	141.845	139.635	142.855	144.79	132.05	141.73	
Sum-	0.00	139.22	146.34	139.54	139.05	143.555	144.395	141.79	147.155	149.095	144.1	146.31	143.09	141.155	153.895	144.20	
Total Sum	285.945	285.945	285.945	285.945	285.945	285.945	285.945	285.945	285.945	285.945	285.945	285.945	285.945	285.945	285.945	285.945	
Difference	285.95	7.52	-6.73	6.86	7.84	-1.17	-2.84	2.36	-8.37	-12.24	-2.25	-6.68	-0.23	3.63	-21.85	-2.48	
Effect	17.87	0.94	-0.84	0.86	0.98	-0.15	-0.36	0.30	-1.05	-1.53	-0.28	-0.83	-0.03	0.45	-2.73	-0.31	

Trial	Mean	Chemical	Dispersant	Interaction	Avg. Area
		Z1	Z2	Z1Z2	W
M1	+	-	-	+	20.51
M2	+	-	+	-	17.93
M5	+	+	-	-	19.77
M6	+	+	+	+	13.76
Sum+	71.96	33.52	31.68	34.265	
Sum-	0.00	38.44	40.28	37.69	
Total Sum	71.965	71.965	71.955	71.955	
Difference	71.96	-4.92	-8.60	-3.43	
Effect	17.99	-2.46	-4.30	-1.71	

- +
 Chemical None Both
 Time 2 Min. 4 Min.
 Pressure 200 PSIG 400 PSIG
 Dispersant Absent Present
 Average Area in Microns.

Factor Effect on Toner Particle Size

NaOH & Na2SO3 Trials

Trial	Mean	Chemical	Time	Interaction	Pressure	Interaction	Interaction	Dispersant	Interaction	Interaction	Interaction	Interaction	Interaction	Interaction	Interaction	Interaction	Avg. Area
		X1	X2	X1X2	X3	X1X3	X2X3	X4	X1X4	X2X4	X3X4	X1X2X3	X1X2X4	X1X3X4	X2X3X4	X1X2X3X4	Y
1	+	-	-	+	-	+	+	-	+	+	+	-	-	-	-	+	17.35
2	+	-	+	-	-	+	-	-	+	-	+	+	+	-	+	-	14.25
3	+	-	-	+	+	-	-	-	+	+	-	+	-	+	+	-	16.31
4	+	-	+	-	+	-	+	-	+	-	-	-	+	+	-	+	19.02
5	+	-	-	+	-	+	+	+	-	-	-	-	+	+	+	-	18.51
6	+	-	+	-	-	+	-	+	-	+	-	+	-	+	-	+	17.25
7	+	-	-	+	+	-	-	+	-	-	+	+	+	-	-	+	20.84
8	+	-	+	-	+	-	+	+	-	+	+	-	-	-	+	-	15.70
25	+	+	-	-	-	-	+	+	+	-	-	+	-	-	+	+	11.40
26	+	+	+	+	-	-	-	+	+	+	-	-	+	-	-	-	16.52
27	+	+	-	-	+	+	-	+	+	-	+	-	-	+	-	-	18.20
28	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	19.73
29	+	+	-	-	-	-	+	-	-	+	+	+	+	+	-	-	15.20
30	+	+	+	+	-	-	-	-	-	-	+	-	-	+	+	+	16.68
31	+	+	-	-	+	+	-	-	-	+	-	-	+	-	+	+	15.83
32	+	+	+	+	+	+	+	-	-	-	-	+	-	-	-	-	18.46
Sum+	271.21	132.00	137.59	144.38	144.07	139.56	135.34	138.13	132.765	133.875	137.925	133.425	139.88	140.87	128.39	138.09	
Sum-	0.00	139.22	133.63	126.83	127.15	131.65	135.87	133.08	138.445	137.335	133.285	137.785	131.33	130.34	142.82	133.13	
Total Sum	271.21	271.21	271.21	271.21	271.21	271.21	271.21	271.21	271.21	271.21	271.21	271.21	271.21	271.21	271.21	271.21	
Difference	271.21	-7.22	3.96	17.55	16.92	7.91	-0.53	5.05	-5.68	-3.46	4.64	-4.36	8.55	10.53	-14.43	4.96	
Effect	16.95	-0.90	0.49	2.19	2.12	0.99	-0.07	0.63	-0.71	-0.43	0.58	-0.54	1.07	1.32	-1.80	0.62	

Trial	Mean	Chemical	Dispersant	Interaction	Avg. Area
		Z1	Z2	Z1Z2	W
M1	+	-	-	+	20.51
M2	+	-	+	-	17.93
M7	+	+	-	-	14.88
M8	+	+	+	+	17.04
Sum+	70.36	31.92	34.97	37.55	
Sum-	0.00	38.44	35.39	32.805	
Total Sum	70.355	70.355	70.355	70.355	
Difference	70.36	-6.52	-0.42	4.75	
Effect	17.59	-3.26	-0.21	2.37	

Chemical - +
 None Both
 Time 2 Min. 4 Min.
 Pressure 200 PSIG 400 PSIG
 Dispersant Absent Present
 Average Area in Microns.

APPENDIX B

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE1X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	19.34
3) Median (μm^2)	6.08
4) Mode (μm^2)	2.10
5) Number Of Particles	28
6) Total Areas (μm^2)	5.4164E+ 2
7) Maximum Area detected (μm^2)	46.74
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	14.96

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE1X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	15.36
3) Median (μm^2)	11.04
4) Mode (μm^2)	9.00
5) Number Of Particles	29
6) Total Areas (μm^2)	4.4541E+ 2
7) Maximum Area detected (μm^2)	41.24
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	10.45

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE2X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	13.65
3) Median (μm^2)	6.63
4) Mode (μm^2)	5.30
5) Number Of Particles	28
6) Total Areas (μm^2)	3.8217E+ 2
7) Maximum Area detected (μm^2)	46.74
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	12.59

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE2X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	14.85
3) Median (μm^2)	10.40
4) Mode (μm^2)	9.98
5) Number Of Particles	30
6) Total Areas (μm^2)	4.4541E+ 2
7) Maximum Area detected (μm^2)	49.49
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	10.80

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE3X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	18.53
3) Median (μm^2)	5.28
4) Mode (μm^2)	2.10
5) Number Of Particles	23
6) Total Areas (μm^2)	4.2617E+ 2
7) Maximum Area detected (μm^2)	43.99
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	13.08

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE3X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	14.09
3) Median (μm^2)	4.34
4) Mode (μm^2)	2.10
5) Number Of Particles	24
6) Total Areas (μm^2)	3.3818E+ 2
7) Maximum Area detected (μm^2)	43.99
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	11.18

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE4X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	20.28
3) Median (μm^2)	6.40
4) Mode (μm^2)	2.10
5) Number Of Particles	24
6) Total Areas (μm^2)	4.8665E- 2
7) Maximum Area detected (μm^2)	49.49
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	15.87

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE4X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	17.75
3) Median (μm^2)	6.00
4) Mode (μm^2)	2.10
5) Number Of Particles	33
6) Total Areas (μm^2)	5.8563E- 2
7) Maximum Area detected (μm^2)	46.74
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	13.52

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE5X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	18.47
3) Median (μm^2)	11.71
4) Mode (μm^2)	9.95
5) Number Of Particles	71
6) Total Areas (μm^2)	1.3115E- 3
7) Maximum Area detected (μm^2)	49.49
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	13.08

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE5X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	18.54
3) Median (μm^2)	11.70
4) Mode (μm^2)	10.10
5) Number Of Particles	39
6) Total Areas (μm^2)	7.2311E- 2
7) Maximum Area detected (μm^2)	49.49
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	13.52

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE6X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	17.07
3) Median (μm^2)	5.41
4) Mode (μm^2)	2.11
5) Number Of Particles	43
6) Total Areas (μm^2)	7.3411E- 2
7) Maximum Area detected (μm^2)	49.75
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	14.07

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE6X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	17.43
3) Median (μm^2)	6.07
4) Mode (μm^2)	2.11
5) Number Of Particles	44
6) Total Areas (μm^2)	7.6710E- 2
7) Maximum Area detected (μm^2)	49.49
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	11.77

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE7X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	21.02
3) Median (μm^2)	7.80
4) Mode (μm^2)	2.10
5) Number Of Particles	31
6) Total Areas (μm^2)	6.5162E+ 2
7) Maximum Area detected (μm^2)	46.74
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	13.33

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE7X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	20.66
3) Median (μm^2)	7.90
4) Mode (μm^2)	5.30
5) Number Of Particles	39
6) Total Areas (μm^2)	8.0559E+ 2
7) Maximum Area detected (μm^2)	49.49
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	14.03

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE8X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	15.89
3) Median (μm^2)	6.64
4) Mode (μm^2)	2.10
5) Number Of Particles	63
6) Total Areas (μm^2)	1.0008E+ 3
7) Maximum Area detected (μm^2)	49.49
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	13.16

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE8X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	15.50
3) Median (μm^2)	7.35
4) Mode (μm^2)	5.30
5) Number Of Particles	55
6) Total Areas (μm^2)	8.5233E+ 2
7) Maximum Area detected (μm^2)	43.99
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	11.75

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE9X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	13.97
3) Median (μm^2)	4.10
4) Mode (μm^2)	2.10
5) Number Of Particles	25
6) Total Areas (μm^2)	3.4918E+ 2
7) Maximum Area detected (μm^2)	49.49
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	14.36

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE9X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	17.18
3) Median (μm^2)	22.40
4) Mode (μm^2)	24.50
5) Number Of Particles	32
6) Total Areas (μm^2)	5.4989E+ 2
7) Maximum Area detected (μm^2)	49.49
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	12.20

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE10X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	16.84
3) Median (μm^2)	4.44
4) Mode (μm^2)	2.10
5) Number Of Particles	32
6) Total Areas (μm^2)	5.3889E+ 2
7) Maximum Area detected (μm^2)	49.49
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	14.69

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE10X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	17.36
3) Median (μm^2)	4.71
4) Mode (μm^2)	2.10
5) Number Of Particles	35
6) Total Areas (μm^2)	6.0763E+ 2
7) Maximum Area detected (μm^2)	49.49
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	15.11

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE11X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	19.80
3) Median (μm^2)	6.93
4) Mode (μm^2)	2.10
5) Number Of Particles	40
6) Total Areas (μm^2)	7.9184E+ 2
7) Maximum Area detected (μm^2)	43.99
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	12.08

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE11X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	19.14
3) Median (μm^2)	11.80
4) Mode (μm^2)	9.80
5) Number Of Particles	25
6) Total Areas (μm^2)	4.7341E+ 2
7) Maximum Area detected (μm^2)	49.49
8) Minimum Area detected (μm^2)	2.75
9) Standard Deviation	13.41

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE12X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	19.97
3) Median (μm^2)	14.13
4) Mode (μm^2)	11.80
5) Number Of Particles	23
6) Total Areas (μm^2)	4.5929E+ 2
7) Maximum Area detected (μm^2)	43.06
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	11.99

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE12X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	10.10
3) Median (μm^2)	4.46
4) Mode (μm^2)	2.10
5) Number Of Particles	25
6) Total Areas (μm^2)	2.5261E+ 2
7) Maximum Area detected (μm^2)	37.32
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	8.20

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE13X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	14.60
3) Median (μm^2)	8.20
4) Mode (μm^2)	5.30
5) Number Of Particles	23
6) Total Areas (μm^2)	3.3586E+ 2
7) Maximum Area detected (μm^2)	45.93
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	11.29

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE13X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	21.77
3) Median (μm^2)	6.40
4) Mode (μm^2)	2.10
5) Number Of Particles	24
6) Total Areas (μm^2)	5.2244E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	15.50

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE14X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	16.58
3) Median (μm^2)	4.70
4) Mode (μm^2)	2.10
5) Number Of Particles	31
6) Total Areas (μm^2)	5.1383E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	14.06

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE14X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	17.76
3) Median (μm^2)	5.87
4) Mode (μm^2)	2.10
5) Number Of Particles	16
6) Total Areas (μm^2)	2.8419E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	15.47

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE15X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	20.91
3) Median (μm^2)	5.80
4) Mode (μm^2)	2.10
5) Number Of Particles	21
6) Total Areas (μm^2)	4.3920E+ 2
7) Maximum Area detected (μm^2)	43.06
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	13.11

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE15X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	13.56
3) Median (μm^2)	5.47
4) Mode (μm^2)	2.10
5) Number Of Particles	29
6) Total Areas (μm^2)	3.9327E+ 2
7) Maximum Area detected (μm^2)	37.32
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	10.68

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE16X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	16.88
3) Median (μm^2)	8.16
4) Mode (μm^2)	5.30
5) Number Of Particles	25
6) Total Areas (μm^2)	4.2197E+ 2
7) Maximum Area detected (μm^2)	45.93
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	12.11

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE16X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	16.51
3) Median (μm^2)	4.80
4) Mode (μm^2)	2.10
5) Number Of Particles	16
6) Total Areas (μm^2)	2.6409E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	14.62

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE17X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	17.12
3) Median (μm^2)	6.24
4) Mode (μm^2)	2.10
5) Number Of Particles	29
6) Total Areas (μm^2)	4.9661E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	12.17

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE17X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	15.12
3) Median (μm^2)	7.40
4) Mode (μm^2)	5.30
5) Number Of Particles	15
6) Total Areas (μm^2)	2.2677E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	13.19

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE18X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	21.53
3) Median (μm^2)	8.53
4) Mode (μm^2)	5.30
5) Number Of Particles	18
6) Total Areas (μm^2)	3.8753E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	15.96

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE18X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	16.03
3) Median (μm^2)	7.40
4) Mode (μm^2)	5.30
5) Number Of Particles	15
6) Total Areas (μm^2)	2.4113E+ 2
7) Maximum Area detected (μm^2)	40.19
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	11.85

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE19X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	21.61
3) Median (μm^2)	5.13
4) Mode (μm^2)	2.10
5) Number Of Particles	17
6) Total Areas (μm^2)	3.6743E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	14.20

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE19X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	21.10
3) Median (μm^2)	14.40
4) Mode (μm^2)	11.80
5) Number Of Particles	20
6) Total Areas (μm^2)	4.2197E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	10.35

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE20X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	14.09
3) Median (μm^2)	9.60
4) Mode (μm^2)	8.50
5) Number Of Particles	22
6) Total Areas (μm^2)	3.1002E+ 2
7) Maximum Area detected (μm^2)	34.45
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	10.02

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE20X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	14.09
3) Median (μm^2)	9.60
4) Mode (μm^2)	8.50
5) Number Of Particles	22
6) Total Areas (μm^2)	3.1002E+ 2
7) Maximum Area detected (μm^2)	34.45
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	10.02

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE20X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	17.08
3) Median (μm^2)	4.72
4) Mode (μm^2)	2.10
5) Number Of Particles	39
6) Total Areas (μm^2)	6.6597E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	14.69

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE20X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	17.08
3) Median (μm^2)	4.72
4) Mode (μm^2)	2.10
5) Number Of Particles	39
6) Total Areas (μm^2)	6.6597E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	14.69

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE21X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	18.35
3) Median (μm^2)	9.60
4) Mode (μm^2)	5.30
5) Number Of Particles	28
6) Total Areas (μm^2)	5.1383E+ 2
7) Maximum Area detected (μm^2)	43.06
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	11.57

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE21X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	18.69
3) Median (μm^2)	7.90
4) Mode (μm^2)	5.30
5) Number Of Particles	43
6) Total Areas (μm^2)	8.0376E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	13.83

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE22X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	18.18
3) Median (μm^2)	13.07
4) Mode (μm^2)	12.06
5) Number Of Particles	36
6) Total Areas (μm^2)	6.5449E+ 2
7) Maximum Area detected (μm^2)	43.06
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	12.48

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE22X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	18.32
3) Median (μm^2)	4.96
4) Mode (μm^2)	2.10
5) Number Of Particles	21
6) Total Areas (μm^2)	3.8466E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	13.82

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE23X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	15.15
3) Median (μm^2)	6.40
4) Mode (μm^2)	2.10
5) Number Of Particles	18
6) Total Areas (μm^2)	2.7270E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	11.83

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE23X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	19.52
3) Median (μm^2)	5.60
4) Mode (μm^2)	2.10
5) Number Of Particles	25
6) Total Areas (μm^2)	4.8800E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	15.32

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE24X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	18.75
3) Median (μm^2)	10.40
4) Mode (μm^2)	8.50
5) Number Of Particles	15
6) Total Areas (μm^2)	2.8131E+ 2
7) Maximum Area detected (μm^2)	43.06
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	13.25

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE24X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	22.77
3) Median (μm^2)	26.93
4) Mode (μm^2)	27.45
5) Number Of Particles	15
6) Total Areas (μm^2)	3.4160E+ 2
7) Maximum Area detected (μm^2)	43.06
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	12.29

