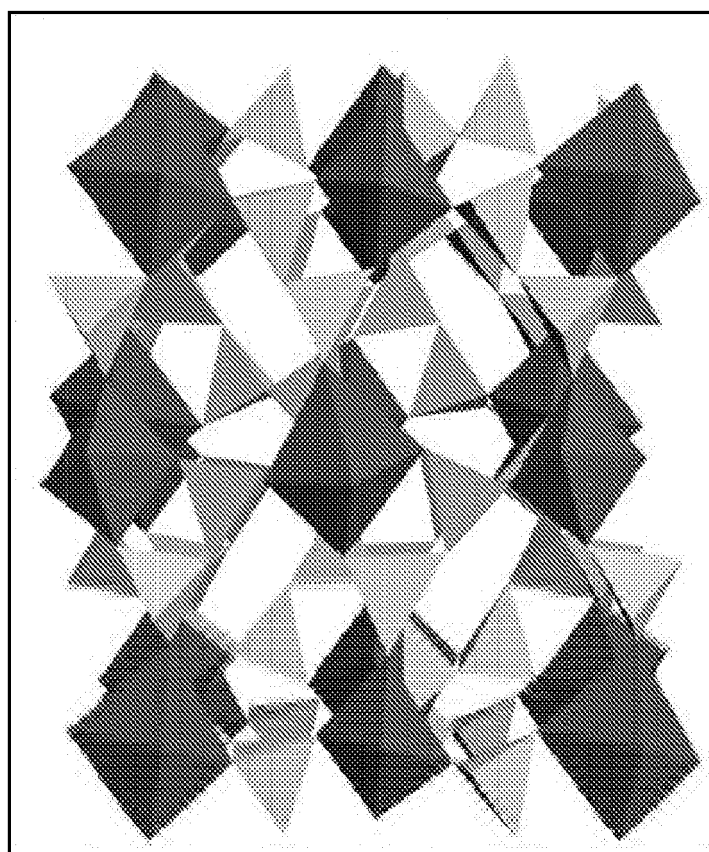




Dark = ZrO_3 (oct), Light = SiO_2 (tet), Cations not shown

