

APPENDIX C

MINIMUM FLUIDIZATION VELOCITY DATA

The MF velocity data for all the systems studied, including that of Bloxom et al. [1975], are presented in Table 10. Run numbers that start with "M" are MF data measured by Bloxom et al. The headings in the table correspond to the following:

1. DC is the column diameter in cm,
2. DP is the particle diameter in cm,
3. RHOS is the solid density in g/cm^3 ,
4. RHOL is the liquid density in g/cm^3 ,
5. MUL is the liquid viscosity in cP,
6. UG is the gas velocity in cm/sec,
7. ULMF is the minimum liquid fluidization velocity.

Table 10. Minimum fluidization velocities

RUN	DC	DP	RHOS	RHOL	MUL	UG	ULMF
G70A13	7.62	0.46	2.24	0.995	0.010	0.0	4.15
G71A13	7.62	0.46	2.24	0.995	0.010	0.0	4.15
G81B13	7.62	0.46	2.24	0.995	0.010	0.44	3.50
G76C13	7.62	0.46	2.24	0.995	0.010	0.95	3.10
G33D13	7.62	0.46	2.24	0.995	0.010	1.77	2.60
G55D13	7.62	0.46	2.24	0.995	0.010	1.78	2.61
G27E13	7.62	0.46	2.24	0.995	0.010	3.56	2.50
G50E13	7.62	0.46	2.24	0.995	0.010	3.58	2.15
G56E13	7.62	0.46	2.24	0.995	0.010	3.58	2.15
G57F13	7.62	0.46	2.24	0.995	0.010	5.36	1.94
G54F13	7.62	0.46	2.24	0.995	0.010	5.30	1.85
G59G13	7.62	0.46	2.24	0.995	0.010	7.08	1.80
G53H13	7.62	0.46	2.24	0.995	0.010	8.91	1.63
G60H13	7.62	0.46	2.24	0.995	0.010	8.90	1.65
G64I13	7.62	0.46	2.24	0.995	0.010	10.54	1.45
G73I13	7.62	0.46	2.24	0.995	0.010	10.54	1.45
G78J13	7.62	0.46	2.24	0.995	0.010	12.23	1.40
G83J13	7.62	0.46	2.24	0.995	0.010	12.28	1.45
G68K13	7.62	0.46	2.24	0.995	0.010	13.95	1.35
G79L13	7.62	0.46	2.24	0.995	0.010	15.65	1.30
G84M13	7.62	0.46	2.24	0.995	0.010	17.15	1.10
G89A13	7.62	0.46	2.24	0.995	0.010	0.0	3.65
G90D13	7.62	0.46	2.24	0.995	0.010	1.73	2.80
G91F13	7.62	0.46	2.24	0.995	0.010	5.26	1.73
G92I13	7.62	0.46	2.24	0.995	0.010	10.51	1.32
G93I13	7.62	0.46	2.24	0.995	0.010	10.48	1.37
G94A13	7.62	0.46	2.24	0.995	0.010	0.0	3.65
G95D13	7.62	0.46	2.24	0.995	0.010	1.74	2.60
G96F13	7.62	0.46	2.24	0.995	0.010	5.24	1.80
G97I13	7.62	0.46	2.24	0.995	0.010	10.45	1.41
P01A13	7.62	0.63	1.17	0.995	0.010	0.0	1.75
P02B13	7.62	0.63	1.17	0.995	0.010	0.45	1.24
P03C13	7.62	0.63	1.17	0.995	0.010	0.95	0.95
P04D13	7.62	0.63	1.17	0.995	0.010	1.78	0.50
P05E13	7.62	0.63	1.17	0.995	0.010	3.57	0.25
P06A13	7.62	0.63	1.17	0.995	0.010	0.0	1.72
P07B13	7.62	0.63	1.17	0.995	0.010	0.45	1.30
P08C13	7.62	0.63	1.17	0.995	0.010	0.94	0.85
P09D13	7.62	0.63	1.17	0.995	0.010	1.78	0.55
P10E13	7.62	0.63	1.17	0.995	0.010	3.57	0.28
P01A16	15.24	0.63	1.17	0.995	0.010	0.0	1.58
P02B16	15.24	0.63	1.17	0.995	0.010	0.11	1.47
P03C16	15.24	0.63	1.17	0.995	0.010	0.23	1.38
P04D16	15.24	0.63	1.17	0.995	0.010	0.44	1.10
P05E16	15.24	0.63	1.17	0.995	0.010	0.88	0.86
P06F16	15.24	0.63	1.17	0.995	0.010	1.32	0.77
P07G16	15.24	0.63	1.17	0.995	0.010	1.77	0.40
P08H16	15.24	0.63	1.17	0.995	0.010	2.23	0.25
P09I16	15.24	0.63	1.17	0.995	0.010	2.66	0.21