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE25X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	11.32
3) Median (μm^2)	4.48
4) Mode (μm^2)	2.10
5) Number Of Particles	18
6) Total Areas (μm^2)	2.0381E+ 2
7) Maximum Area detected (μm^2)	34.45
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	8.64

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE25X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	11.48
3) Median (μm^2)	11.36
4) Mode (μm^2)	11.70
5) Number Of Particles	15
6) Total Areas (μm^2)	1.7223E+ 2
7) Maximum Area detected (μm^2)	25.84
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	6.38

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE26X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	15.37
3) Median (μm^2)	5.00
4) Mode (μm^2)	2.10
5) Number Of Particles	17
6) Total Areas (μm^2)	2.6122E+ 2
7) Maximum Area detected (μm^2)	40.19
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	12.87

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE26X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	17.67
3) Median (μm^2)	6.80
4) Mode (μm^2)	2.10
5) Number Of Particles	13
6) Total Areas (μm^2)	2.2965E+ 2
7) Maximum Area detected (μm^2)	40.19
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	11.91

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE27X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	20.71
3) Median (μm^2)	13.20
4) Mode (μm^2)	11.77
5) Number Of Particles	14
6) Total Areas (μm^2)	2.8993E+ 2
7) Maximum Area detected (μm^2)	45.93
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	14.48

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE27X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	15.68
3) Median (μm^2)	16.27
4) Mode (μm^2)	16.50
5) Number Of Particles	13
6) Total Areas (μm^2)	2.0381E+ 2
7) Maximum Area detected (μm^2)	34.45
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	9.46

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE28X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	20.50
3) Median (μm^2)	3.84
4) Mode (μm^2)	2.10
5) Number Of Particles	14
6) Total Areas (μm^2)	2.8706E+ 2
7) Maximum Area detected (μm^2)	45.93
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	16.45

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE28X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	18.95
3) Median (μm^2)	5.60
4) Mode (μm^2)	2.10
5) Number Of Particles	20
6) Total Areas (μm^2)	3.7892E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	15.09

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE29X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	14.76
3) Median (μm^2)	4.40
4) Mode (μm^2)	2.10
5) Number Of Particles	14
6) Total Areas (μm^2)	2.0668E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	14.26

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE29X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	15.63
3) Median (μm^2)	5.20
4) Mode (μm^2)	2.10
5) Number Of Particles	9
6) Total Areas (μm^2)	1.4066E+ 2
7) Maximum Area detected (μm^2)	45.93
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	12.85

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE30X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	20.54
3) Median (μm^2)	13.60
4) Mode (μm^2)	11.70
5) Number Of Particles	13
6) Total Areas (μm^2)	2.6696E+ 2
7) Maximum Area detected (μm^2)	40.19
8) Minimum Area detected (μm^2)	5.74
9) Standard Deviation	10.19

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE30X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	12.81
3) Median (μm^2)	7.40
4) Mode (μm^2)	5.30
5) Number Of Particles	13
6) Total Areas (μm^2)	1.6649E+ 2
7) Maximum Area detected (μm^2)	34.45
8) Minimum Area detected (μm^2)	5.74
9) Standard Deviation	8.17

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE31X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	22.76
3) Median (μm^2)	9.60
4) Mode (μm^2)	5.30
5) Number Of Particles	14
6) Total Areas (μm^2)	3.1863E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	14.78

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE31X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	8.90
3) Median (μm^2)	3.20
4) Mode (μm^2)	2.10
5) Number Of Particles	10
6) Total Areas (μm^2)	8.8987E+ 1
7) Maximum Area detected (μm^2)	28.71
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	7.75

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE32X1

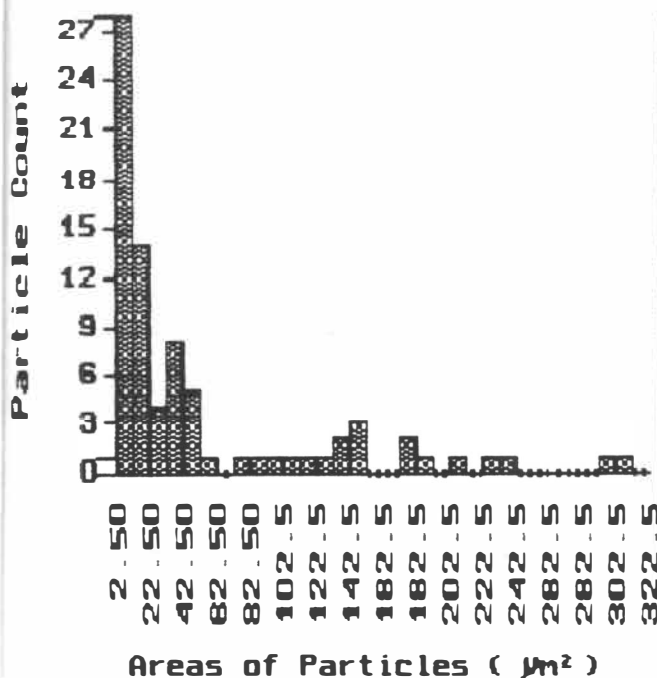
1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	16.65
3) Median (μm^2)	5.60
4) Mode (μm^2)	2.10
5) Number Of Particles	15
6) Total Areas (μm^2)	2.4974E+ 2
7) Maximum Area detected (μm^2)	45.93
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	13.63

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : ISE32X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	20.26
3) Median (μm^2)	7.40
4) Mode (μm^2)	5.30
5) Number Of Particles	17
6) Total Areas (μm^2)	3.4447E+ 2
7) Maximum Area detected (μm^2)	37.32
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	13.55

BEFORE DEINKING ANALYSIS

Paper ID : ISE1



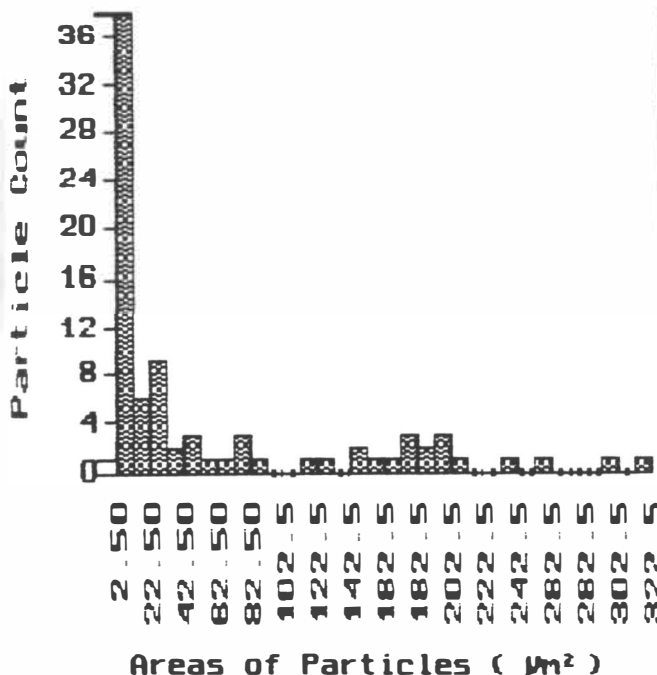
HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%
1	2.50 - 12.50	281.5		17	162.5 - 172.5	0.0	
2	12.50 - 22.50	142.0		18	172.5 - 182.5	2.2	
3	22.50 - 32.50	40.8		19	182.5 - 192.5	1.1	
4	32.50 - 42.50	82.4		20	192.5 - 202.5	0.0	
5	42.50 - 52.50	51.9		21	202.5 - 212.5	1.1	
6	52.50 - 62.50	10.4		22	212.5 - 222.5	0.0	
7	62.50 - 72.50	00.0		23	222.5 - 232.5	1.1	
8	72.50 - 82.50	10.6		24	232.5 - 242.5	1.1	
9	82.50 - 92.50	10.7		25	242.5 - 252.5	0.0	
10	92.50 - 102.5	10.7		26	252.5 - 262.5	0.0	
11	102.5 - 112.5	10.8		27	262.5 - 272.5	0.0	
12	112.5 - 122.5	10.9		28	272.5 - 282.5	0.0	
13	122.5 - 132.5	11.0		29	282.5 - 292.5	0.0	
14	132.5 - 142.5	22.2		30	292.5 - 302.5	1.2	
15	142.5 - 152.5	33.5		31	302.5 - 312.5	1.2	
16	152.5 - 162.5	00.0		32	312.5 - 322.5	0.0	

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 28
Min. Part. Count 1

BEFORE DEINKING ANALYSIS

Paper ID : ISE2



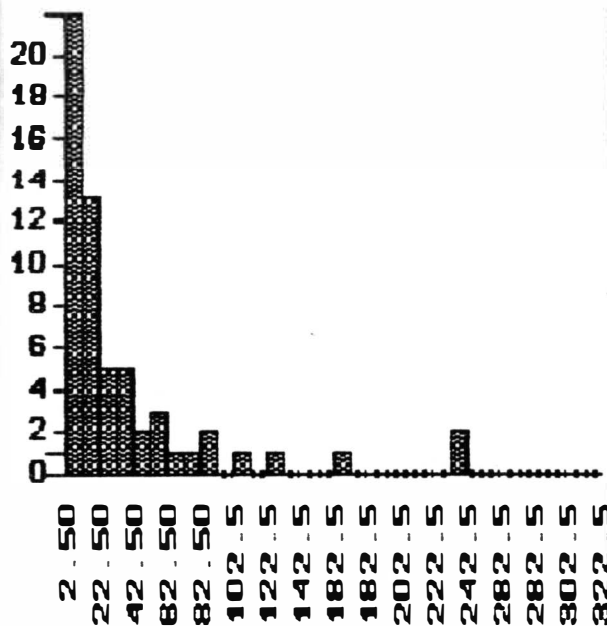
HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%
1	2.50 - 12.50	382.2		17	162.5 - 172.5	1.1	
2	12.50 - 22.50	60.9		18	172.5 - 182.5	3.4	
3	22.50 - 32.50	91.9		19	182.5 - 192.5	2.3	
4	32.50 - 42.50	20.5		20	192.5 - 202.5	3.4	
5	42.50 - 52.50	31.1		21	202.5 - 212.5	1.1	
6	52.50 - 62.50	10.4		22	212.5 - 222.5	0.0	
7	62.50 - 72.50	10.5		23	222.5 - 232.5	0.0	
8	72.50 - 82.50	31.9		24	232.5 - 242.5	1.1	
9	82.50 - 92.50	10.7		25	242.5 - 252.5	0.0	
10	92.50 - 102.5	00.0		26	252.5 - 262.5	1.2	
11	102.5 - 112.5	00.0		27	262.5 - 272.5	0.0	
12	112.5 - 122.5	10.9		28	272.5 - 282.5	0.0	
13	122.5 - 132.5	11.0		29	282.5 - 292.5	0.0	
14	132.5 - 142.5	00.0		30	292.5 - 302.5	1.2	
15	142.5 - 152.5	22.3		31	302.5 - 312.5	0.0	
16	152.5 - 162.5	11.3		32	312.5 - 322.5	1.2	

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 38
Min. Part. Count 1

BEFORE DEINKING ANALYSIS

Paper ID : ISE3



Areas of Particles (μm^2)

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

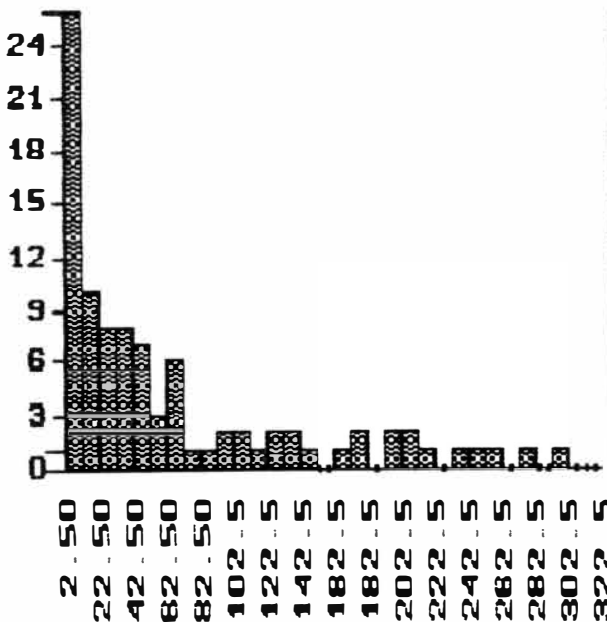
HISTOGRAM TABLE

Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	22	0.3	17	162.5 - 172.5	1	0.0
2	12.50 - 22.50	13	0.5	18	172.5 - 182.5	0	0.0
3	22.50 - 32.50	5	0.3	19	182.5 - 192.5	0	0.0
4	32.50 - 42.50	5	0.4	20	192.5 - 202.5	0	0.0
5	42.50 - 52.50	2	0.2	21	202.5 - 212.5	0	0.0
6	52.50 - 62.50	3	0.4	22	212.5 - 222.5	0	0.0
7	62.50 - 72.50	1	0.1	23	222.5 - 232.5	0	0.0
8	72.50 - 82.50	1	0.2	24	232.5 - 242.5	2	1.1
9	82.50 - 92.50	2	0.4	25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	0	0.0	26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	1	0.2	27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	0	0.0	28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	1	0.3	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	0	0.0	30	292.5 - 302.5	0	0.0
15	142.5 - 152.5	0	0.0	31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	0	0.0	32	312.5 - 322.5	0	0.0

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 22
Min. Part. Count 1

BEFORE DEINKING ANALYSIS

Paper ID : ISE4



Areas of Particles (μm^2)

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

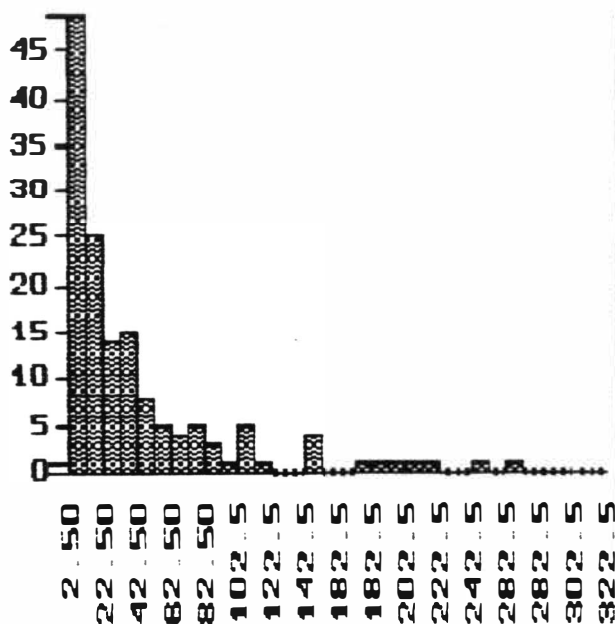
HISTOGRAM TABLE

Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	24	0.4	17	162.5 - 172.5	1	0.0
2	12.50 - 22.50	10	0.4	18	172.5 - 182.5	2	0.9
3	22.50 - 32.50	8	0.5	19	182.5 - 192.5	0	0.0
4	32.50 - 42.50	8	0.7	20	192.5 - 202.5	2	1.0
5	42.50 - 52.50	7	0.9	21	202.5 - 212.5	2	1.0
6	52.50 - 62.50	3	0.4	22	212.5 - 222.5	1	0.9
7	62.50 - 72.50	6	1.0	23	222.5 - 232.5	0	0.0
8	72.50 - 82.50	1	0.1	24	232.5 - 242.5	1	0.6
9	82.50 - 92.50	1	0.2	25	242.5 - 252.5	1	0.6
10	92.50 - 102.5	2	0.5	26	252.5 - 262.5	1	0.6
11	102.5 - 112.5	2	0.5	27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	1	0.2	28	272.5 - 282.5	1	0.7
13	122.5 - 132.5	2	0.6	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	2	0.7	30	292.5 - 302.5	1	0.7
15	142.5 - 152.5	1	0.3	31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	0	0.0	32	312.5 - 322.5	0	0.0

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 26
Min. Part. Count 1

BEFORE DEINKING ANALYSIS

Paper ID : 1SE5



Areas of Particles (μm^2)

