



## REFERENCES

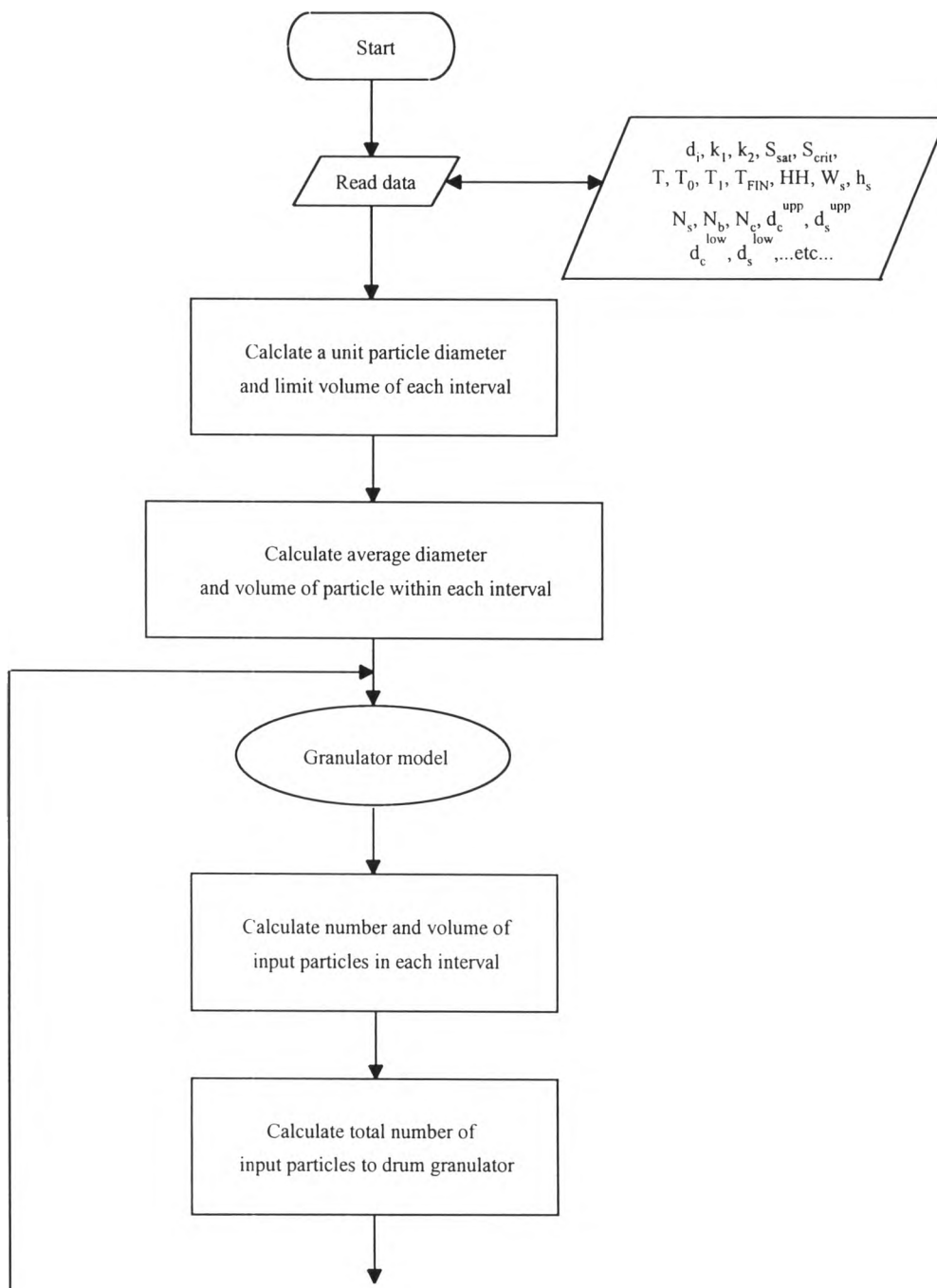
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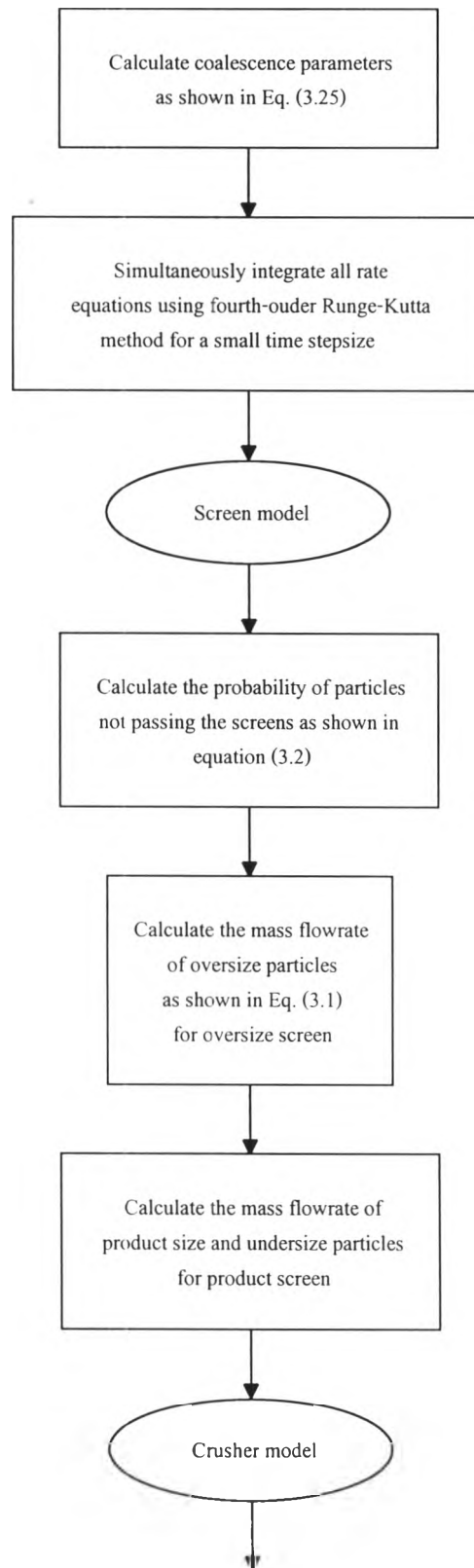