Table 10 (continued)

RUN	DC	DP	RHOS	RHOL	MUL	UG	ULMF
P10J16	15.24	0.63	1.17	0.995	0.010	3.09	0.15
P11K16	15.24	0.63	1.17	0.995	0.010	3.51	0.10
P12L16	15.24	0.63	1.17	0.995	0.010	3.93	0.08
G01A16	15.24	0.46	2.24	0.995	0.010	0.0	4.10
G02D16	15.24	0.46	2.24	0.995	0.010	0.44	3.12
G03E16	15.24	0.46	2.24	0.995	0.010	0.88	3.03
G04F16	15.24	0.46	2.24	0.995	0.010	1.32	2.50
G05G16	15.24	0.46	2.24	0.995	0.010	1.76	2.53
G06H16	15.24	0.46	2.24	0.995	0.010	2.20	2.58
G07I16	15.24	0.46	2.24	0.995	0.010	2.64	2.45
G08J16	15.24	0.46	2.24	0.995	0.010	3.07	2.30
G09K16	15.24	0.46	2.24	0.995	0.010	3.50	2.26
G10L16	15.24	0.46	2.24	0.995	0.010	3.90	2.26
G11M16	15.24	0.46	2.24	0.995	0.010	4.32	2.21
S01A13	7.62	0.19	1.72	0.995	0.010	0.0	1.20
S02B13	7.62	0.19	1.72	0.995	0.010	0.44	1.10
S03C13	7.62	0.19	1.72	0.995	0.010	0.93	1.02
S04D13	7.62	0.19	1.72	0.995	0.010	1.76	1.05
S05E13	7.62	0.19	1.72	0.995	0.010	3.52	0.68
S06F13	7.62	0.19	1.72	0.995	0.010	5.30	0.63
S07A13	7.62	0.19	1.72	0.995	0.010	0.0	1.15
S08C13	7.62	0.19	1.72	0.995	0.010	0.93	1.25
S09G13	7.62	0.19	1.72	0.995	0.010	7.03	0.60
S10H13	7.62	0.19	1.72	0.995	0.010	8.67	0.45
S11I13	7.62	0.19	1.72	0.995	0.010	10.35	0.40
A01A13	7.62	0.62	1.99	0.995	0.010	0.0	5.00
A02B13	7.62	0.62	1.99	0.995	0.010	0.49	4.30
A03C13	7.62	0.62	1.99	0.995	0.010	0.94	3.85
A04D13	7.62	0.62	1.99	0.995	0.010	1.77	3.18
A05E13	7.62	0.62	1.99	0.995	0.010	3.51	2.59
A06F13	7.62	0.62	1.99	0.995	0.010	5.28	2.02
A07G13	7.62	0.62	1.99	0.995	0.010	7.03	1.82
A08H13	7.62	0.62	1.99	0.995	0.010	8.79	1.60
A09I13	7.62	0.62	1.99	0.995	0.010	10.57	1.59
A10J13	7.62	0.62	1.99	0.995	0.010	12.33	1.33
A11K13	7.62	0.62	1.99	0.995	0.010	14.07	1.28
A12L13	7.62	0.62	1.99	0.995	0.010	15.74	1.21
A13M13	7.62	0.62	1.99	0.995	0.010	17.42	1.23
K01A13	7.62	0.62	2.20	0.995	0.010	0.0	4.97
K03C13	7.62	0.62	2.20	0.995	0.010	0.92	4.15
K04D13	7.62	0.62	2.20	0.995	0.010	1.75	3.80
K05E13	7.62	0.62	2.20	0.995	0.010	3.51	3.05
K06A13	7.62	0.62	2.20	0.995	0.010	0.0	4.80
K07G13	7.62	0.62	2.20	0.995	0.010	7.02	2.27
K08B13	7.62	0.62	2.20	0.995	0.010	0.44	4.65
K09I13	7.62	0.62	2.20	0.995	0.010	10.57	2.02
K10K13	7.62	0.62	2.20	0.995	0.010	14.03	1.92
K11M13	7.62	0.62	2.20	0.995	0.010	17.44	1.75
C01A13	7.62	0.32	2.24	0.995	0.010	0.0	2.88