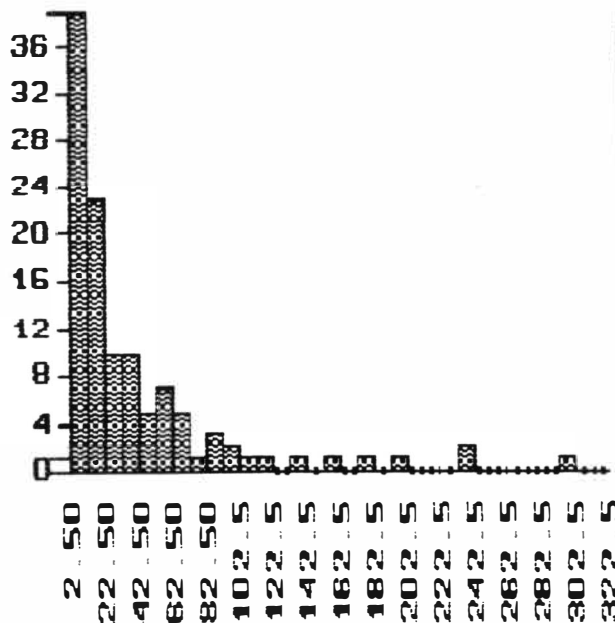
HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	49	2.8	17	162.5 - 172.5	0	0.0
2	12.50 - 22.50	25	3.4	18	172.5 - 182.5	1	1.1
3	22.50 - 32.50	14	3.3	19	182.5 - 192.5	1	1.1
4	32.50 - 42.50	15	4.5	20	192.5 - 202.5	1	1.1
5	42.50 - 52.50	8	3.0	21	202.5 - 212.5	1	1.1
6	52.50 - 62.50	5	2.3	22	212.5 - 222.5	1	1.1
7	62.50 - 72.50	4	2.2	23	222.5 - 232.5	0	0.0
8	72.50 - 82.50	5	3.1	24	232.5 - 242.5	0	0.0
9	82.50 - 92.50	3	2.2	25	242.5 - 252.5	1	2.2
10	92.50 - 102.5	1	0.7	26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	5	4.4	27	262.5 - 272.5	1	2.2
12	112.5 - 122.5	1	0.9	28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	0	0.0	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	0	0.0	30	292.5 - 302.5	0	0.0
15	142.5 - 152.5	4	4.8	31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	0	0.0	32	312.5 - 322.5	0	0.0

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 49
Min. Part. Count 1

BEFORE DEINKING ANALYSIS

Paper ID : 1SE6

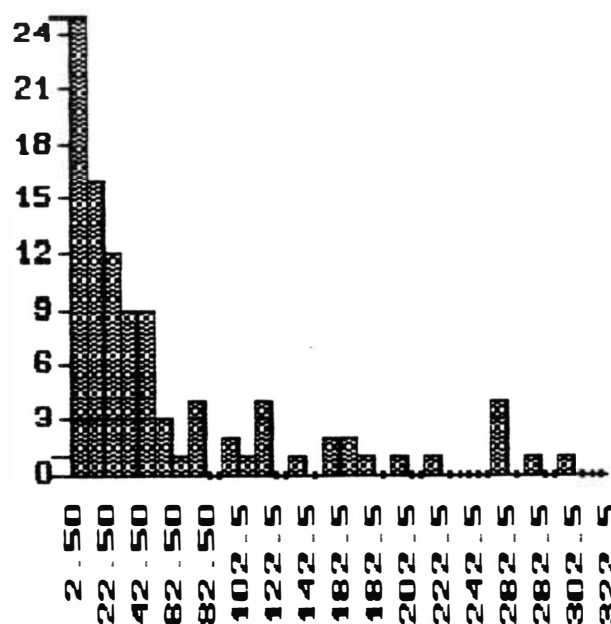


Areas of Particles (μm^2)

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	39	4.0	17	162.5 - 172.5	0	0.0
2	12.50 - 22.50	23	7.3	18	172.5 - 182.5	1	1.3
3	22.50 - 32.50	10	4.8	19	182.5 - 192.5	0	0.0
4	32.50 - 42.50	10	6.5	20	192.5 - 202.5	1	1.3
5	42.50 - 52.50	5	4.1	21	202.5 - 212.5	0	0.0
6	52.50 - 62.50	7	7.0	22	212.5 - 222.5	0	0.0
7	62.50 - 72.50	5	6.0	23	222.5 - 232.5	0	0.0
8	72.50 - 82.50	1	1.4	24	232.5 - 242.5	2	2.8
9	82.50 - 92.50	3	4.8	25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	2	3.4	26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	1	1.9	27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	1	2.1	28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	0	0.0	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	1	2.4	30	292.5 - 302.5	1	1.5
15	142.5 - 152.5	0	0.0	31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	1	2.8	32	312.5 - 322.5	0	0.0

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 39
Min. Part. Count 1



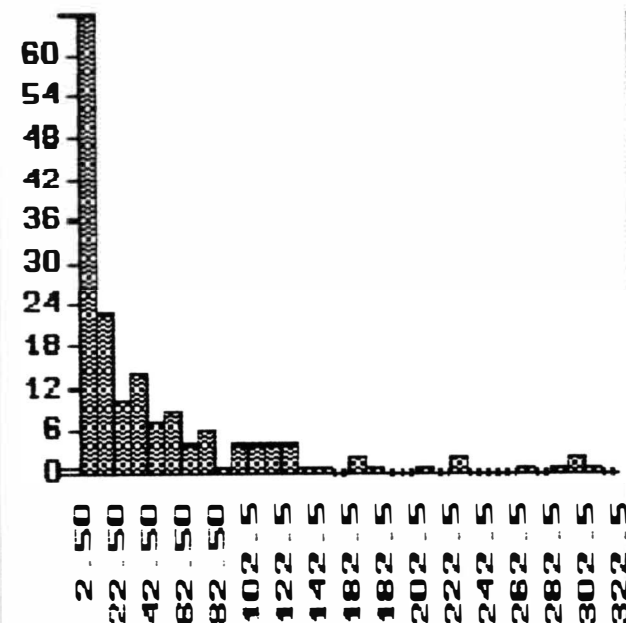
Areas of Particles (μm^2)

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	25	1.6	17	162.5 - 172.5	2	3.9
2	12.50 - 22.50	16	3.1	18	172.5 - 182.5	1	1.9
3	22.50 - 32.50	12	3.5	19	182.5 - 192.5	0	0.0
4	32.50 - 42.50	9	3.3	20	192.5 - 202.5	1	2.0
5	42.50 - 52.50	9	4.4	21	202.5 - 212.5	0	0.0
6	52.50 - 62.50	3	1.8	22	212.5 - 222.5	1	2.2
7	62.50 - 72.50	1	0.7	23	222.5 - 232.5	0	0.0
8	72.50 - 82.50	4	3.2	24	232.5 - 242.5	0	0.0
9	82.50 - 92.50	0	0.0	25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	2	2.1	26	252.5 - 262.5	4	11.1
11	102.5 - 112.5	1	1.1	27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	4	4.9	28	272.5 - 282.5	1	2.9
13	122.5 - 132.5	0	0.0	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	1	1.4	30	292.5 - 302.5	1	3.2
15	142.5 - 152.5	0	0.0	31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	2	3.4	32	312.5 - 322.5	0	0.0

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 25
Min. Part. Count 1

BEFORE DEINKING ANALYSIS

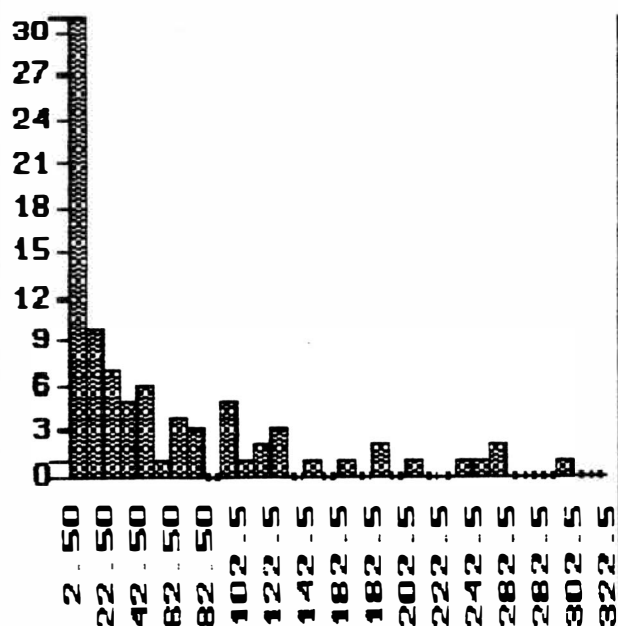


Areas of Particles (μm^2)

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	66	2.6	17	162.5 - 172.5	2	2.9
2	12.50 - 22.50	23	2.6	18	172.5 - 182.5	1	1.9
3	22.50 - 32.50	10	1.7	19	182.5 - 192.5	0	0.0
4	32.50 - 42.50	14	3.1	20	192.5 - 202.5	0	0.0
5	42.50 - 52.50	7	2.1	21	202.5 - 212.5	1	1.3
6	52.50 - 62.50	9	3.3	22	212.5 - 222.5	0	0.0
7	62.50 - 72.50	4	1.6	23	222.5 - 232.5	2	2.3
8	72.50 - 82.50	6	3.0	24	232.5 - 242.5	0	0.0
9	82.50 - 92.50	1	0.5	25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	4	2.5	26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	4	2.7	27	262.5 - 272.5	1	1.1
12	112.5 - 122.5	4	2.9	28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	4	3.2	29	282.5 - 292.5	1	1.1
14	132.5 - 142.5	1	0.8	30	292.5 - 302.5	2	3.9
15	142.5 - 152.5	1	0.9	31	302.5 - 312.5	1	1.1
16	152.5 - 162.5	0	0.0	32	312.5 - 322.5	0	0.0

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 66
Min. Part. Count 1



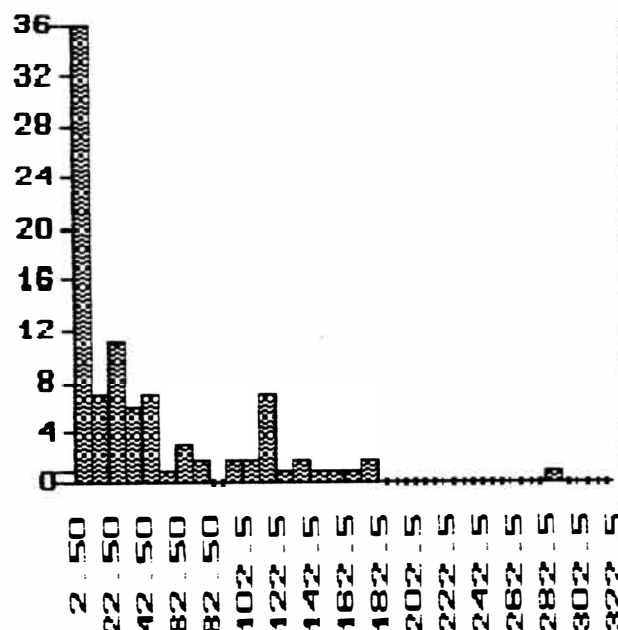
Areas of Particles (μm^2)

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	31	3.1	17	162.5 - 172.5	1	2.8
2	12.50 - 22.50	10	2.8	18	172.5 - 182.5	0	0.0
3	22.50 - 32.50	7	3.0	19	182.5 - 192.5	2	6.5
4	32.50 - 42.50	5	3.0	20	192.5 - 202.5	0	0.0
5	42.50 - 52.50	6	4.9	21	202.5 - 212.5	1	3.5
6	52.50 - 62.50	10	9	22	212.5 - 222.5	0	0.0
7	62.50 - 72.50	4	4.5	23	222.5 - 232.5	0	0.0
8	72.50 - 82.50	3	3.9	24	232.5 - 242.5	1	4.1
9	82.50 - 92.50	0	0.0	25	242.5 - 252.5	1	4.2
10	92.50 - 102.5	5	8.1	26	252.5 - 262.5	2	8.7
11	102.5 - 112.5	1	1.7	27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	2	4.0	28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	3	3.3	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	0	0.0	30	292.5 - 302.5	1	5.0
15	142.5 - 152.5	1	2.4	31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	0	0.0	32	312.5 - 322.5	0	0.0

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 31
Min. Part. Count 1

BEFORE DEINKING ANALYSIS



Areas of Particles (μm^2)

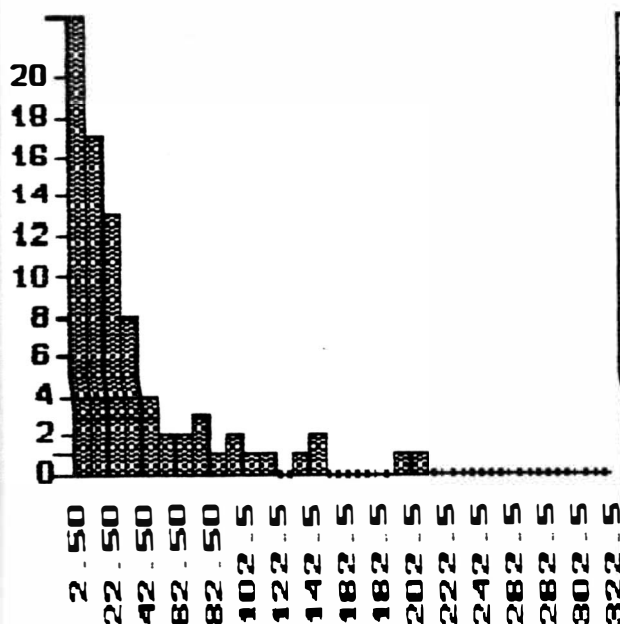
HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	36	0.3	17	162.5 - 172.5	1	10.3
2	12.50 - 22.50	7	0.2	18	172.5 - 182.5	2	20.6
3	22.50 - 32.50	11	0.5	19	182.5 - 192.5	0	0.0
4	32.50 - 42.50	6	0.4	20	192.5 - 202.5	0	0.0
5	42.50 - 52.50	7	0.6	21	202.5 - 212.5	0	0.0
6	52.50 - 62.50	10	1	22	212.5 - 222.5	0	0.0
7	62.50 - 72.50	3	0.4	23	222.5 - 232.5	0	0.0
8	72.50 - 82.50	2	0.3	24	232.5 - 242.5	0	0.0
9	82.50 - 92.50	0	0.0	25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	2	0.3	26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	2	0.4	27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	7	1.5	28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	1	0.2	29	282.5 - 292.5	1	10.3
14	132.5 - 142.5	2	0.5	30	292.5 - 302.5	0	0.0
15	142.5 - 152.5	1	0.2	31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	1	0.3	32	312.5 - 322.5	0	0.0

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 36
Min. Part. Count 1

BEFORE DEINKING ANALYSIS

Paper ID : ISE11



Areas of Particles (μm^2)

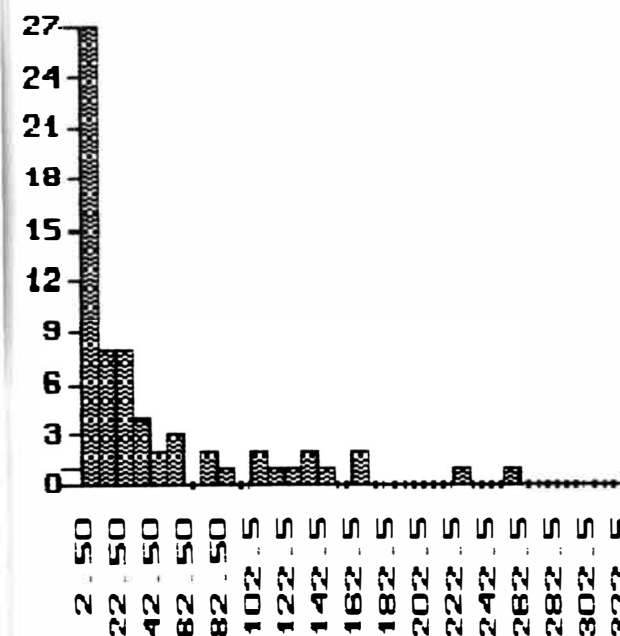
HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	23	2.3	17	162.5 - 172.5	0	0.0
2	12.50 - 22.50	17	4.8	18	172.5 - 182.5	0	0.0
3	22.50 - 32.50	13	5.4	19	182.5 - 192.5	0	0.0
4	32.50 - 42.50	8	4.5	20	192.5 - 202.5	1	3.1
5	42.50 - 52.50	4	3.0	21	202.5 - 212.5	1	3.2
6	52.50 - 62.50	2	1.8	22	212.5 - 222.5	0	0.0
7	62.50 - 72.50	2	2.2	23	222.5 - 232.5	0	0.0
8	72.50 - 82.50	3	3.9	24	232.5 - 242.5	0	0.0
9	82.50 - 92.50	1	1.4	25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	2	2.8	26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	1	1.7	27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	1	1.8	28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	0	0.0	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	1	2.1	30	292.5 - 302.5	0	0.0
15	142.5 - 152.5	2	4.6	31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	0	0.0	32	312.5 - 322.5	0	0.0

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 23
Min. Part. Count 1

BEFORE DEINKING ANALYSIS

Paper ID : ISE12



Areas of Particles (μm^2)