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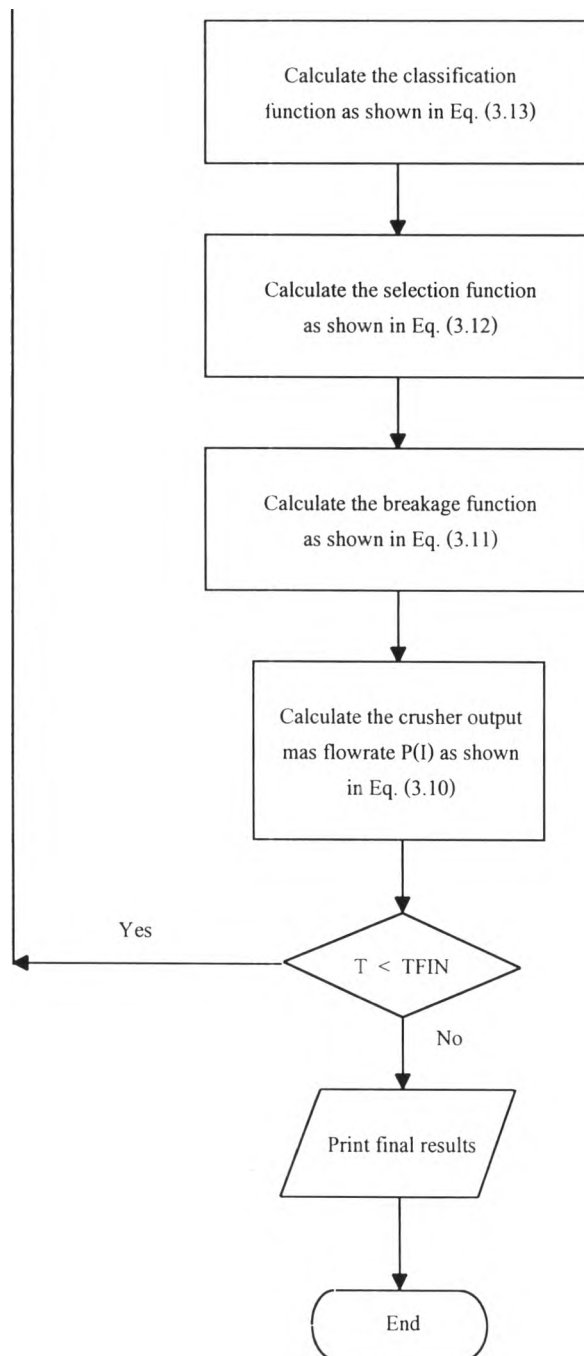
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APPENDIX I  
COMPUTER FLOWCHART