Fig. 1

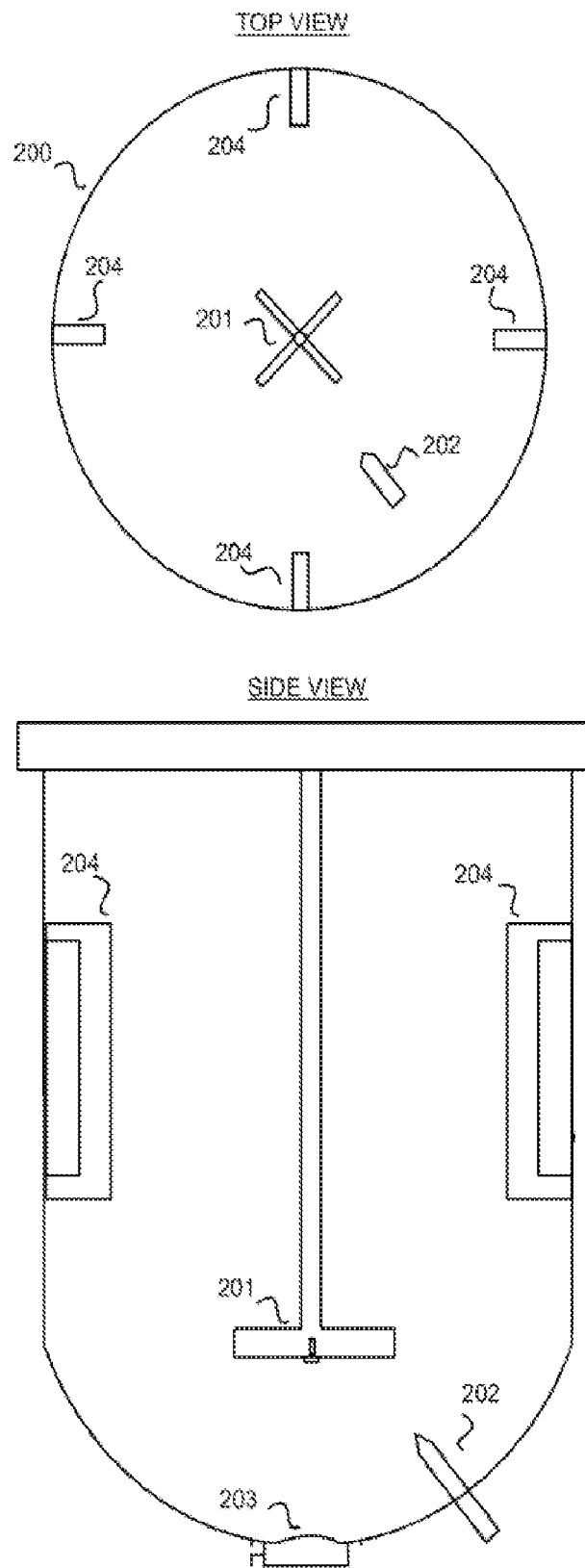


Fig. 2

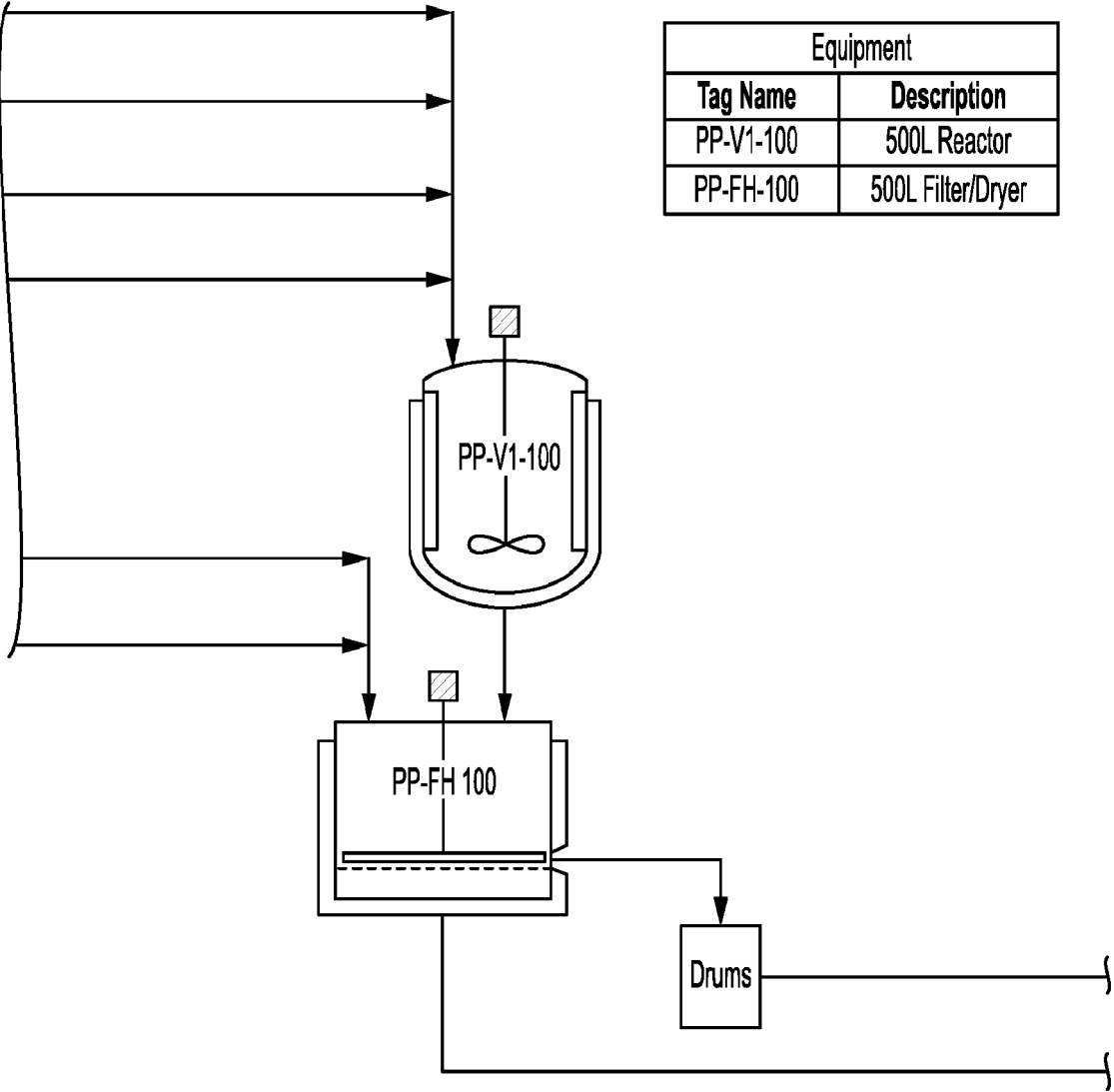