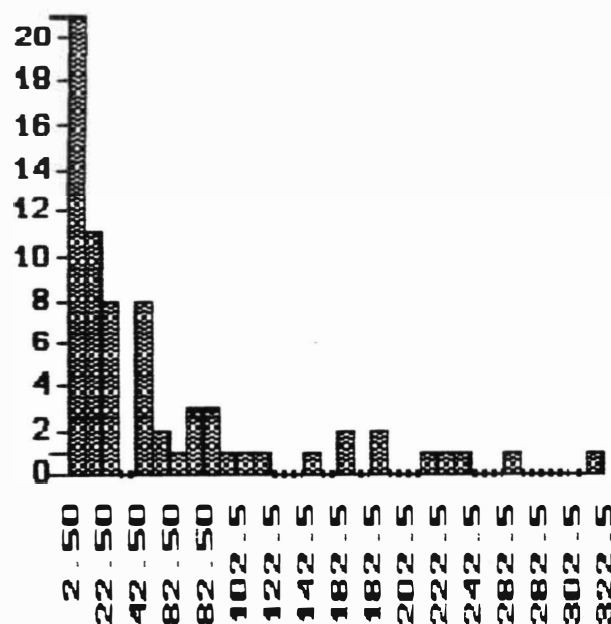
HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	27	2.7	17	162.5 - 172.5	2	5.2
2	12.50 - 22.50	8	2.1	18	172.5 - 182.5	0	0.0
3	22.50 - 32.50	8	3.3	19	182.5 - 192.5	0	0.0
4	32.50 - 42.50	4	2.2	20	192.5 - 202.5	0	0.0
5	42.50 - 52.50	2	1.4	21	202.5 - 212.5	0	0.0
6	52.50 - 62.50	3	2.7	22	212.5 - 222.5	0	0.0
7	62.50 - 72.50	0	0.0	23	222.5 - 232.5	1	3.5
8	72.50 - 82.50	2	2.4	24	232.5 - 242.5	0	0.0
9	82.50 - 92.50	1	1.3	25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	0	0.0	26	252.5 - 262.5	1	4.0
11	102.5 - 112.5	2	3.3	27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	1	1.8	28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	1	2.0	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	2	4.2	30	292.5 - 302.5	0	0.0
15	142.5 - 152.5	1	2.2	31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	0	0.0	32	312.5 - 322.5	0	0.0

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 27
Min. Part. Count 1

BEFORE DEINKING ANALYSIS

Paper ID : ISE13



Areas of Particles (μm^2)

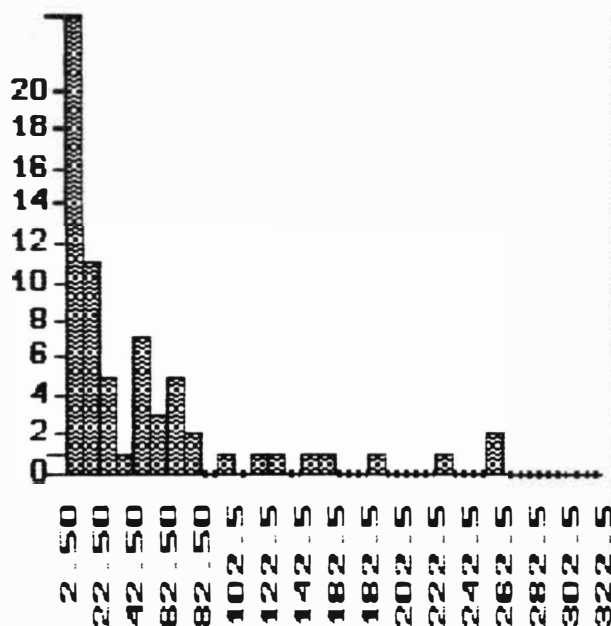
HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	21	11.1	17	162.5 - 172.5	2	2.9
2	12.50 - 22.50	11	1.6	18	172.5 - 182.5	0	0.0
3	22.50 - 32.50	8	1.9	19	182.5 - 192.5	2	3.3
4	32.50 - 42.50	0	0.0	20	192.5 - 202.5	0	0.0
5	42.50 - 52.50	8	3.2	21	202.5 - 212.5	0	0.0
6	52.50 - 62.50	2	1.0	22	212.5 - 222.5	1	1.9
7	62.50 - 72.50	1	0.5	23	222.5 - 232.5	1	2.0
8	72.50 - 82.50	3	2.0	24	232.5 - 242.5	1	2.1
9	82.50 - 92.50	3	2.3	25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	1	0.8	26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	1	0.9	27	262.5 - 272.5	1	2.3
12	112.5 - 122.5	1	1.0	28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	0	0.0	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	0	0.0	30	292.5 - 302.5	0	0.0
15	142.5 - 152.5	1	1.3	31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	0	0.0	32	312.5 - 322.5	1	2.8

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 21
Min. Part. Count 1

BEFORE DEINKING ANALYSIS

Paper ID : ISE14



Areas of Particles (μm^2)

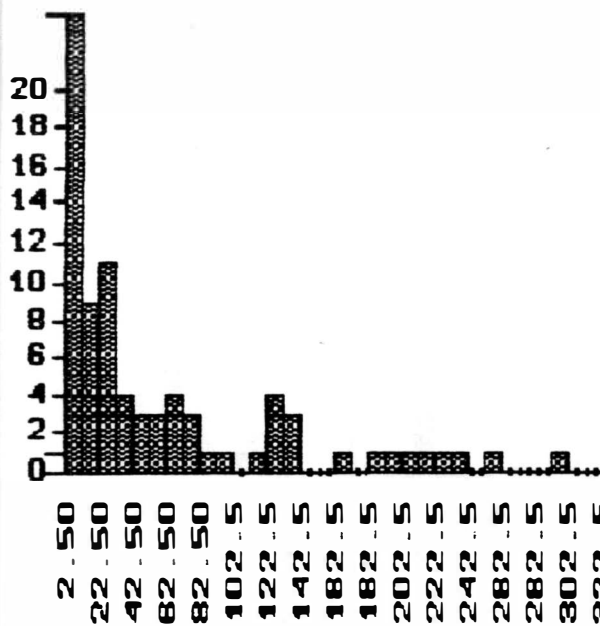
HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	24	1.4	17	162.5 - 172.5	0	0.0
2	12.50 - 22.50	11	2.1	18	172.5 - 182.5	0	0.0
3	22.50 - 32.50	5	1.5	19	182.5 - 192.5	1	2.0
4	32.50 - 42.50	1	0.4	20	192.5 - 202.5	0	0.0
5	42.50 - 52.50	7	3.5	21	202.5 - 212.5	0	0.0
6	52.50 - 62.50	3	1.8	22	212.5 - 222.5	0	0.0
7	62.50 - 72.50	5	3.5	23	222.5 - 232.5	1	2.1
8	72.50 - 82.50	2	1.6	24	232.5 - 242.5	0	0.0
9	82.50 - 92.50	0	0.0	25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	1	1.0	26	252.5 - 262.5	2	5.3
11	102.5 - 112.5	0	0.0	27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	1	1.2	28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	1	1.3	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	0	0.0	30	292.5 - 302.5	0	0.0
15	142.5 - 152.5	1	1.6	31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	1	1.7	32	312.5 - 322.5	0	0.0

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 24
Min. Part. Count 1

BEFORE DEINKING ANALYSIS

Paper ID : 1SE15



Areas of Particles (μm^2)

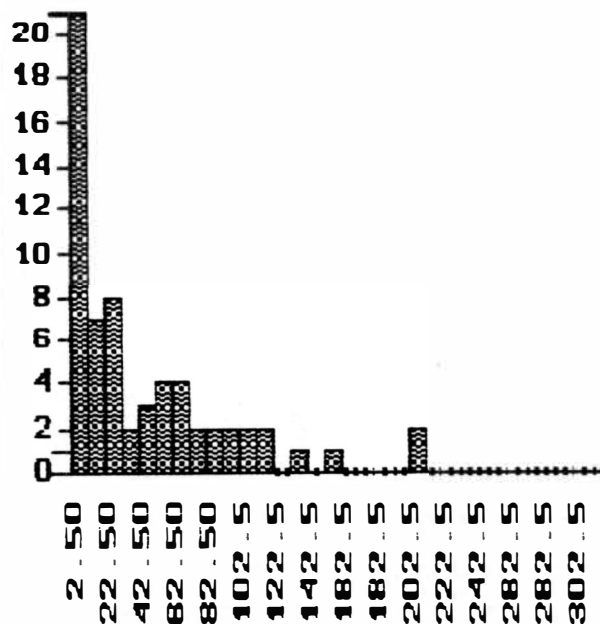
HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	240.7		17	162.5 - 172.5	1	0.8
2	12.50 - 22.50	90.7		18	172.5 - 182.5	0	0.0
3	22.50 - 32.50	111.5		19	182.5 - 192.5	1	0.9
4	32.50 - 42.50	40.7		20	192.5 - 202.5	1	0.9
5	42.50 - 52.50	30.6		21	202.5 - 212.5	1	1.0
6	52.50 - 62.50	30.8		22	212.5 - 222.5	1	1.0
7	62.50 - 72.50	41.2		23	222.5 - 232.5	1	1.1
8	72.50 - 82.50	31.1		24	232.5 - 242.5	1	1.1
9	82.50 - 92.50	10.4		25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	10.4		26	252.5 - 262.5	1	1.3
11	102.5 - 112.5	00.0		27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	10.6		28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	42.5		29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	32.0		30	292.5 - 302.5	1	1.4
15	142.5 - 152.5	00.0		31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	00.0		32	312.5 - 322.5	0	0.0

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 24
Min. Part. Count 1

BEFORE DEINKING ANALYSIS

Paper ID : 1SE16



Areas of Particles (μm^2)

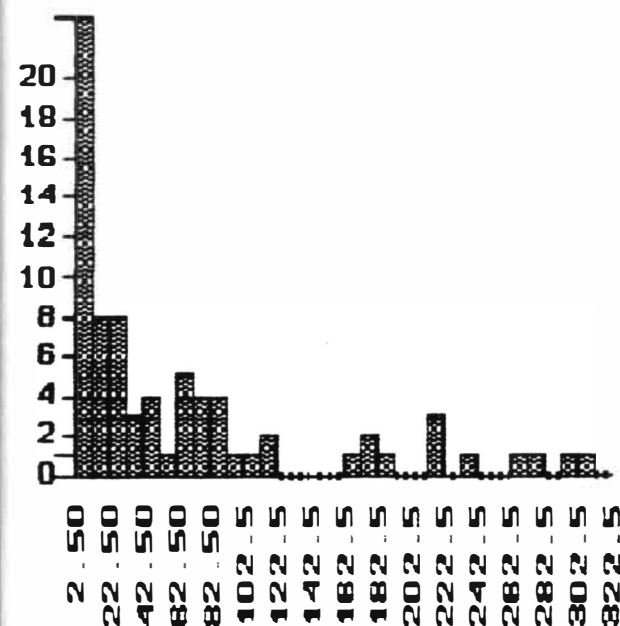
HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	214.1		17	162.5 - 172.5	0	0.0
2	12.50 - 22.50	73.6		18	172.5 - 182.5	0	0.0
3	22.50 - 32.50	86.6		19	182.5 - 192.5	0	0.0
4	32.50 - 42.50	22.4		20	192.5 - 202.5	0	0.0
5	42.50 - 52.50	34.3		21	202.5 - 212.5	2	1.3
6	52.50 - 62.50	47.2		22	212.5 - 222.5	0	0.0
7	62.50 - 72.50	48.1		23	222.5 - 232.5	0	0.0
8	72.50 - 82.50	24.8		24	232.5 - 242.5	0	0.0
9	82.50 - 92.50	25.6		25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	26.0		26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	26.6		27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	27.2		28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	00.0		29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	14.3		30	292.5 - 302.5	0	0.0
15	142.5 - 152.5	00.0		31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	14.9		32	312.5 - 322.5	0	0.0

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 21
Min. Part. Count 1

BEFORE DEINKING ANALYSIS

Paper ID : ISE17



Areas of Particles (μm^2)

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

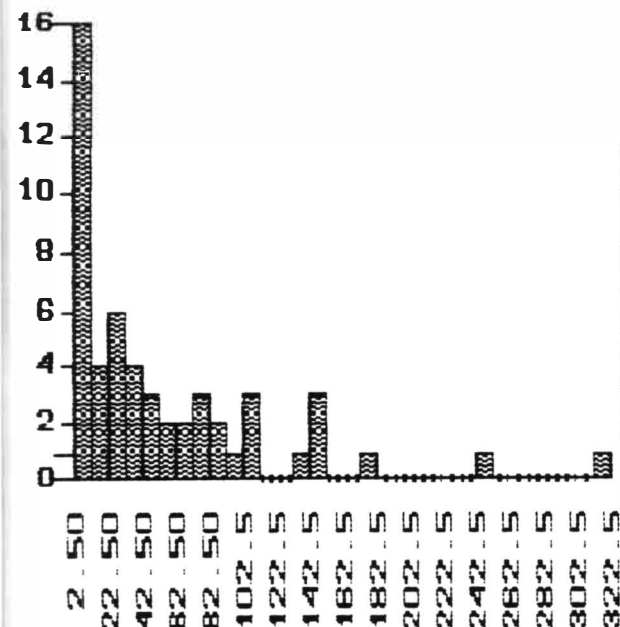
HISTOGRAM TABLE

Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	23	2.1	17	162.5 - 172.5	1	2.4
2	12.50 - 22.50	8	1.8	18	172.5 - 182.5	2	5.0
3	22.50 - 32.50	8	3.1	19	182.5 - 192.5	1	2.6
4	32.50 - 42.50	3	1.5	20	192.5 - 202.5	0	0.0
5	42.50 - 52.50	4	2.8	21	202.5 - 212.5	0	0.0
6	52.50 - 62.50	1	0.8	22	212.5 - 222.5	3	9.1
7	62.50 - 72.50	5	4.6	23	222.5 - 232.5	0	0.0
8	72.50 - 82.50	4	4.2	24	232.5 - 242.5	1	3.2
9	82.50 - 92.50	4	4.8	25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	1	1.3	26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	1	1.5	27	262.5 - 272.5	1	3.6
12	112.5 - 122.5	2	3.3	28	272.5 - 282.5	1	3.8
13	122.5 - 132.5	0	0.0	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	0	0.0	30	292.5 - 302.5	1	4.1
15	142.5 - 152.5	0	0.0	31	302.5 - 312.5	1	4.3
16	152.5 - 162.5	0	0.0	32	312.5 - 322.5	0	0.0

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 23
Min. Part. Count 1

BEFORE DEINKING ANALYSIS

Paper ID : ISE18



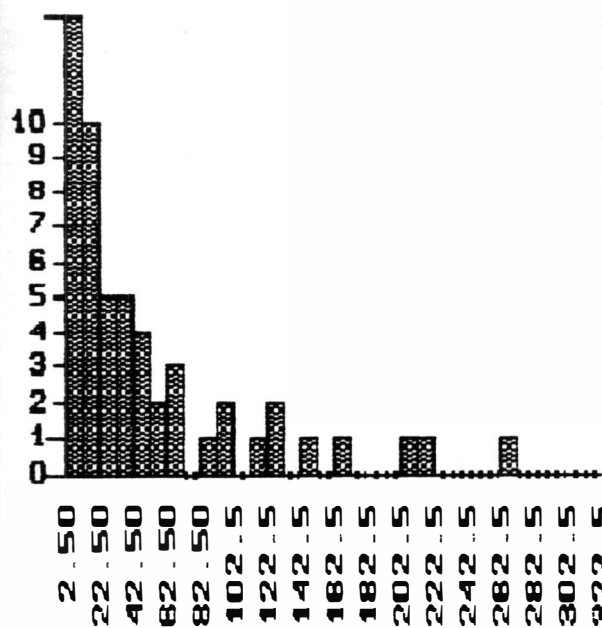
Areas of Particles (μm^2)

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE

Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	16	1.2	17	162.5 - 172.5	0	0.0
2	12.50 - 22.50	4	0.7	18	172.5 - 182.5	1	1.9
3	22.50 - 32.50	6	1.8	19	182.5 - 192.5	0	0.0
4	32.50 - 42.50	4	1.6	20	192.5 - 202.5	0	0.0
5	42.50 - 52.50	3	1.6	21	202.5 - 212.5	0	0.0
6	52.50 - 62.50	2	1.3	22	212.5 - 222.5	0	0.0
7	62.50 - 72.50	2	1.4	23	222.5 - 232.5	0	0.0
8	72.50 - 82.50	3	2.6	24	232.5 - 242.5	0	0.0
9	82.50 - 92.50	2	1.9	25	242.5 - 252.5	1	2.8
10	92.50 - 102.5	1	1.1	26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	3	3.5	27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	0	0.0	28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	0	0.0	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	1	1.5	30	292.5 - 302.5	0	0.0
15	142.5 - 152.5	3	5.0	31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	0	0.0	32	312.5 - 322.5	1	3.6