## APPENDIX II

Adetayo(1993) experimental data for Ammonium Sulphate (AS) at 4% moisture content

Sieve Size (mm)	Initial		5 min		15 min		25 min	
	Fraction	Cumulative	Fraction	Cumulative	Fraction	Cumulative	Fraction	Cumulative
0.198	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.249	0.0610	0.0610	0.0001	0.0001	0.0002	0.0002	0.0000	0.0000
0.314	0.0140	0.0750	0.0004	0.0005	0.0003	0.0005	0.0002	0.0002
0.396	0.0130	0.0880	0.0005	0.0010	0.0005	0.0010	0.0018	0.0020
0.499	0.0100	0.0980	0.0010	0.0020	0.0020	0.0030	0.0020	0.0040
0.629	0.0290	0.1270	0.0060	0.0080	0.0050	0.0080	0.0050	0.0090
0.792	0.0230	0.1500	0.0200	0.0280	0.0220	0.0300	0.0310	0.0400
0.998	0.0430	0.1930	0.0240	0.0520	0.0210	0.0510	0.0430	0.0830
1.258	0.0700	0.2630	0.0580	0.1100	0.0590	0.1100	0.0370	0.1200
1.585	0.0790	0.3420	0.0780	0.1880	0.0600	0.1700	0.0600	0.1800
1.997	0.1350	0.4770	0.1290	0.3170	0.1600	0.3300	0.1930	0.3730
2.516	0.1130	0.5900	0.1680	0.4850	0.1600	0.4900	0.1150	0.4880
3.170	0.1020	0.6920	0.1450	0.6300	0.1400	0.6300	0.1430	0.6310
3.995	0.1000	0.7920	0.1050	0.7350	0.1140	0.7440	0.1240	0.7550
5.033	0.0640	0.8560	0.0820	0.8170	0.0820	0.8260	0.0750	0.8300
6.342	0.0620	0.9180	0.0850	0.9020	0.0940	0.9200	0.0910	0.9210
7.991	0.0690	0.9870	0.0710	0.9730	0.0550	0.9750	0.0610	0.9820
10.068	0.0130	1.0000	0.0270	1.0000	0.0250	1.0000	0.0180	1.0000
12.686	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
15.985	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
20.141	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
25.377	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
31.975	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000



Adetayo(1993) experimental data for Ammonium Sulphate (AS) at 6% moisture content