Fig. 3

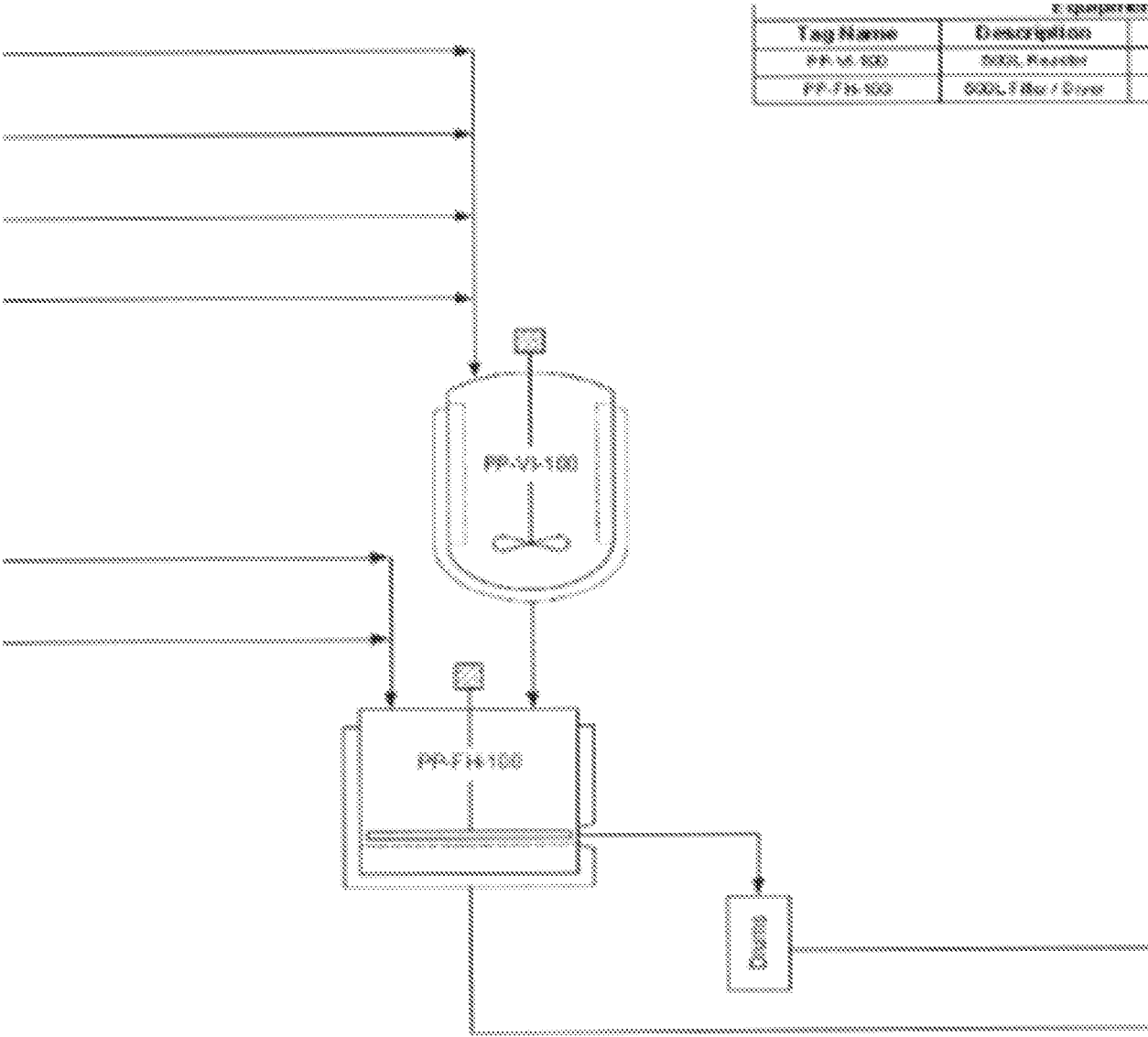
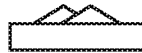