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 16
Min. Part. Count 1



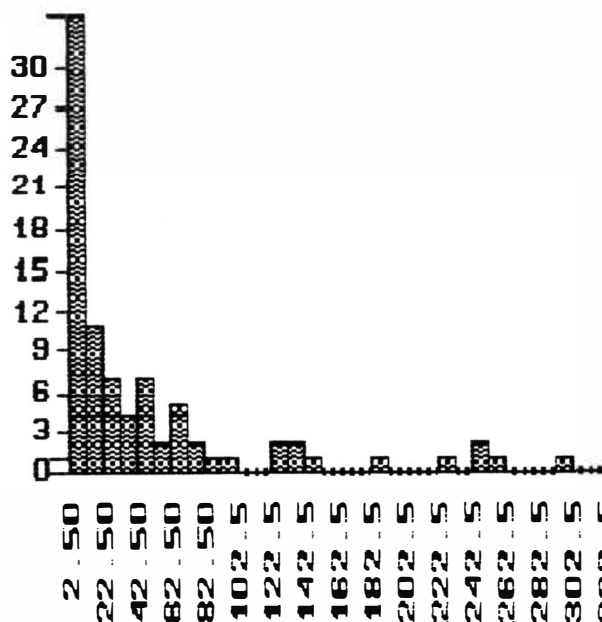
Areas of Particles (μm^2)

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	130.0		17	162.5 - 172.5	1	0.1
2	12.50 - 22.50	100.1		18	172.5 - 182.5	0	0.0
3	22.50 - 32.50	50.1		19	182.5 - 192.5	0	0.0
4	32.50 - 42.50	50.1		20	192.5 - 202.5	0	0.0
5	42.50 - 52.50	40.1		21	202.5 - 212.5	1	0.1
6	52.50 - 62.50	20.1		22	212.5 - 222.5	1	0.1
7	62.50 - 72.50	30.1		23	222.5 - 232.5	0	0.0
8	72.50 - 82.50	00.0		24	232.5 - 242.5	0	0.0
9	82.50 - 92.50	10.0		25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	20.1		26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	00.0		27	262.5 - 272.5	1	0.2
12	112.5 - 122.5	10.1		28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	20.2		29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	00.0		30	292.5 - 302.5	0	0.0
15	142.5 - 152.5	10.1		31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	00.0		32	312.5 - 322.5	0	0.0

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 13
Min. Part. Count 1

BEFORE DEINKING ANALYSIS

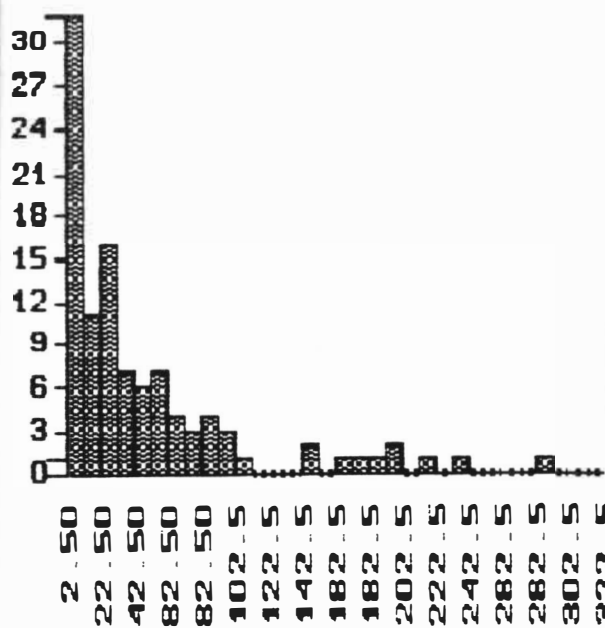


Areas of Particles (μm^2)

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	341.3		17	162.5 - 172.5	0	0.0
2	12.50 - 22.50	111.1		18	172.5 - 182.5	0	0.0
3	22.50 - 32.50	71.1		19	182.5 - 192.5	1	1.1
4	32.50 - 42.50	40.8		20	192.5 - 202.5	0	0.0
5	42.50 - 52.50	72.0		21	202.5 - 212.5	0	0.0
6	52.50 - 62.50	20.6		22	212.5 - 222.5	0	0.0
7	62.50 - 72.50	51.9		23	222.5 - 232.5	1	1.3
8	72.50 - 82.50	20.9		24	232.5 - 242.5	0	0.0
9	82.50 - 92.50	10.5		25	242.5 - 252.5	2	2.9
10	92.50 - 102.5	10.6		26	252.5 - 262.5	1	1.5
11	102.5 - 112.5	00.0		27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	00.0		28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	21.5		29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	21.6		30	292.5 - 302.5	1	1.7
15	142.5 - 152.5	10.8		31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	00.0		32	312.5 - 322.5	0	0.0

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 34
Min. Part. Count 1



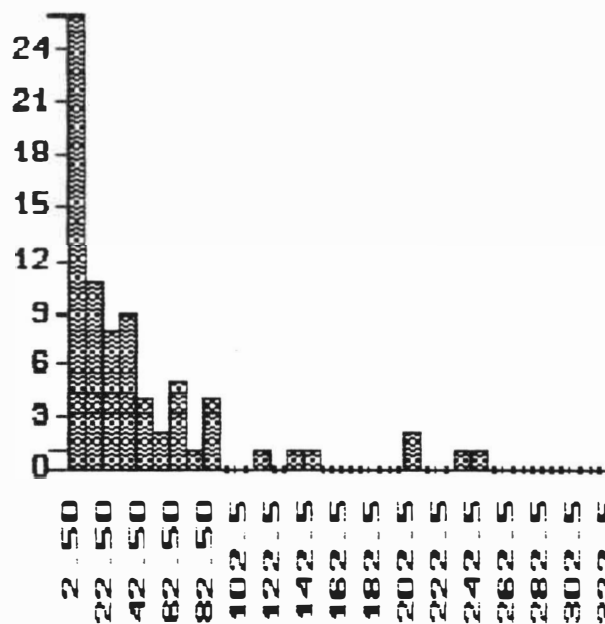
Areas of Particles (μm^2)

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	32	2.7	17	162.5 - 172.5	1	2.0
2	12.50 - 22.50	11	2.3	18	172.5 - 182.5	1	2.3
3	22.50 - 32.50	16	5.6	19	182.5 - 192.5	1	2.4
4	32.50 - 42.50	7	3.1	20	192.5 - 202.5	2	5.0
5	42.50 - 52.50	6	3.5	21	202.5 - 212.5	0	0.0
6	52.50 - 62.50	7	5.1	22	212.5 - 222.5	1	2.8
7	62.50 - 72.50	4	3.4	23	222.5 - 232.5	0	0.0
8	72.50 - 82.50	3	2.9	24	232.5 - 242.5	1	3.0
9	82.50 - 92.50	4	4.4	25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	3	3.6	26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	1	1.3	27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	0	0.0	28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	0	0.0	29	282.5 - 292.5	1	3.6
14	132.5 - 142.5	0	0.0	30	292.5 - 302.5	0	0.0
15	142.5 - 152.5	2	3.7	31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	0	0.0	32	312.5 - 322.5	0	0.0

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 32
Min. Part. Count 1

BEFORE DEINKING ANALYSIS

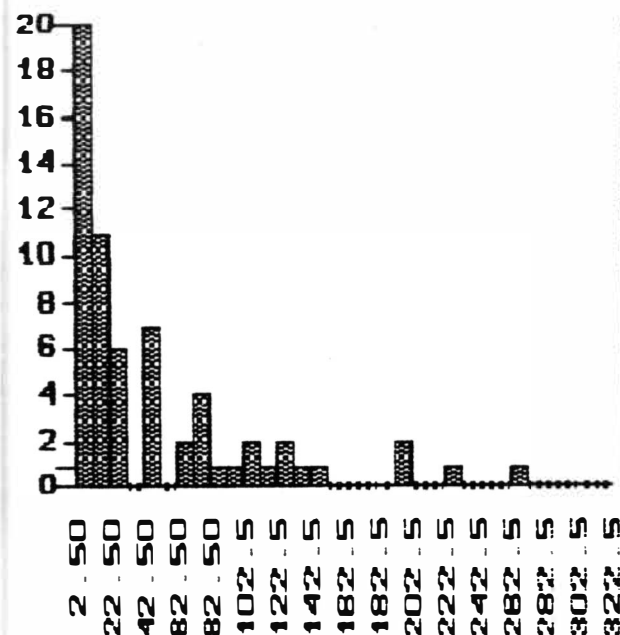


Areas of Particles (μm^2)

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	26	2.3	17	162.5 - 172.5	0	0.0
2	12.50 - 22.50	11	2.1	18	172.5 - 182.5	0	0.0
3	22.50 - 32.50	8	2.9	19	182.5 - 192.5	0	0.0
4	32.50 - 42.50	9	4.1	20	192.5 - 202.5	0	0.0
5	42.50 - 52.50	4	2.3	21	202.5 - 212.5	2	5.3
6	52.50 - 62.50	2	1.4	22	212.5 - 222.5	0	0.0
7	62.50 - 72.50	5	4.2	23	222.5 - 232.5	0	0.0
8	72.50 - 82.50	1	0.9	24	232.5 - 242.5	1	3.0
9	82.50 - 92.50	4	4.3	25	242.5 - 252.5	1	3.1
10	92.50 - 102.5	0	0.0	26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	0	0.0	27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	1	1.4	28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	0	0.0	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	1	1.7	30	292.5 - 302.5	0	0.0
15	142.5 - 152.5	1	1.8	31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	0	0.0	32	312.5 - 322.5	0	0.0

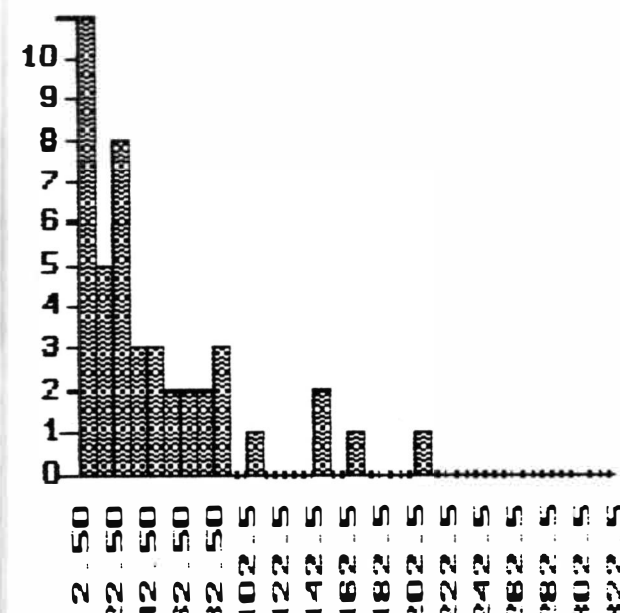
Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 26
Min. Part. Count 1

Areas of Particles (μm^2)HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	20	1.9	17	162.5 - 172.5	0	0.0
2	12.50 - 22.50	11	2.9	18	172.5 - 182.5	0	0.0
3	22.50 - 32.50	6	2.9	19	182.5 - 192.5	0	0.0
4	32.50 - 42.50	0	0.0	20	192.5 - 202.5	2	6.0
5	42.50 - 52.50	7	5.1	21	202.5 - 212.5	0	0.0
6	52.50 - 62.50	0	0.0	22	212.5 - 222.5	0	0.0
7	62.50 - 72.50	2	2.1	23	222.5 - 232.5	1	3.5
8	72.50 - 82.50	4	4.8	24	232.5 - 242.5	0	0.0
9	82.50 - 92.50	1	1.3	25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	1	1.5	26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	2	3.4	27	262.5 - 272.5	1	4.0
12	112.5 - 122.5	1	1.7	28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	2	3.9	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	1	2.1	30	292.5 - 302.5	0	0.0
15	142.5 - 152.5	1	2.3	31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	0	0.0	32	312.5 - 322.5	0	0.0

Number Of Bins 32
 Bin Size 10.00
 Bin Offset 2.50
 Max. Part. Count 20
 Min. Part. Count 1

BEFORE DEINKING ANALYSIS

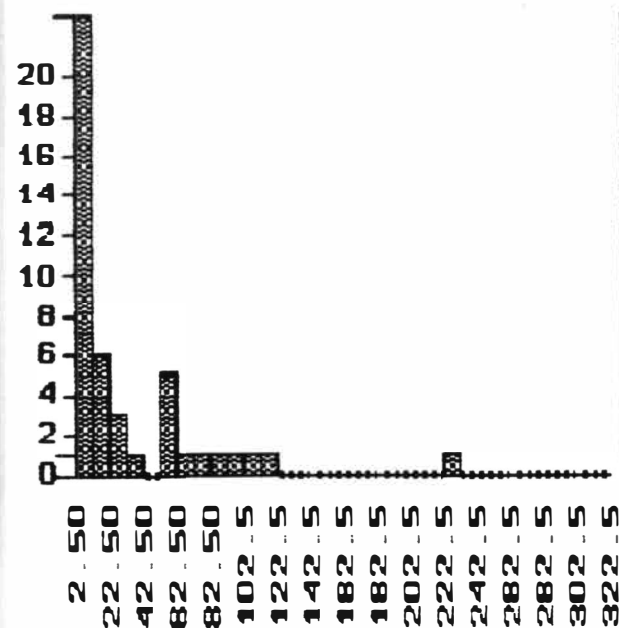
Areas of Particles (μm^2)HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	11	1.6	17	162.5 - 172.5	1	3.7
2	12.50 - 22.50	5	1.8	18	172.5 - 182.5	0	0.0
3	22.50 - 32.50	8	4.8	19	182.5 - 192.5	0	0.0
4	32.50 - 42.50	3	2.3	20	192.5 - 202.5	0	0.0
5	42.50 - 52.50	3	2.8	21	202.5 - 212.5	1	4.5
6	52.50 - 62.50	2	2.5	22	212.5 - 222.5	0	0.0
7	62.50 - 72.50	2	2.9	23	222.5 - 232.5	0	0.0
8	72.50 - 82.50	2	3.3	24	232.5 - 242.5	0	0.0
9	82.50 - 92.50	3	5.6	25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	0	0.0	26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	1	2.3	27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	0	0.0	28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	0	0.0	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	0	0.0	30	292.5 - 302.5	0	0.0
15	142.5 - 152.5	2	6.4	31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	0	0.0	32	312.5 - 322.5	0	0.0

Number Of Bins 32
 Bin Size 10.00
 Bin Offset 2.50
 Max. Part. Count 11
 Min. Part. Count 1

BEFORE DEINKING ANALYSIS

Paper ID : ISE25



Areas of Particles (μm^2)

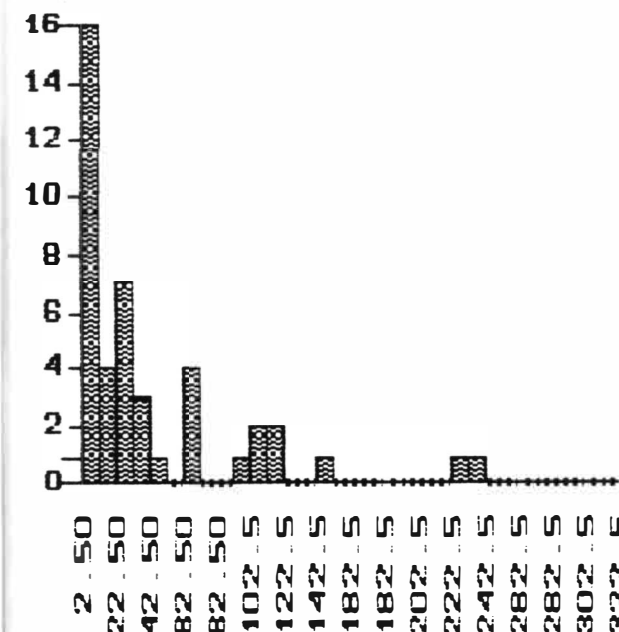
HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	233.9		17	162.5 - 172.5	0	0.0
2	12.50 - 22.50	62.5		18	172.5 - 182.5	0	0.0
3	22.50 - 32.50	31.7		19	182.5 - 192.5	0	0.0
4	32.50 - 42.50	10.8		20	192.5 - 202.5	0	0.0
5	42.50 - 52.50	00.0		21	202.5 - 212.5	0	0.0
6	52.50 - 62.50	56.9		22	212.5 - 222.5	0	0.0
7	62.50 - 72.50	11.5		23	222.5 - 232.5	15.4	
8	72.50 - 82.50	11.8		24	232.5 - 242.5	0	0.0
9	82.50 - 92.50	12.1		25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	12.3		26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	12.6		27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	12.7		28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	00.0		29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	00.0		30	292.5 - 302.5	0	0.0
15	142.5 - 152.5	00.0		31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	00.0		32	312.5 - 322.5	0	0.0