Sieve Size (mm)	Initial		5 min		15 min		25 min	
	Fraction	Cumulative	Fraction	Cumulative	Fraction	Cumulative	Fraction	Cumulative
0.198	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.249	0.0610	0.0610	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.314	0.0140	0.0750	0.0002	0.0002	0.0001	0.0001	0.0000	0.0000
0.396	0.0130	0.0880	0.0001	0.0003	0.0001	0.0002	0.0000	0.0000
0.499	0.0100	0.0980	0.0001	0.0004	0.0002	0.0004	0.0001	0.0001
0.629	0.0290	0.1270	0.0000	0.0004	0.0000	0.0004	0.0003	0.0004
0.792	0.0230	0.1500	0.0001	0.0005	0.0001	0.0005	0.0006	0.0010
0.998	0.0430	0.1930	0.0055	0.0060	0.0075	0.0080	0.0050	0.0060
1.258	0.0700	0.2630	0.0210	0.0270	0.0170	0.0250	0.0270	0.0330
1.585	0.0790	0.3420	0.0630	0.0900	0.0550	0.0800	0.0670	0.1000
1.997	0.1350	0.4770	0.1000	0.1900	0.0930	0.1730	0.0910	0.1910
2.516	0.1130	0.5900	0.1700	0.3600	0.1520	0.3250	0.1690	0.3600
3.170	0.1020	0.6920	0.1750	0.5350	0.1950	0.5200	0.1800	0.5400
3.995	0.1000	0.7920	0.1380	0.6730	0.1480	0.6680	0.1410	0.6810
5.033	0.0640	0.8560	0.0770	0.7500	0.0820	0.7500	0.0890	0.7700
6.342	0.0620	0.9180	0.0950	0.8450	0.0920	0.8420	0.0900	0.8600
7.991	0.0690	0.9870	0.1000	0.9450	0.0860	0.9280	0.0960	0.9560
10.068	0.0130	1.0000	0.0350	0.9800	0.0520	0.9800	0.0240	0.9800
12.686	0.0000	1.0000	0.0200	1.0000	0.0200	1.0000	0.0200	1.0000
15.985	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
20.141	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
25.377	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
31.975	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000

Adetayo(1993) experimental data for Ammonium Sulphate (AS) at 8% moisture content

Sieve Size (mm)	Initial		5 min		15 min		25 min	
	Fraction	Cumulative	Fraction	Cumulative	Fraction	Cumulative	Fraction	Cumulative
0.198	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.249	0.0610	0.0610	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.314	0.0140	0.0750	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.396	0.0130	0.0880	0.0001	0.0001	0.0000	0.0001	0.0000	0.0001
0.499	0.0100	0.0980	0.0002	0.0002	0.0001	0.0002	0.0001	0.0002
0.629	0.0290	0.1270	0.0005	0.0007	0.0004	0.0006	0.0004	0.0006
0.792	0.0230	0.1500	0.0013	0.0020	0.0011	0.0016	0.0011	0.0016
0.998	0.0430	0.1930	0.0035	0.0055	0.0029	0.0045	0.0029	0.0045
1.258	0.0700	0.2630	0.0085	0.0141	0.0071	0.0116	0.0071	0.0116
1.585	0.0790	0.3420	0.0206	0.0347	0.0177	0.0293	0.0177	0.0293
1.997	0.1350	0.4770	0.0451	0.0798	0.0399	0.0692	0.0399	0.0692
2.516	0.1130	0.5900	0.0954	0.1752	0.0875	0.1566	0.0875	0.1566
3.170	0.1020	0.6920	0.1582	0.3333	0.1521	0.3088	0.1521	0.3088
3.995	0.1000	0.7920	0.1914	0.5247	0.1938	0.5026	0.1922	0.5010
5.033	0.0640	0.8560	0.1784	0.7031	0.1868	0.6894	0.1884	0.6894
6.342	0.0620	0.9180	0.1182	0.8213	0.1276	0.8170	0.1262	0.8156
7.991	0.0690	0.9870	0.0910	0.9123	0.1030	0.9200	0.0944	0.9100
10.068	0.0130	1.0000	0.0691	0.9815	0.0706	0.9906	0.0706	0.9806
12.686	0.0000	1.0000	0.0182	0.9997	0.0094	1.0000	0.0194	1.0000
15.985	0.0000	1.0000	0.0003	1.0000	0.0000	1.0000	0.0000	1.0000
20.141	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
25.377	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
31.975	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000

Adetayo(1993) experimental data for Monoammonium phosphate (MAP) at 4% moisture content