Fig. 3



MASTERSIZER

Result Analysis Report

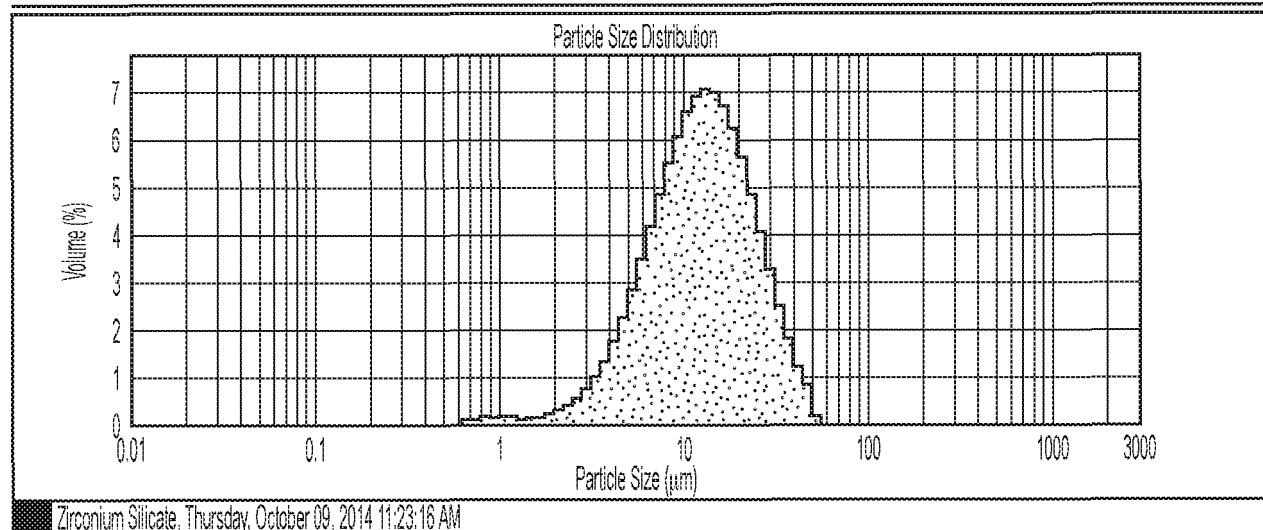
Operator notes:
ZS PHARMA, INC
TM#: MM755.04
Chemist: PO
Particle Technology Labs

Zirconium Silicate
ZS140049 - Composite
PTL ID: 200746-44

SOP Name:
ZS Pharma - ZS-9
Result Source:
Measurement
Number of this Measurement:
2