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 23
Min. Part. Count 1

BEFORE DEINKING ANALYSIS

Paper ID : ISE26

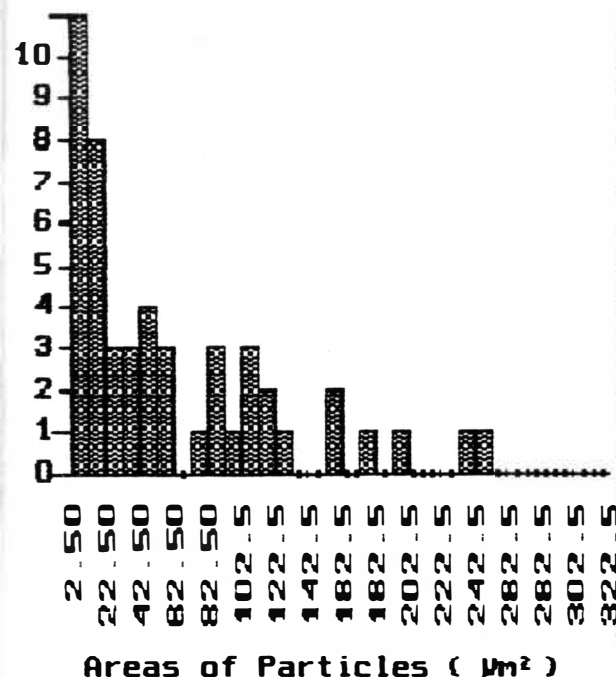


Areas of Particles (μm^2)

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	161.1		17	162.5 - 172.5	0	0.0
2	12.50 - 22.50	40.6		18	172.5 - 182.5	0	0.0
3	22.50 - 32.50	72.2		19	182.5 - 192.5	0	0.0
4	32.50 - 42.50	31.3		20	192.5 - 202.5	0	0.0
5	42.50 - 52.50	10.5		21	202.5 - 212.5	0	0.0
6	52.50 - 62.50	00.0		22	212.5 - 222.5	0	0.0
7	62.50 - 72.50	43.0		23	222.5 - 232.5	12.4	
8	72.50 - 82.50	00.0		24	232.5 - 242.5	12.5	
9	82.50 - 92.50	00.0		25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	11.0		26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	22.3		27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	22.5		28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	00.0		29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	00.0		30	292.5 - 302.5	0	0.0
15	142.5 - 152.5	11.6		31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	00.0		32	312.5 - 322.5	0	0.0

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 16
Min. Part. Count 1

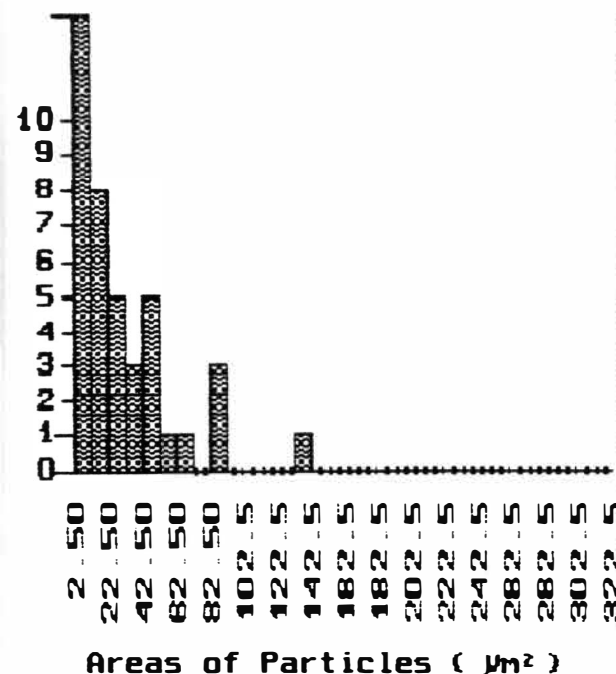


HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	11	1.4	17	162.5 - 172.5	0	0.0
2	12.50 - 22.50	8	2.4	18	172.5 - 182.5	1	3.2
3	22.50 - 32.50	3	1.3	19	182.5 - 192.5	0	0.0
4	32.50 - 42.50	3	2.0	20	192.5 - 202.5	1	3.6
5	42.50 - 52.50	4	3.5	21	202.5 - 212.5	0	0.0
6	52.50 - 62.50	3	3.0	22	212.5 - 222.5	0	0.0
7	62.50 - 72.50	0	0.0	23	222.5 - 232.5	0	0.0
8	72.50 - 82.50	1	1.3	24	232.5 - 242.5	1	4.3
9	82.50 - 92.50	3	4.8	25	242.5 - 252.5	1	4.4
10	92.50 - 102.5	1	1.7	26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	3	5.9	27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	2	4.2	28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	1	2.3	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	0	0.0	30	292.5 - 302.5	0	0.0
15	142.5 - 152.5	0	0.0	31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	2	5.8	32	312.5 - 322.5	0	0.0

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 11
Min. Part. Count 1

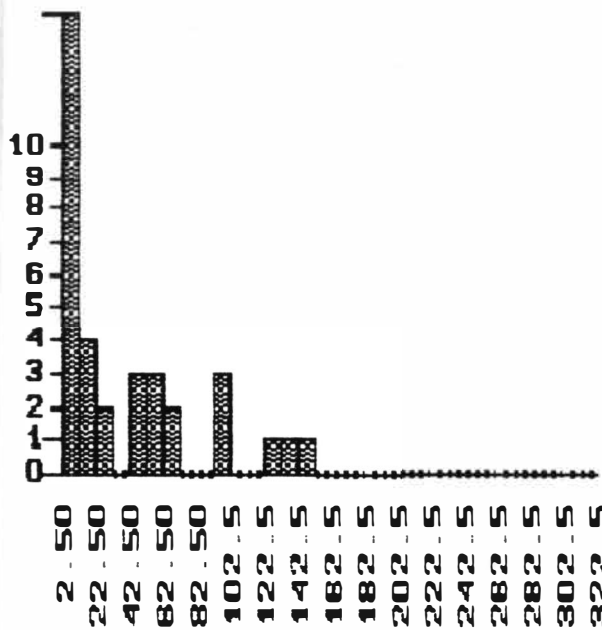
BEFORE DEINKING ANALYSIS



HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	13	4.5	17	162.5 - 172.5	0	0.0
2	12.50 - 22.50	8	10.0	18	172.5 - 182.5	0	0.0
3	22.50 - 32.50	5	11.0	19	182.5 - 192.5	0	0.0
4	32.50 - 42.50	3	9.6	20	192.5 - 202.5	0	0.0
5	42.50 - 52.50	5	19.0	21	202.5 - 212.5	0	0.0
6	52.50 - 62.50	1	4.8	22	212.5 - 222.5	0	0.0
7	62.50 - 72.50	1	3.3	23	222.5 - 232.5	0	0.0
8	72.50 - 82.50	0	0.0	24	232.5 - 242.5	0	0.0
9	82.50 - 92.50	3	22.0	25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	0	0.0	26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	0	0.0	27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	0	0.0	28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	0	0.0	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	1	11.0	30	292.5 - 302.5	0	0.0
15	142.5 - 152.5	0	0.0	31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	0	0.0	32	312.5 - 322.5	0	0.0

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 13
Min. Part. Count 1



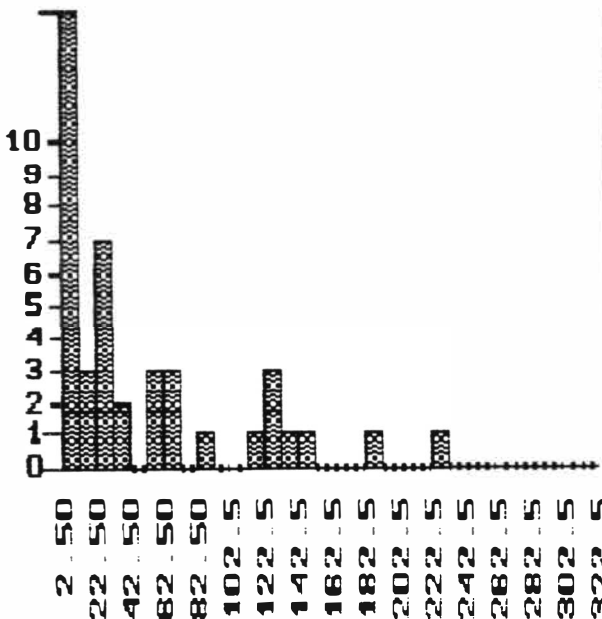
Areas of Particles (μm^2)

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	140.6		17	162.5 - 172.5	00.0	
2	12.50 - 22.50	40.5		18	172.5 - 182.5	00.0	
3	22.50 - 32.50	20.3		19	182.5 - 192.5	00.0	
4	32.50 - 42.50	00.0		20	192.5 - 202.5	00.0	
5	42.50 - 52.50	31.0		21	202.5 - 212.5	00.0	
6	52.50 - 62.50	31.2		22	212.5 - 222.5	00.0	
7	62.50 - 72.50	20.9		23	222.5 - 232.5	00.0	
8	72.50 - 82.50	00.0		24	232.5 - 242.5	00.0	
9	82.50 - 92.50	00.0		25	242.5 - 252.5	00.0	
10	92.50 - 102.5	32.1		26	252.5 - 262.5	00.0	
11	102.5 - 112.5	00.0		27	262.5 - 272.5	00.0	
12	112.5 - 122.5	00.0		28	272.5 - 282.5	00.0	
13	122.5 - 132.5	10.9		29	282.5 - 292.5	00.0	
14	132.5 - 142.5	11.0		30	292.5 - 302.5	00.0	
15	142.5 - 152.5	11.0		31	302.5 - 312.5	00.0	
16	152.5 - 162.5	00.0		32	312.5 - 322.5	00.0	

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 14
Min. Part. Count 1

BEFORE DEINKING ANALYSIS

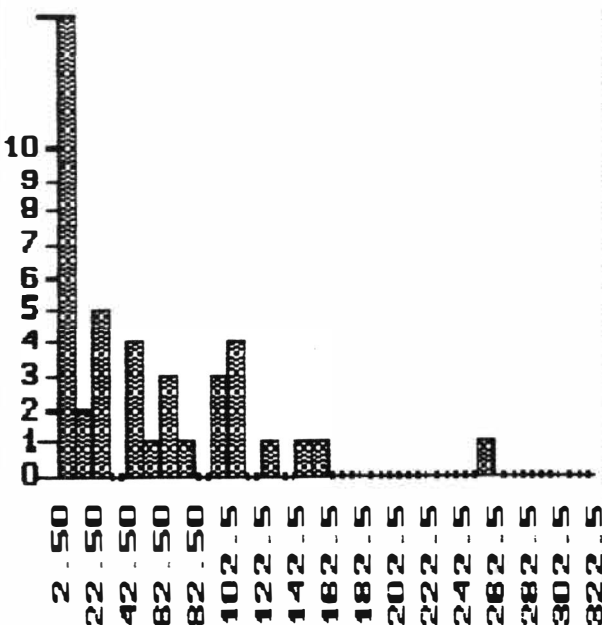


Areas of Particles (μm^2)

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	140.4		17	162.5 - 172.5	00.0	
2	12.50 - 22.50	30.1		18	172.5 - 182.5	00.0	
3	22.50 - 32.50	70.6		19	182.5 - 192.5	10.6	
4	32.50 - 42.50	20.2		20	192.5 - 202.5	00.0	
5	42.50 - 52.50	00.0		21	202.5 - 212.5	00.0	
6	52.50 - 62.50	30.6		22	212.5 - 222.5	00.0	
7	62.50 - 72.50	30.6		23	222.5 - 232.5	10.7	
8	72.50 - 82.50	00.0		24	232.5 - 242.5	00.0	
9	82.50 - 92.50	10.2		25	242.5 - 252.5	00.0	
10	92.50 - 102.5	00.0		26	252.5 - 262.5	00.0	
11	102.5 - 112.5	00.0		27	262.5 - 272.5	00.0	
12	112.5 - 122.5	10.4		28	272.5 - 282.5	00.0	
13	122.5 - 132.5	31.3		29	282.5 - 292.5	00.0	
14	132.5 - 142.5	10.4		30	292.5 - 302.5	00.0	
15	142.5 - 152.5	10.5		31	302.5 - 312.5	00.0	
16	152.5 - 162.5	00.0		32	312.5 - 322.5	00.0	

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 14
Min. Part. Count 1



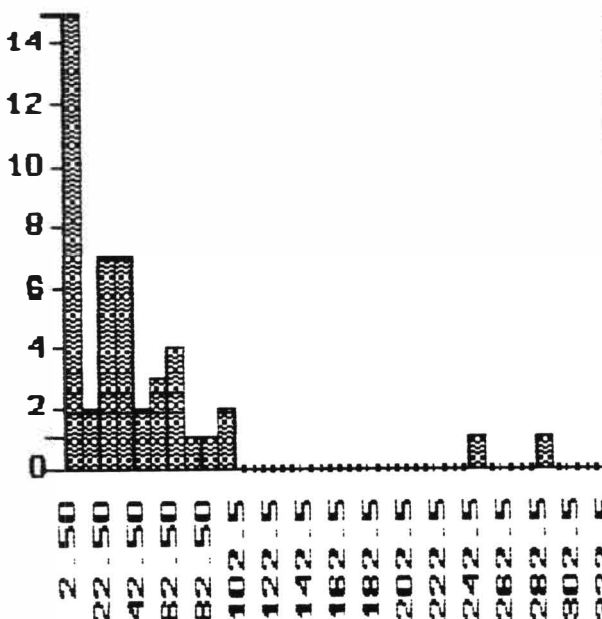
Areas of Particles (μm^2)

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	140.5		17	162.5 - 172.5	00.0	
2	12.50 - 22.50	20.2		18	172.5 - 182.5	00.0	
3	22.50 - 32.50	50.7		19	182.5 - 192.5	00.0	
4	32.50 - 42.50	00.0		20	192.5 - 202.5	00.0	
5	42.50 - 52.50	41.0		21	202.5 - 212.5	00.0	
6	52.50 - 62.50	10.3		22	212.5 - 222.5	00.0	
7	62.50 - 72.50	31.1		23	222.5 - 232.5	00.0	
8	72.50 - 82.50	10.4		24	232.5 - 242.5	00.0	
9	82.50 - 92.50	00.0		25	242.5 - 252.5	00.0	
10	92.50 - 102.5	31.6		26	252.5 - 262.5	11.4	
11	102.5 - 112.5	42.4		27	262.5 - 272.5	00.0	
12	112.5 - 122.5	00.0		28	272.5 - 282.5	00.0	
13	122.5 - 132.5	10.7		29	282.5 - 292.5	00.0	
14	132.5 - 142.5	00.0		30	292.5 - 302.5	00.0	
15	142.5 - 152.5	10.8		31	302.5 - 312.5	00.0	
16	152.5 - 162.5	10.8		32	312.5 - 322.5	00.0	

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 14
Min. Part. Count 1

BEFORE DEINKING ANALYSIS



Areas of Particles (μm^2)

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	150.3		17	162.5 - 172.5	00.0	
2	12.50 - 22.50	20.1		18	172.5 - 182.5	00.0	
3	22.50 - 32.50	70.8		19	182.5 - 192.5	00.0	
4	32.50 - 42.50	71.1		20	192.5 - 202.5	00.0	
5	42.50 - 52.50	20.4		21	202.5 - 212.5	00.0	
6	52.50 - 62.50	30.8		22	212.5 - 222.5	00.0	
7	62.50 - 72.50	41.2		23	222.5 - 232.5	00.0	
8	72.50 - 82.50	10.3		24	232.5 - 242.5	00.0	
9	82.50 - 92.50	10.4		25	242.5 - 252.5	11.1	
10	92.50 - 102.5	20.9		26	252.5 - 262.5	00.0	
11	102.5 - 112.5	00.0		27	262.5 - 272.5	00.0	
12	112.5 - 122.5	00.0		28	272.5 - 282.5	00.0	
13	122.5 - 132.5	00.0		29	282.5 - 292.5	11.3	
14	132.5 - 142.5	00.0		30	292.5 - 302.5	00.0	
15	142.5 - 152.5	00.0		31	302.5 - 312.5	00.0	
16	152.5 - 162.5	00.0		32	312.5 - 322.5	00.0	

Number Of Bins 32
Bin Size 10.00
Bin Offset 2.50
Max. Part. Count 15
Min. Part. Count 1

