

SUPPLEMENTARY MATERIALS

Table S1. Grain size analysis with grinding time (80 min).

Assay #1		(%) Sands: 98.79		(%) Fine sand: 1.21	
Mesh #	Opening diameter (μm)	Weight (g)	Weight (%)	% Ac. (+) retained	% Ac. (-) passing
10	2000	1.42	0.57	0.57	99.43
18	1000	9.34	3.75	4.33	95.67
35	500	26.52	10.66	14.99	85.01
60	250	121.06	48.66	63.65	36.35
120	125	47.49	19.09	82.74	17.26
230	63	39.92	16.05	98.79	1.21
325	45	0.09	0.04	98.82	1.18
400	37	0.115	0.05	98.87	1.13
−400	37	2.81	1.13	100.00	0.00
TOTAL		248.765	100.00		

Table S2. Grain size analysis with grinding time (100 min).

Assay #2		(%) Sands: 84.29		(%) Fine sand: 15.71	
Mesh #	Opening diameter (μm)	Weight (g)	Peso (%)	% Ac. (+) retained	% Ac. (-) passing
10	2000	0.68	0.27	0.27	99.73
18	1000	0.12	0.05	0.32	99.68
35	500	2.21	0.89	1.21	98.79
60	250	39.78	15.99	17.20	82.80
120	125	109.07	43.83	61.03	38.97
230	63	57.88	23.26	84.29	15.71
325	45	9.34	3.75	88.04	11.96
400	37	7.35	2.95	91.00	9.00
−400	37	22.40	9.00	100.00	0.00
TOTAL		248.83	100.00		

Table S3. Grain size analysis with grinding time (120 min).

Assay #3		(%) Sands: 77.05		(%) Fine sand: 22.95	
Mesh #	Opening diameter (μm)	Weight (g)	Weight (%)	% Ac. (+) re-tained	% Ac. (-) passing
10	2000	0.26	0.10	0.10	99.90
18	1000	0.09	0.04	0.14	99.86
35	500	1.27	0.51	0.65	99.35
60	250	16.58	6.65	7.30	92.70
120	125	76.07	30.52	37.82	62.18
230	63	97.81	39.24	77.05	22.95
325	45	13.61	5.46	82.51	17.49
400	37	2.29	0.92	83.43	16.57
−400	37	41.30	16.57	100.00	0.00
TOTAL		249.28	100.00		

Table S4. Grain size analysis with grinding time (140 min).

Assay #4		(%) Sands: 59.57		(%) Fine sand: 40.43	
Mesh #	Opening diameter (µm)	Weight (g)	Weight (%)	% Ac. (+) re-tained	% Ac. (-) passing
10	2000	0.01	0.00	0.00	100.00
18	1000	0.61	0.24	0.25	99.75
35	500	0.58	0.23	0.48	99.52
60	250	3.12	1.25	1.73	98.27
120	125	41.02	16.45	18.18	81.82
230	63	103.18	41.38	59.57	40.43
325	45	14.48	5.81	65.38	34.62
400	37	2.86	1.15	66.52	33.48
−400	37	83.47	33.48	100.00	0.00
TOTAL		249.33	100.00		

Table S5. Verification test with grinding time (120 min).

Assay #5		(%) Sands: 76.36		(%) Fine sand: 23.64	
Mesh	Opening diameter (µm)	Weight (g)	Weight (%)	% Ac. (+) re-tained	% Ac. (-) passing
10	2000	0.22	0.09	0.09	99.91
18	1000	0.72	0.29	0.38	99.62
35	500	1.54	0.62	1.00	99.00
60	250	18.39	7.38	8.38	91.62
120	125	73.67	29.57	37.95	62.05
230	63	95.72	38.42	76.36	23.64
325	45	15.85	6.36	82.73	17.27
400	37	2.57	1.03	83.76	16.24
−400	37	40.47	16.24	100.00	0.00
TOTAL		249.15	100.00		