Sieve Size (mm)	Initial		5 min		15 min		25 min	
	Fraction	Cumulative	Fraction	Cumulative	Fraction	Cumulative	Fraction	Cumulative
0.198	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.249	0.0360	0.0360	0.0001	0.0001	0.0004	0.0004	0.0000	0.0000
0.314	0.0160	0.0520	0.0003	0.0004	0.0001	0.0005	0.0000	0.0000
0.396	0.0165	0.0685	0.0004	0.0008	0.0004	0.0009	0.0000	0.0000
0.499	0.0115	0.0800	0.0037	0.0045	0.0061	0.0070	0.0004	0.0004
0.629	0.0250	0.1050	0.0295	0.0340	0.0130	0.0200	0.0506	0.0510
0.792	0.0410	0.1460	0.0460	0.0800	0.0560	0.0760	0.0290	0.0800
0.998	0.0540	0.2000	0.0420	0.1220	0.0810	0.1570	0.0580	0.1380
1.258	0.0570	0.2570	0.0730	0.1950	0.0290	0.1860	0.0480	0.1860
1.585	0.1120	0.3690	0.1050	0.3000	0.2140	0.4000	0.1120	0.2980
1.997	0.1370	0.5060	0.1100	0.4100	0.1460	0.5460	0.1980	0.4960
2.516	0.1050	0.6110	0.1420	0.5520	0.0840	0.6300	0.0820	0.5780
3.170	0.1010	0.7120	0.1090	0.6610	0.0900	0.7200	0.1090	0.6870
3.995	0.1080	0.8200	0.1040	0.7650	0.0810	0.8010	0.1120	0.7990
5.033	0.0690	0.8890	0.0840	0.8490	0.0790	0.8800	0.0810	0.8800
6.342	0.0450	0.9340	0.0630	0.9120	0.0430	0.9230	0.0430	0.9230
7.991	0.0490	0.9830	0.0670	0.9790	0.0730	0.9960	0.0730	0.9960
10.068	0.0170	1.0000	0.0210	1.0000	0.0040	1.0000	0.0040	1.0000
12.686	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
15.985	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
20.141	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
25.377	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
31.975	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000

Adetayo(1993) experimental data for Monoammonium phosphate (MAP) at 5% moisture content

Sieve Size (mm)	Initial		5 min		15 min		25 min	
	Fraction	Cumulative	Fraction	Cumulative	Fraction	Cumulative	Fraction	Cumulative
0.198	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.249	0.0360	0.0360	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.314	0.0160	0.0520	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.396	0.0165	0.0685	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.499	0.0115	0.0800	0.0020	0.0020	0.0008	0.0008	0.0030	0.0030
0.629	0.0250	0.1050	0.0080	0.0100	0.0072	0.0080	0.0090	0.0120
0.792	0.0410	0.1460	0.0250	0.0350	0.0120	0.0200	0.0260	0.0380
0.998	0.0540	0.2000	0.0350	0.0700	0.0300	0.0500	0.0400	0.0780
1.258	0.0570	0.2570	0.0600	0.1300	0.0600	0.1100	0.0740	0.1520
1.585	0.1120	0.3690	0.1200	0.2500	0.1400	0.2500	0.1280	0.2800
1.997	0.1370	0.5060	0.1670	0.4170	0.1880	0.4380	0.1890	0.4690
2.516	0.1050	0.6110	0.1130	0.5300	0.1120	0.5500	0.0960	0.5650
3.170	0.1010	0.7120	0.1100	0.6400	0.1000	0.6500	0.0950	0.6600
3.995	0.1080	0.8200	0.1250	0.7650	0.1190	0.7690	0.1190	0.7790
5.033	0.0690	0.8890	0.0740	0.8390	0.0710	0.8400	0.0590	0.8380
6.342	0.0450	0.9340	0.0710	0.9100	0.0700	0.9100	0.0720	0.9100
7.991	0.0490	0.9830	0.0810	0.9910	0.0870	0.9970	0.0820	0.9920
10.068	0.0170	1.0000	0.0090	1.0000	0.0030	1.0000	0.0080	1.0000
12.686	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
15.985	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
20.141	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
25.377	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
31.975	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000

Adetayo(1993) experimental data for Monoammonium phosphate (MAP) at 6% moisture content