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : IM1X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	27.43
3) Median (μm^2)	40.00
4) Mode (μm^2)	42.10
5) Number Of Particles	18
6) Total Areas (μm^2)	4.9374E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	16.19

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : IM1X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	13.59
3) Median (μm^2)	5.00
4) Mode (μm^2)	2.10
5) Number Of Particles	34
6) Total Areas (μm^2)	4.6216E+ 2
7) Maximum Area detected (μm^2)	40.19
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	11.86

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : IM2X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	21.82
3) Median (μm^2)	11.20
4) Mode (μm^2)	8.50
5) Number Of Particles	10
6) Total Areas (μm^2)	2.1816E+ 2
7) Maximum Area detected (μm^2)	40.19
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	12.66

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : IM2X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	14.03
3) Median (μm^2)	5.20
4) Mode (μm^2)	2.10
5) Number Of Particles	18
6) Total Areas (μm^2)	2.5261E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	11.11

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : IM3X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	17.86
3) Median (μm^2)	22.13
4) Mode (μm^2)	22.90
5) Number Of Particles	9
6) Total Areas (μm^2)	1.6075E+ 2
7) Maximum Area detected (μm^2)	34.45
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	9.55

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : IM3X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	22.96
3) Median (μm^2)	20.40
4) Mode (μm^2)	19.70
5) Number Of Particles	11
6) Total Areas (μm^2)	2.5261E+ 2
7) Maximum Area detected (μm^2)	45.93
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	13.01

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : IM4X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	18.48
3) Median (μm^2)	4.16
4) Mode (μm^2)	2.10
5) Number Of Particles	16
6) Total Areas (μm^2)	2.9567E+ 2
7) Maximum Area detected (μm^2)	37.32
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	13.35

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : IM4X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	24.11
3) Median (μm^2)	8.00
4) Mode (μm^2)	5.30
5) Number Of Particles	10
6) Total Areas (μm^2)	2.4113E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	17.23

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : IM5X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	17.03
3) Median (μm^2)	5.03
4) Mode (μm^2)	2.10
5) Number Of Particles	30
6) Total Areas (μm^2)	5.1096E+ 2
7) Maximum Area detected (μm^2)	45.93
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	12.77

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : IM5X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	22.50
3) Median (μm^2)	9.12
4) Mode (μm^2)	5.30
5) Number Of Particles	31
6) Total Areas (μm^2)	6.9755E+ 2
7) Maximum Area detected (μm^2)	48.80
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	13.54

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : IM6X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	14.64
3) Median (μm^2)	8.32
4) Mode (μm^2)	5.30
5) Number Of Particles	30
6) Total Areas (μm^2)	4.3920E+ 2
7) Maximum Area detected (μm^2)	45.93
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	11.08

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : IM6X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	12.87
3) Median (μm^2)	4.36
4) Mode (μm^2)	2.10
5) Number Of Particles	31
6) Total Areas (μm^2)	3.9901E+ 2
7) Maximum Area detected (μm^2)	45.93
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	11.69

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : IM7X1

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	14.60
3) Median (μm^2)	5.69
4) Mode (μm^2)	2.10
5) Number Of Particles	46
6) Total Areas (μm^2)	6.7171E+ 2
7) Maximum Area detected (μm^2)	43.06
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	12.03

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : IM7X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	15.16
3) Median (μm^2)	4.80
4) Mode (μm^2)	2.10
5) Number Of Particles	32
6) Total Areas (μm^2)	4.8513E+ 2
7) Maximum Area detected (μm^2)	45.93
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	12.37

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : IM8X1

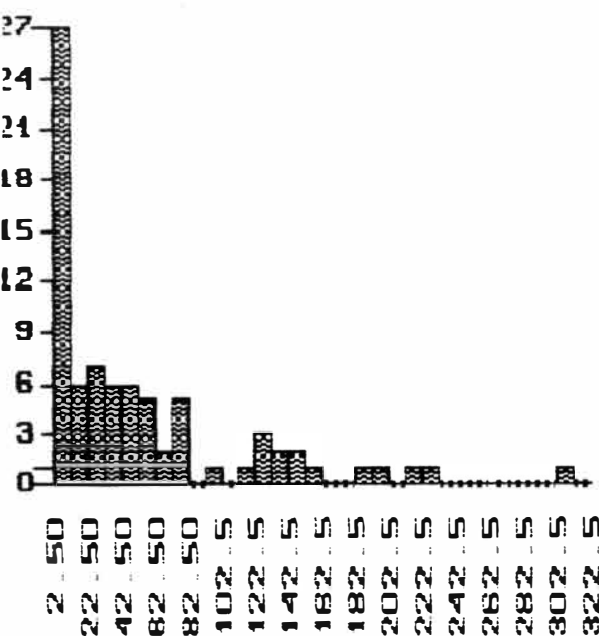
1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	16.65
3) Median (μm^2)	4.71
4) Mode (μm^2)	2.10
5) Number Of Particles	35
6) Total Areas (μm^2)	5.8272E+ 2
7) Maximum Area detected (μm^2)	45.93
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	13.58

TABLE 2 : DISPERSION HISTOGRAM OF PARTICLES
Based on No. of Before DeInking Particles
Paper ID : IM8X2

1) Nature of Dispersion	Positively Skewed
2) Arithmetic Mean (μm^2)	17.43
3) Median (μm^2)	14.40
4) Mode (μm^2)	13.09
5) Number Of Particles	28
6) Total Areas (μm^2)	4.8800E+ 2
7) Maximum Area detected (μm^2)	40.19
8) Minimum Area detected (μm^2)	2.87
9) Standard Deviation	9.76

BEFORE DEINKING ANALYSIS

Paper ID : IM1



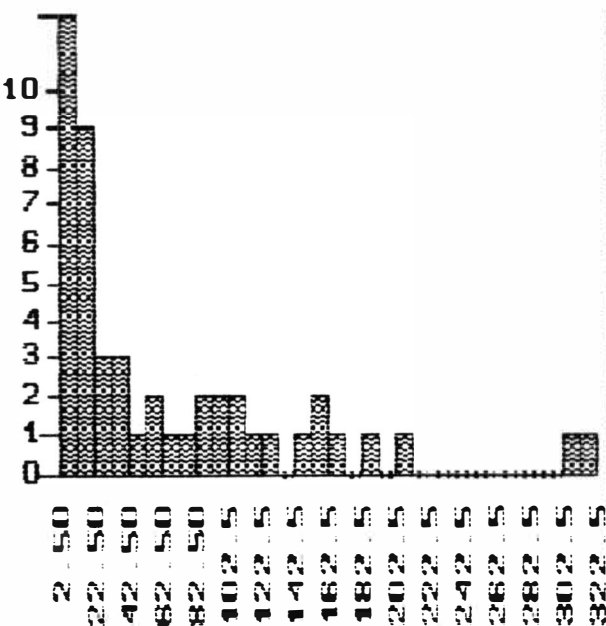
HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	27	0.3	17	162.5 - 172.5	0	0.0
2	12.50 - 22.50	6	0.2	18	172.5 - 182.5	0	0.0
3	22.50 - 32.50	7	0.3	19	182.5 - 192.5	1	0.3
4	32.50 - 42.50	6	0.4	20	192.5 - 202.5	1	0.3
5	42.50 - 52.50	6	0.5	21	202.5 - 212.5	0	0.0
6	52.50 - 62.50	5	0.5	22	212.5 - 222.5	1	0.4
7	62.50 - 72.50	2	0.2	23	222.5 - 232.5	1	0.4
8	72.50 - 82.50	5	0.7	24	232.5 - 242.5	0	0.0
9	82.50 - 92.50	0	0.0	25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	1	0.1	26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	0	0.0	27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	1	0.2	28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	3	0.7	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	2	0.5	30	292.5 - 302.5	0	0.0
15	142.5 - 152.5	2	0.5	31	302.5 - 312.5	1	0.5
16	152.5 - 162.5	1	0.3	32	312.5 - 322.5	0	0.0

Number Of Bins	32
Bin Size	10.00
Bin Offset	2.50
Max. Part. Count	27
Min. Part. Count	1

BEFORE DEINKING ANALYSIS

Paper ID : IM2



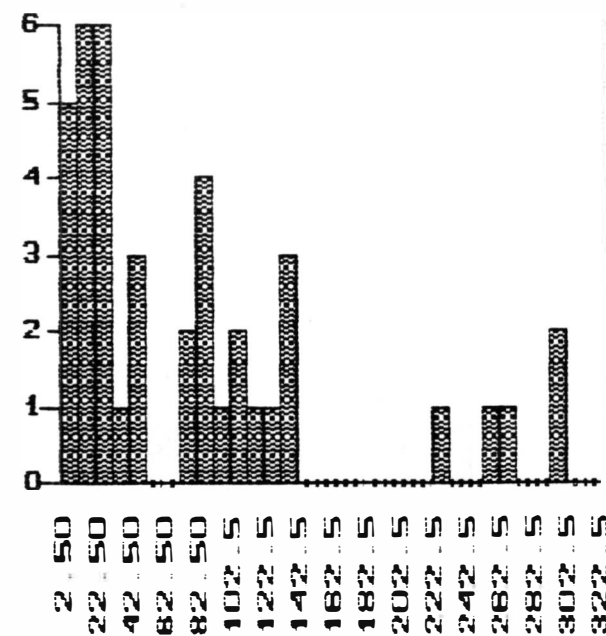
HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	12	0.5	17	162.5 - 172.5	1	1.2
2	12.50 - 22.50	9	1.1	18	172.5 - 182.5	0	0.0
3	22.50 - 32.50	3	0.6	19	182.5 - 192.5	1	1.3
4	32.50 - 42.50	3	0.8	20	192.5 - 202.5	0	0.0
5	42.50 - 52.50	1	0.3	21	202.5 - 212.5	1	1.5
6	52.50 - 62.50	2	0.8	22	212.5 - 222.5	0	0.0
7	62.50 - 72.50	1	0.5	23	222.5 - 232.5	0	0.0
8	72.50 - 82.50	1	0.5	24	232.5 - 242.5	0	0.0
9	82.50 - 92.50	2	1.3	25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	2	1.4	26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	2	1.6	27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	1	0.9	28	272.5 - 282.5	0	0.0
13	122.5 - 132.5	1	0.9	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	0	0.0	30	292.5 - 302.5	0	0.0
15	142.5 - 152.5	1	1.1	31	302.5 - 312.5	1	2.2
16	152.5 - 162.5	2	2.3	32	312.5 - 322.5	1	2.3

Number Of Bins	32
Bin Size	10.00
Bin Offset	2.50
Max. Part. Count	12
Min. Part. Count	1

BEFORE DEINKING ANALYSIS

Paper ID : IM3



HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	50.1		17	162.5 - 172.5	00.0	
2	12.50 - 22.50	60.4		18	172.5 - 182.5	00.0	
3	22.50 - 32.50	60.6		19	182.5 - 192.5	00.0	
4	32.50 - 42.50	10.1		20	192.5 - 202.5	00.0	
5	42.50 - 52.50	30.5		21	202.5 - 212.5	00.0	
6	52.50 - 62.50	00.0		22	212.5 - 222.5	00.0	
7	62.50 - 72.50	00.0		23	222.5 - 232.5	10.9	
8	72.50 - 82.50	20.6		24	232.5 - 242.5	00.0	
9	82.50 - 92.50	41.3		25	242.5 - 252.5	00.0	
10	92.50 - 102.5	10.4		26	252.5 - 262.5	11.0	
11	102.5 - 112.5	20.8		27	262.5 - 272.5	11.0	
12	112.5 - 122.5	10.4		28	272.5 - 282.5	00.0	
13	122.5 - 132.5	10.5		29	282.5 - 292.5	00.0	
14	132.5 - 142.5	31.6		30	292.5 - 302.5	22.3	
15	142.5 - 152.5	00.0		31	302.5 - 312.5	00.0	
16	152.5 - 162.5	00.0		32	312.5 - 322.5	00.0	

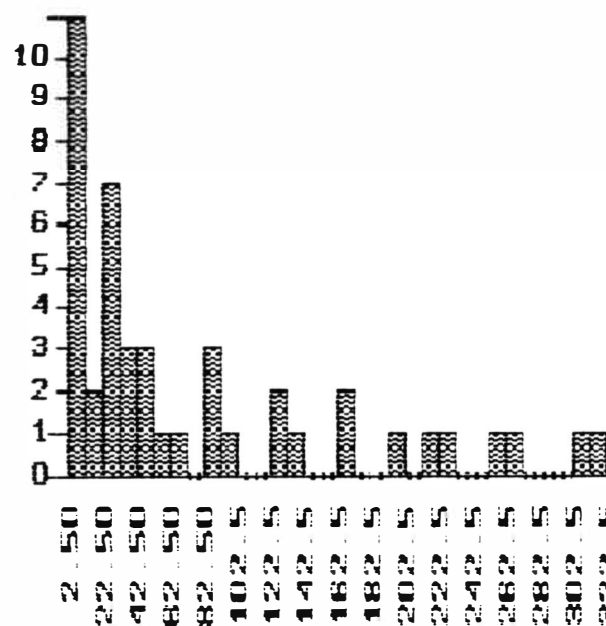
Areas of Particles (μm^2)

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

Number Of Bins	32
Bin Size	10.00
Bin Offset	2.50
Max. Part. Count	6
Min. Part. Count	1

BEFORE DEINKING ANALYSIS

Paper ID : IM4



HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	110.1		17	162.5 - 172.5	20.7	
2	12.50 - 22.50	20.1		18	172.5 - 182.5	00.0	
3	22.50 - 32.50	70.4		19	182.5 - 192.5	00.0	
4	32.50 - 42.50	30.2		20	192.5 - 202.5	10.4	
5	42.50 - 52.50	30.3		21	202.5 - 212.5	00.0	
6	52.50 - 62.50	10.1		22	212.5 - 222.5	10.5	
7	62.50 - 72.50	10.1		23	222.5 - 232.5	10.5	
8	72.50 - 82.50	00.0		24	232.5 - 242.5	00.0	
9	82.50 - 92.50	30.6		25	242.5 - 252.5	00.0	
10	92.50 - 102.5	10.2		26	252.5 - 262.5	10.6	
11	102.5 - 112.5	00.0		27	262.5 - 272.5	10.6	
12	112.5 - 122.5	00.0		28	272.5 - 282.5	00.0	
13	122.5 - 132.5	20.6		29	282.5 - 292.5	00.0	
14	132.5 - 142.5	10.3		30	292.5 - 302.5	00.0	
15	142.5 - 152.5	00.0		31	302.5 - 312.5	10.7	
16	152.5 - 162.5	00.0		32	312.5 - 322.5	10.7	

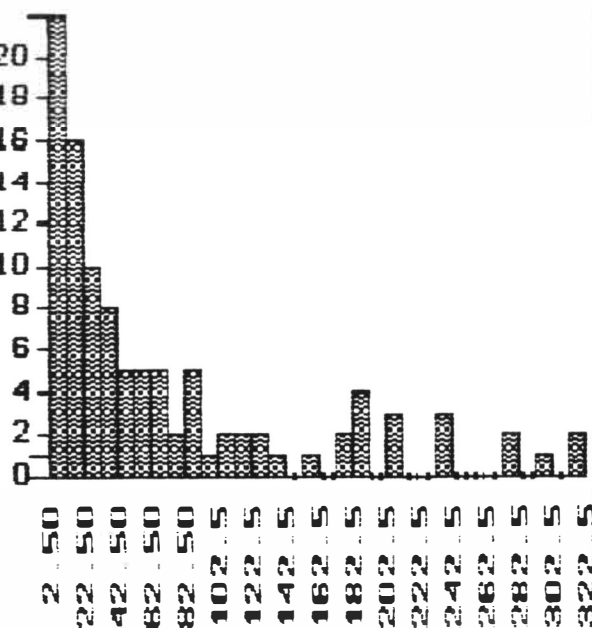
Areas of Particles (μm^2)

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

Number Of Bins	32
Bin Size	10.00
Bin Offset	2.50
Max. Part. Count	11
Min. Part. Count	1

BEFORE DEINKING ANALYSIS

Paper ID : IMG



Areas of Particles (μm^2)