Table 10 (continued)

RUN	DC	DP	RHOS	RHOL	MUL	UG	ULMF
C02B13	7.62	0.32	2.24	0.995	0.010	0.43	2.32
C03C13	7.62	0.32	2.24	0.995	0.010	0.92	1.90
C04D13	7.62	0.32	2.24	0.995	0.010	1.76	1.60
C05E13	7.62	0.32	2.24	0.995	0.010	3.48	1.36
C06G13	7.62	0.32	2.24	0.995	0.010	6.97	1.03
C07G13	7.62	0.32	2.24	0.995	0.010	6.98	1.04
C08I13	7.62	0.32	2.24	0.995	0.010	10.45	0.96
C09K13	7.62	0.32	2.24	0.995	0.010	13.82	0.80
C10M13	7.62	0.32	2.24	0.995	0.010	17.26	0.78
M01E13	7.62	0.46	2.24	0.995	0.010	3.49	2.40
M04F13	7.62	0.46	2.24	0.995	0.010	5.23	1.87
M05G13	7.62	0.46	2.24	0.995	0.010	6.97	1.70
M02G13	7.62	0.46	2.24	0.995	0.010	6.98	1.68
M07G13	7.62	0.46	2.24	0.995	0.010	7.04	1.67
M06H13	7.62	0.46	2.24	0.995	0.010	8.78	1.68
M03I13	7.62	0.46	2.24	0.995	0.010	10.51	1.55
M09K13	7.62	0.46	2.24	0.995	0.010	14.06	1.32
M29E43	7.62	0.46	2.24	1.100	0.038	3.54	1.06
M30F43	7.62	0.46	2.24	1.100	0.038	5.31	1.04
M31G43	7.62	0.46	2.24	1.100	0.038	7.10	1.03
M32H43	7.62	0.46	2.24	1.100	0.038	8.87	0.87
M33J43	7.62	0.46	2.24	1.100	0.038	12.40	0.88
M23E73	7.62	0.46	2.24	1.140	0.069	3.54	0.93
M24F73	7.62	0.46	2.24	1.140	0.057	5.33	0.88
M25G73	7.62	0.46	2.24	1.140	0.065	7.10	0.75
M26H73	7.62	0.46	2.24	1.140	0.065	8.87	0.77
M27J73	7.62	0.46	2.24	1.140	0.064	12.42	0.61
M17E93	7.62	0.46	2.24	1.150	0.091	3.54	0.72
M18F93	7.62	0.46	2.24	1.150	0.091	5.31	0.72
M19G93	7.62	0.46	2.24	1.150	0.092	7.05	0.63
M20H93	7.62	0.46	2.24	1.150	0.089	8.81	0.62
M21J93	7.62	0.46	2.24	1.150	0.098	12.32	0.58
M12E113	7.62	0.46	2.24	1.160	0.110	3.53	0.60
M13F113	7.62	0.46	2.24	1.160	0.116	5.29	0.67
M14G113	7.62	0.46	2.24	1.160	0.114	7.02	0.60
M15H113	7.62	0.46	2.24	1.160	0.115	8.77	0.58
M16J113	7.62	0.46	2.24	1.160	0.114	12.28	0.51