

A	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Surface area shape factor:				3.14159	Volume shape factor:				0.5236					
2					i.e. pi				i.e. pi/6						
3															
4	$fi(\pi/6)xi^3$														
5	Particle	fi	xi	ni	mi			xini		ximi		fi(pi)xi^2		fi(pi/6)xi^3	
6	size	Number	Average	Relative	Relative	Mass in	Relative	Relative	Cumul've	Cumul've	Contribution:		Contribution:		mi/xi
7		in grade	size in	number	number	grade ove	mass	mass	number	mass	to mean	to mean	surface	to	
8	(um)		grade	(-)	per um	density	(-)	per um	undersize	undersize	by no.	by mass	area	volume	(1/um)
9			(um)		(1/um)	(um^3)		(1/um)			(um)	(um)	(um^2)	(um^3)	
10	5	0							0	0					
11	7	50	6	0.09524	0.04762	5654.87	0.00385	0.00193	0.09524	0.00385	0.57143	0.02311	5654.87	5654.87	0.00064
12	10	150	8.5	0.28571	0.09524	48233.3	0.03285	0.01095	0.38095	0.0367	2.42857	0.27919	34047	48233.3	0.00386
13	15	200	12.5	0.38095	0.07619	204531	0.13928	0.02786	0.7619	0.17598	4.7619	1.74103	98174.8	204531	0.01114
14	20	55	17.5	0.10476	0.02095	154339	0.1051	0.02102	0.86667	0.28108	1.83333	1.83929	52916.2	154339	0.00601
15	30	45	25	0.08571	0.00857	368155	0.25071	0.02507	0.95238	0.53179	2.14286	6.2677	88357.3	368155	0.01003
16	40	20	35	0.0381	0.00381	448986	0.30575	0.03058	0.99048	0.83754	1.33333	10.7013	76969	448986	0.00874
17	50	5	45	0.00952	0.00095	238565	0.16246	0.01625	1	1	0.42857	7.31064	31808.6	238565	0.00361
18	100	0	75	0	0	0	0	0	1	1	0	0	0	0	0
19	TOTALS:	525		1		1468464	1				13.5	28.1623	387928	1468464	0.04403
20	Mean particle size by number:				13.5 um	-from column K									
21	Mean particle size by mass:				28.1623 um	-from column L									
22	Specific surface area/volume:				0.26417 1/um	- from column M over N									
23	Specific surface area/volume:				0.26417 1/um	6 times column O									
24	Sauter mean diameter:				22.7124 um	using Sv=6/x									
25															
26	NB The specific surface is the same when calculated from the number														
27	distributions (columns M and N as when using the mass distribution in														
28	column O														
29															
30															
31															
32															
33															
34															
35															
36															