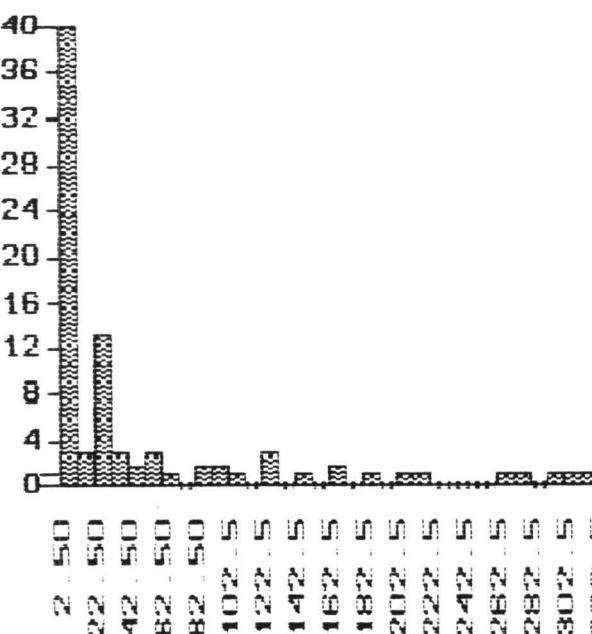
HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	22	0.3	17	162.5 - 172.5	0	0.0
2	12.50 - 22.50	16	0.6	18	172.5 - 182.5	2	0.8
3	22.50 - 32.50	10	0.6	19	182.5 - 192.5	4	1.8
4	32.50 - 42.50	8	0.7	20	192.5 - 202.5	0	0.0
5	42.50 - 52.50	5	0.5	21	202.5 - 212.5	3	1.4
6	52.50 - 62.50	5	0.6	22	212.5 - 222.5	0	0.0
7	62.50 - 72.50	5	0.7	23	222.5 - 232.5	0	0.0
8	72.50 - 82.50	2	0.3	24	232.5 - 242.5	3	1.6
9	82.50 - 92.50	5	1.0	25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	1	0.2	26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	2	0.5	27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	2	0.5	28	272.5 - 282.5	2	1.3
13	122.5 - 132.5	2	0.6	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	1	0.3	30	292.5 - 302.5	1	0.7
15	142.5 - 152.5	0	0.0	31	302.5 - 312.5	0	0.0
16	152.5 - 162.5	1	0.3	32	312.5 - 322.5	2	1.5

Number Of Bins	32
Bin Size	10.00
Bin Offset	2.50
Max. Part. Count	22
Min. Part. Count	1

BEFORE DEINKING ANALYSIS

Paper ID : IMG



Areas of Particles (μm^2)

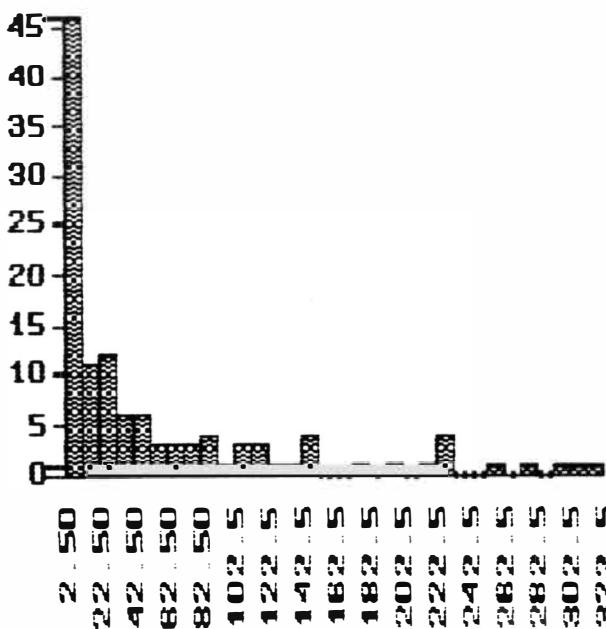
HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	40	0.3	17	162.5 - 172.5	2	0.4
2	12.50 - 22.50	3	0.0	18	172.5 - 182.5	0	0.0
3	22.50 - 32.50	13	0.4	19	182.5 - 192.5	1	0.2
4	32.50 - 42.50	3	0.1	20	192.5 - 202.5	0	0.0
5	42.50 - 52.50	2	0.1	21	202.5 - 212.5	1	0.2
6	52.50 - 62.50	3	0.2	22	212.5 - 222.5	1	0.2
7	62.50 - 72.50	1	0.0	23	222.5 - 232.5	0	0.0
8	72.50 - 82.50	0	0.0	24	232.5 - 242.5	0	0.0
9	82.50 - 92.50	2	0.2	25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	2	0.2	26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	1	0.1	27	262.5 - 272.5	1	0.3
12	112.5 - 122.5	0	0.0	28	272.5 - 282.5	1	0.3
13	122.5 - 132.5	3	0.4	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	0	0.0	30	292.5 - 302.5	1	0.3
15	142.5 - 152.5	1	0.1	31	302.5 - 312.5	1	0.3
16	152.5 - 162.5	0	0.0	32	312.5 - 322.5	1	0.3

Number Of Bins	32
Bin Size	10.00
Bin Offset	2.50
Max. Part. Count	40
Min. Part. Count	1

BEFORE DEINKING ANALYSIS

Paper ID : IM7



HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	45	0.8	17	162.5 - 172.5	0	0.0
2	12.50 - 22.50	11	0.6	18	172.5 - 182.5	1	0.5
3	22.50 - 32.50	12	1.0	19	182.5 - 192.5	0	0.0
4	32.50 - 42.50	6	0.6	20	192.5 - 202.5	1	0.6
5	42.50 - 52.50	6	0.8	21	202.5 - 212.5	0	0.0
6	52.50 - 62.50	3	0.5	22	212.5 - 222.5	1	0.6
7	62.50 - 72.50	3	0.6	23	222.5 - 232.5	4	2.7
8	72.50 - 82.50	3	0.7	24	232.5 - 242.5	0	0.0
9	82.50 - 92.50	4	1.0	25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	1	0.3	26	252.5 - 262.5	1	0.7
11	102.5 - 112.5	3	0.9	27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	3	1.0	28	272.5 - 282.5	1	0.8
13	122.5 - 132.5	1	0.3	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	1	0.4	30	292.5 - 302.5	1	0.9
15	142.5 - 152.5	4	1.8	31	302.5 - 312.5	1	0.9
16	152.5 - 162.5	0	0.0	32	312.5 - 322.5	1	0.9

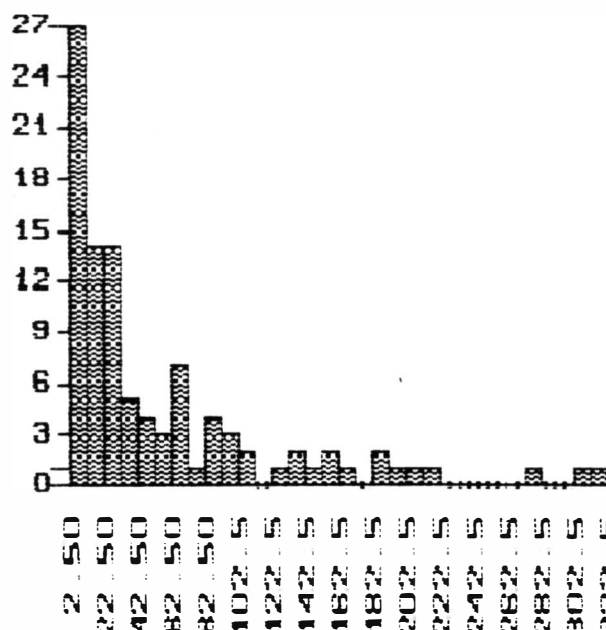
Areas of Particles (μm^2)

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

Number Of Bins	32
Bin Size	10.00
Bin Offset	2.50
Max. Part. Count	46
Min. Part. Count	1

BEFORE DEINKING ANALYSIS

Paper ID : IM8



HISTOGRAM TABLE							
Bin	Area Range	Cnt	%A	Bin	Area Range	Cnt	%A
1	2.50 - 12.50	27	0.5	17	162.5 - 172.5	1	0.5
2	12.50 - 22.50	14	0.6	18	172.5 - 182.5	0	0.0
3	22.50 - 32.50	14	1.1	19	182.5 - 192.5	2	1.1
4	32.50 - 42.50	5	0.5	20	192.5 - 202.5	1	0.8
5	42.50 - 52.50	4	0.5	21	202.5 - 212.5	1	0.8
6	52.50 - 62.50	3	0.5	22	212.5 - 222.5	1	0.8
7	62.50 - 72.50	7	1.4	23	222.5 - 232.5	0	0.0
8	72.50 - 82.50	1	0.2	24	232.5 - 242.5	0	0.0
9	82.50 - 92.50	4	1.0	25	242.5 - 252.5	0	0.0
10	92.50 - 102.5	3	0.8	26	252.5 - 262.5	0	0.0
11	102.5 - 112.5	2	0.6	27	262.5 - 272.5	0	0.0
12	112.5 - 122.5	0	0.0	28	272.5 - 282.5	1	1.0
13	122.5 - 132.5	1	0.4	29	282.5 - 292.5	0	0.0
14	132.5 - 142.5	2	0.8	30	292.5 - 302.5	0	0.0
15	142.5 - 152.5	1	0.4	31	302.5 - 312.5	1	1.0
16	152.5 - 162.5	2	0.9	32	312.5 - 322.5	1	1.0

Areas of Particles (μm^2)

HISTOGRAM of BEFORE DEINKING
(Count vs. Areas)

Number Of Bins	32
Bin Size	10.00
Bin Offset	2.50
Max. Part. Count	27
Min. Part. Count	1

APPENDIX C

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B 77.72
B 77.35
B 78.16
B 78.78
B 78.33
B 79.06
B 79.12
B 78.76
B 78.65
B 78.64

AVG 78.46
STDV 0.54

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B 77.99
B 77.43
B 76.56
B 77.58
B 76.67
B 77.57
B 78.18
B 78.04
B 76.87
B 77.74

AVG 77.46
STDV 0.55

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B 79.42
B 79.80
B 79.14
B 79.25
B 79.63
B 78.70
B 79.98
B 79.47
B 80.01
B 79.27

AVG 79.47
STDV 0.38

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B 68.88
B 67.72
B 69.04
B 69.32
B 68.39
B 68.11
B 70.18
B 68.42
B 69.68
B 69.78

AVG 68.95
STDV 0.75

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B 74.66
B 73.89
B 74.27
B 74.11
B 74.37
B 74.01
B 74.08
B 74.29
B 74.22
B 74.46

AVG 74.24
STDV 0.21

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B 77.22
B 76.91
B 76.78
B 76.29
B 76.39
B 77.35
B 77.68
B 77.24
B 77.40
B 77.33

AVG 77.06
STDV 0.43

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B 71.66
B 72.88
B 73.15
B 72.17
B 72.41
B 72.86
B 73.10
B 72.68
B 72.98
B 72.30

AVG 72.62
STDV 0.45

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B 71.42
B 71.33
B 69.56
B 71.52
B 69.99
B 71.05
B 71.42
B 71.31
B 71.59
B 70.81

AVG 71.00
STDV 0.65

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B 75.17
B 74.96
B 74.39
B 75.14
B 74.34
B 74.21
B 75.71
B 74.07
B 75.46
B 74.89

AVG 74.83
STDV 0.52

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B 75.39
B 74.08
B 75.04
B 75.02
B 74.72
B 75.38
B 74.76
B 74.89
B 75.67
B 75.22

AVG 75.02
STDV 0.42

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B 78.39
B 80.01
B 79.55
B 78.92
B 79.64
B 78.38
B 79.49
B 79.30
B 79.41
B 78.46

AVG 79.16
STDV 0.55

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B 72.79
B 73.61
B 73.12
B 71.90
B 74.29
B 71.72
B 72.59
B 72.69
B 72.25
B 71.95

AVG 72.69
STDV 0.76

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B 76.18
B 75.70
B 75.96
B 75.60
B 76.20
B 76.39
B 77.25
B 75.61
B 76.06
B 76.26

AVG 76.12
STDV 0.45

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B 78.13
B 78.26
B 78.27
B 78.13
B 78.38
B 79.22
B 78.71
B 78.33
B 78.42
B 78.49

AVG 78.43
STDV 0.30

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B 81.55
B 81.55
B 80.87
B 80.88
B 80.48
B 82.05
B 81.11
B 81.33
B 81.09
B 80.76

AVG 81.17
STDV 0.43

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B 73.23
B 73.95
B 73.45
B 73.78
B 73.97
B 73.07
B 74.56
B 74.08
B 73.51
B 74.13

AVG 73.77
STDV 0.43

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B 75.76
B 75.80
B 75.56
B 75.39
B 76.31
B 75.91
B 75.59
B 76.13
B 75.69
B 75.79

AVG 75.79
STDV 0.25

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B 82.55
B 81.22
B 82.41
B 81.57
B 82.47
B 83.60
B 82.54
B 81.55
B 82.09
B 81.54

AVG 82.15
STDV 0.67

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

19
B 81.65
B 81.49
B 81.85
B 81.86
B 81.51
B 81.85
B 81.94
B 83.26
B 82.24
B 81.99

AVG 81.96
STDV 0.48

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

22
B 77.71
B 76.72
B 78.61
B 77.66
B 77.36
B 79.61
B 77.62
B 77.37
B 77.57
B 78.26

AVG 77.85
STDV 0.76

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

25
B 78.09
B 77.68
B 77.64
B 76.87
B 77.59
B 79.09
B 78.03
B 78.19
B 78.07
B 77.65

AVG 77.89
STDV 0.54

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

20
B 76.43
B 76.13
B 76.09
B 75.79
B 76.23
B 76.21
B 76.48
B 76.10
B 75.99
B 76.96

AVG 76.24
STDV 0.30

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

23
B 79.75
B 80.13
B 78.59
B 79.20
B 80.85
B 79.59
B 80.02
B 80.12
B 78.17
B 80.65

AVG 79.71
STDV 0.80

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

26
B 77.19
B 77.83
B 77.70
B 78.23
B 77.94
B 77.79
B 77.43
B 78.68
B 78.62
B 77.48

AVG 77.89
STDV 0.46

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

21
B 76.39
B 76.72
B 74.52
B 75.38
B 75.75
B 76.03
B 75.83
B 76.00
B 75.67
B 76.64

AVG 75.90
STDV 0.61

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

24
B 77.32
B 77.74
B 79.01
B 78.20
B 78.62
B 78.07
B 78.41
B 77.90
B 78.26
B 78.15

AVG 78.17
STDV 0.46

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

27
B 79.97
B 78.63
B 80.51
B 78.92
B 79.79
B 81.40
B 80.47
B 80.39
B 80.61
B 79.79

AVG 80.05
STDV 0.77

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B	78.09
B	77.79
B	77.51
B	77.57
B	77.98
B	78.14
B	77.68
B	78.51
B	78.14
B	78.06

AVG	77.95
STDV	0.29

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B	81.13
B	81.10
B	81.71
B	81.01
B	81.40
B	80.54
B	80.46
B	80.77
B	81.26
B	80.75

AVG	81.01
STDV	0.37

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B	80.14
B	79.73
B	79.87
B	79.77
B	79.90
B	80.62
B	79.70
B	81.12
B	79.85
B	79.68

AVG	80.04
STDV	0.44

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B	78.60
B	79.32
B	78.50
B	79.18
B	78.81
B	78.27
B	78.98
B	78.53
B	78.85
B	77.81

AVG	78.68
STDV	0.42

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B	80.68
B	80.58
B	80.84
B	80.55
B	80.57
B	80.57
B	81.39
B	81.33
B	81.53
B	80.01

AVG	80.80
STDV	0.45

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B	75.64
B	75.44
B	74.46
B	74.75
B	75.69
B	75.75
B	76.87
B	76.35
B	76.30
B	77.21

AVG	75.84
STDV	0.81

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B	73.80
B	73.72
B	74.67
B	75.62
B	75.49
B	74.91
B	74.46
B	74.96
B	74.37
B	74.26

AVG	74.63
STDV	0.60

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B	76.48
B	77.55
B	76.65
B	75.04
B	76.82
B	75.27
B	76.62
B	76.07
B	76.71
B	76.17

AVG	76.34
STDV	0.70

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B	80.27
B	81.28
B	80.54
B	81.42
B	81.65
B	81.00
B	81.30
B	80.61
B	82.33
B	80.21

AVG	81.06
STDV	0.63

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B	74.96
B	75.38
B	75.01
B	75.01
B	75.62
B	73.91
B	75.00
B	74.54
B	74.95
B	74.17

AVG	74.85
STDV	0.49

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B	77.00
B	78.27
B	76.14
B	77.63
B	77.49
B	77.72
B	77.69
B	77.43
B	77.06
B	76.75

AVG	77.32
STDV	0.56

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B	79.01
B	79.07
B	78.18
B	78.53
B	79.03
B	79.26
B	79.81
B	79.83
B	79.46
B	77.54

AVG	78.97
STDV	0.68

AVERAGE READINGS
ENTER NUMBER 1-15 ?
10

LOAD SAMPLE
PRESS SCAN
OR
PRINT

B	73.16
B	74.13
B	74.21
B	73.45
B	73.88
B	73.89
B	74.70
B	73.87
B	74.25
B	73.74

AVG	73.93
STDV	0.41