Sieve Size (mm)	Initial		5 min		15 min		25 min	
	Fraction	Cumulative	Fraction	Cumulative	Fraction	Cumulative	Fraction	Cumulative
0.198	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.249	0.0360	0.0360	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.314	0.0160	0.0520	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.396	0.0165	0.0685	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.499	0.0115	0.0800	0.0010	0.0010	0.0000	0.0000	0.0000	0.0000
0.629	0.0250	0.1050	0.0140	0.0150	0.0000	0.0000	0.0000	0.0000
0.792	0.0410	0.1460	0.0070	0.0220	0.0010	0.0010	0.0010	0.0010
0.998	0.0540	0.2000	0.0370	0.0590	0.0110	0.0120	0.0020	0.0030
1.258	0.0570	0.2570	0.0560	0.1150	0.1130	0.1250	0.0120	0.0150
1.585	0.1120	0.3690	0.1050	0.2200	0.1000	0.2250	0.0450	0.0600
1.997	0.1370	0.5060	0.0950	0.3150	0.0650	0.2900	0.1080	0.1680
2.516	0.1050	0.6110	0.1630	0.4780	0.1000	0.3900	0.1070	0.2750
3.170	0.1010	0.7120	0.1120	0.5900	0.1200	0.5100	0.1300	0.4050
3.995	0.1080	0.8200	0.1280	0.7180	0.1450	0.6550	0.1680	0.5730
5.033	0.0690	0.8890	0.0970	0.8150	0.1000	0.7550	0.0720	0.6450
6.342	0.0450	0.9340	0.0830	0.8980	0.1000	0.8550	0.1200	0.7650
7.991	0.0490	0.9830	0.0950	0.9930	0.1000	0.9550	0.1500	0.9150
10.068	0.0170	1.0000	0.0070	1.0000	0.0450	1.0000	0.0850	1.0000
12.686	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
15.985	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
20.141	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
25.377	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
31.975	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000

Adetayo(1993) experimental data for Diammonium phosphate (DAP) at 2% moisture content

Sieve Size (mm)	Initial		5 min		15 min		25 min	
	Fraction	Cumulative	Fraction	Cumulative	Fraction	Cumulative	Fraction	Cumulative
0.198	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.249	0.0390	0.0390	0.0030	0.0030	0.0010	0.0010	0.0030	0.0030
0.314	0.0110	0.0500	0.0070	0.0100	0.0070	0.0080	0.0050	0.0080
0.396	0.0150	0.0650	0.0100	0.0200	0.0110	0.0190	0.0170	0.0250
0.499	0.0170	0.0820	0.0100	0.0300	0.0110	0.0300	0.0110	0.0360
0.629	0.0270	0.1090	0.0250	0.0550	0.0230	0.0530	0.0220	0.0580
0.792	0.0340	0.1430	0.0870	0.1420	0.0840	0.1370	0.0840	0.1420
0.998	0.0520	0.1950	0.0180	0.1600	0.0130	0.1500	0.0200	0.1620
1.258	0.0770	0.2720	0.0500	0.2100	0.0520	0.2020	0.0510	0.2130
1.585	0.0880	0.3600	0.1090	0.3190	0.1080	0.3100	0.1090	0.3220
1.997	0.1430	0.5030	0.2140	0.5330	0.1970	0.5070	0.1970	0.5190
2.516	0.1120	0.6150	0.0550	0.5880	0.0570	0.5640	0.0580	0.5770
3.170	0.0930	0.7080	0.1120	0.7000	0.1120	0.6760	0.1180	0.6950
3.995	0.0980	0.8060	0.1060	0.8060	0.1300	0.8060	0.1190	0.8140
5.033	0.0760	0.8820	0.0720	0.8780	0.0710	0.8770	0.0690	0.8830
6.342	0.0600	0.9420	0.0620	0.9400	0.0620	0.9390	0.0610	0.9440
7.991	0.0450	0.9870	0.0470	0.9870	0.0470	0.9860	0.0420	0.9860
10.068	0.0130	1.0000	0.0130	1.0000	0.0130	0.9990	0.0140	1.0000
12.686	0.0000	1.0000	0.0000	1.0000	0.0000	0.9990	0.0000	1.0000
15.985	0.0000	1.0000	0.0000	1.0000	0.0000	0.9990	0.0000	1.0000
20.141	0.0000	1.0000	0.0000	1.0000	0.0000	0.9990	0.0000	1.0000
25.377	0.0000	1.0000	0.0000	1.0000	0.0000	0.9990	0.0000	1.0000
31.975	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000