Measured:
Thursday, October 09, 2014 11:23:16 AM
Analyzed:
Thursday, October 09, 2014 11:23:18 AM
Number of Measurements:
4

Particle Name: ZS-9(0.001)	Accessory Name: Hydro 20008 (A)	Pump Speed: 2000 RPM	Analysis model: General purpose	Sensitivity: Normal
Particle Rl: 1.560	Absorption: 0.001		Size range: 0.020 to 2000.000 um	Obscuration: 13.73 %
Dispersant Name: Water	Dispersant Rl: 1.330	Average Result Records:	Weighted Residual: 0.465 %	Result Emulation: Off
Concentration: 0.0185 %Vol	Span: 1.761		Uniformity: 0.545	Result units: Volume
Specific Surface Area: 0.629 m ² /g	Surface Weighted Mean D[3,2]: 9.536 um		Vol. Weighted Mean D[4,3]: 14.957 um	
d(0,1): 5.236 um	d(0,5): 12.814 um		d(0,9): 27.845 um	



Size (um)	Vol Under %	Size (um)	Vol Under %	Size (um)	Vol Under %	Size (um)	Vol Under %	Size (um)	Vol Under %	Size (um)	Vol Under %
0.020	0.00	0.142	0.00	1.002	0.39	7.096	19.18	50.238	99.47	355.458	100.00
0.022	0.00	0.159	0.00	1.125	0.48	7.962	24.00	56.368	100.00	399.662	100.00
0.025	0.00	0.178	0.00	1.242	0.56	8.934	29.49	63.246	100.00	447.744	100.00
0.026	0.00	0.200	0.00	1.416	0.62	10.024	35.58	70.963	100.00	502.377	100.00
0.032	0.00	0.224	0.00	1.589	0.70	11.247	42.16	79.521	100.00	563.677	100.00
0.036	0.00	0.252	0.00	1.783	0.80	12.810	49.07	89.337	100.00	632.456	100.00
0.046	0.00	0.283	0.00	2.000	0.95	14.159	50.11	100.237	100.00	709.627	100.00
0.046	0.00	0.317	0.00	2.244	1.18	15.887	53.09	112.458	100.00	796.214	100.00
0.050	0.00	0.356	0.00	2.518	1.51	17.825	53.79	126.191	100.00	893.367	100.00
0.056	0.00	0.399	0.00	2.825	1.99	20.000	76.01	141.519	100.00	1102.374	100.00
0.063	0.00	0.448	0.00	3.170	2.68	22.440	81.60	158.846	100.00	1124.683	100.00
0.071	0.00	0.502	0.00	3.557	3.63	25.179	86.43	176.216	100.00	1261.915	100.00
0.080	0.00	0.564	0.00	3.991	4.92	28.251	90.46	200.000	100.00	1415.892	100.00
0.089	0.00	0.632	0.00	4.477	6.63	31.596	93.68	224.404	100.00	1588.656	100.00
0.100	0.00	0.710	0.06	5.024	8.84	35.566	96.13	251.795	100.00	1782.502	100.00
0.112	0.00	0.796	0.10	5.637	11.63	39.905	97.89	282.506	100.00	2000.000	100.00
0.126	0.00	0.893	0.25	6.325	15.68	44.774	99.07	314.979	100.00		

Fig. 4

5/5

*** Multi Plot ***

File Name : ZS Pharma47295A
 Sample Name : ZS140049-Composite
 Date & Time : 10-08-14 12:51:51
 Condition
 X-ray Tube : Cu (1.54060 Å) Voltage : 40.0 kV Current : 35.0 mA
 Scan Range : 4.0000 <-> 45.0000 deg Step Size : 0.0200 deg
 Count Time : 0.06 sec Slit DS : 1.00 deg SS : 1.00 deg RS : 0.30 mm