Adetayo(1993) experimental data for Diammonium phosphate (DAP) at 4% moisture content

Sieve Size (mm)	Initial		5 min		15 min		25 min	
	Fraction	Cumulative	Fraction	Cumulative	Fraction	Cumulative	Fraction	Cumulative
0.198	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.249	0.0390	0.0390	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
0.314	0.0110	0.0500	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002
0.396	0.0150	0.0650	0.0000	0.0000	0.0000	0.0000	0.0002	0.0004
0.499	0.0170	0.0820	0.0000	0.0000	0.0000	0.0000	0.0006	0.0010
0.629	0.0270	0.1090	0.0000	0.0000	0.0000	0.0000	0.0010	0.0020
0.792	0.0340	0.1430	0.0001	0.0001	0.0000	0.0000	0.0020	0.0040
0.998	0.0520	0.1950	0.0019	0.0020	0.0004	0.0004	0.0010	0.0050
1.258	0.0770	0.2720	0.0120	0.0140	0.0106	0.0110	0.0270	0.0320
1.585	0.0880	0.3600	0.0848	0.0988	0.0500	0.0610	0.0600	0.0920
1.997	0.1430	0.5030	0.1302	0.2290	0.0990	0.1600	0.1010	0.1930
2.516	0.1120	0.6150	0.1960	0.4250	0.1480	0.3080	0.1120	0.3050
3.170	0.0930	0.7080	0.1550	0.5800	0.1770	0.4850	0.1330	0.4380
3.995	0.0980	0.8060	0.1250	0.7050	0.1610	0.6460	0.1310	0.5690
5.033	0.0760	0.8820	0.1000	0.8050	0.1250	0.7710	0.1260	0.6950
6.342	0.0600	0.9420	0.0780	0.8830	0.1040	0.8750	0.1150	0.8100
7.991	0.0450	0.9870	0.0830	0.9660	0.0910	0.9660	0.1250	0.9350
10.068	0.0130	1.0000	0.0340	1.0000	0.0340	1.0000	0.0600	0.9950
12.686	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0050	1.0000
15.985	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
20.141	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
25.377	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
31.975	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000

Adetayo(1993) experimental data for Diammonium phosphate (DAP) at 6% moisture content

Sieve Size (mm)	Initial		5 min		15 min		25 min	
	Fraction	Cumulative	Fraction	Cumulative	Fraction	Cumulative	Fraction	Cumulative
0.198	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.249	0.0390	0.0390	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.314	0.0110	0.0500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.396	0.0150	0.0650	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.499	0.0170	0.0820	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.629	0.0270	0.1090	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.792	0.0340	0.1430	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.998	0.0520	0.1950	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1.258	0.0770	0.2720	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1.585	0.0880	0.3600	0.0150	0.0150	0.0000	0.0000	0.0000	0.0000
1.997	0.1430	0.5030	0.0220	0.0370	0.0004	0.0004	0.0002	0.0002
2.516	0.1120	0.6150	0.0830	0.1200	0.0086	0.0090	0.0002	0.0004
3.170	0.0930	0.7080	0.1150	0.2350	0.0185	0.0275	0.0086	0.0090
3.995	0.0980	0.8060	0.1680	0.4030	0.0295	0.0570	0.0120	0.0210
5.033	0.0760	0.8820	0.1170	0.5200	0.0530	0.1100	0.0570	0.0780
6.342	0.0600	0.9420	0.1450	0.6650	0.0900	0.2000	0.1370	0.2150
7.991	0.0450	0.9870	0.1150	0.7800	0.1490	0.3490	0.2380	0.4530
10.068	0.0130	1.0000	0.0620	0.8420	0.3110	0.6600	0.2370	0.6900
12.686	0.0000	1.0000	0.0580	0.9000	0.3400	1.0000	0.3100	1.0000
15.985	0.0000	1.0000	0.1000	1.0000	0.0000	1.0000	0.0000	1.0000
20.141	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
25.377	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000
31.975	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000





## VITA

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