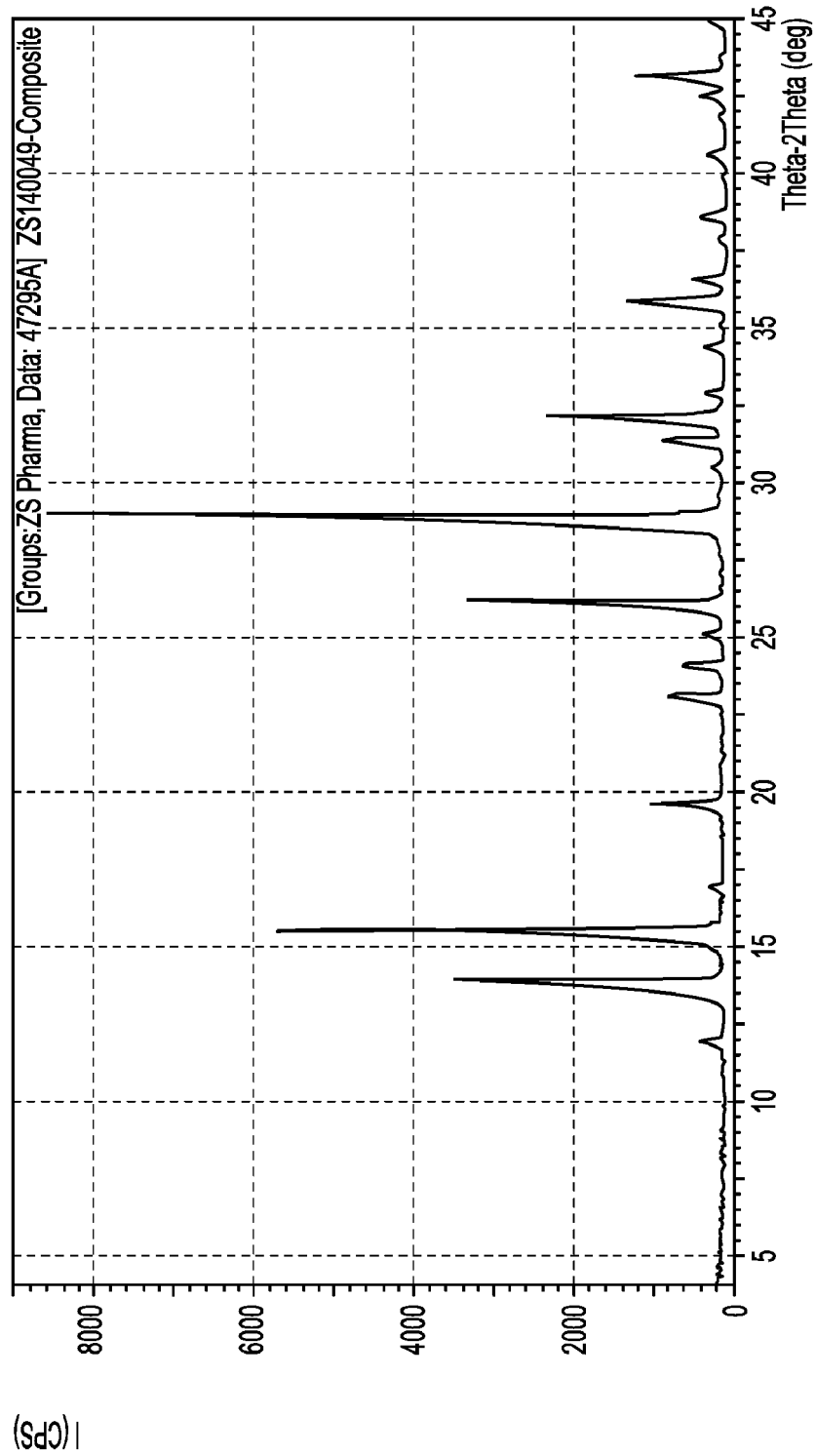


Fig. 5