

## BeVision S1

### Classic Image Analyzer for Particle Size and Shape



BeVision S1 employs the latest particle image processing software to the traditional microscope imaging method, providing visualized and accurate particle size distribution and shape analysis results. BeVision S1 is used widely in particle shape observation and analysis, such as grinding abrasives, super-hard materials, spherical materials and metal powder abrasives.

#### Features/Benefits:

- Measuring range: 1 $\mu$ m to 3000 $\mu$ m
- Magnification: max.4000 times
- Accuracy: conform with ISO 13320: 2014
- Repeatability:  $\leq 3\%$  (GBRM D50)
- CCD: 5 megapixel
- Optical microscope: indigenous /metallographic microscope
- Standard stage micrometer: 10 $\mu$ m
- Particle size and shape analysis: particle size distribution, content for specific interval, aspect ratio, circularity distribution
- Auto Segmentation Speed: <1second
- Segmentation Success Rate: >93%



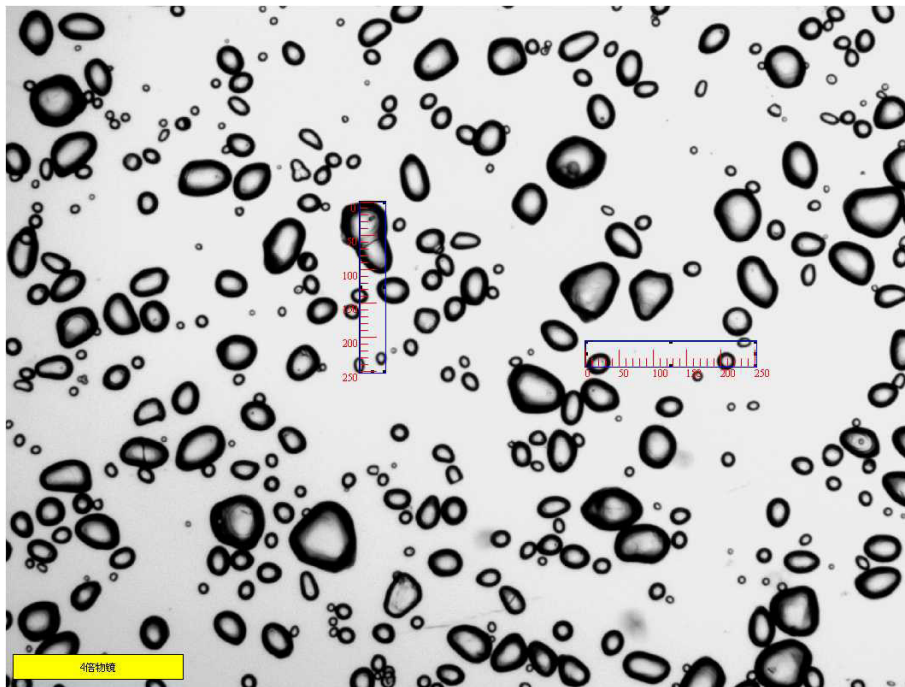
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### Outstanding Advantages

1. BeVision S1 provides visualized and accurate analysis results.

- **Clear particle image:** potato starch



- **Multiple analysis results:** particle size distribution, aspect ratio, circularity distribution, etc.

Results The current usage database is: '...

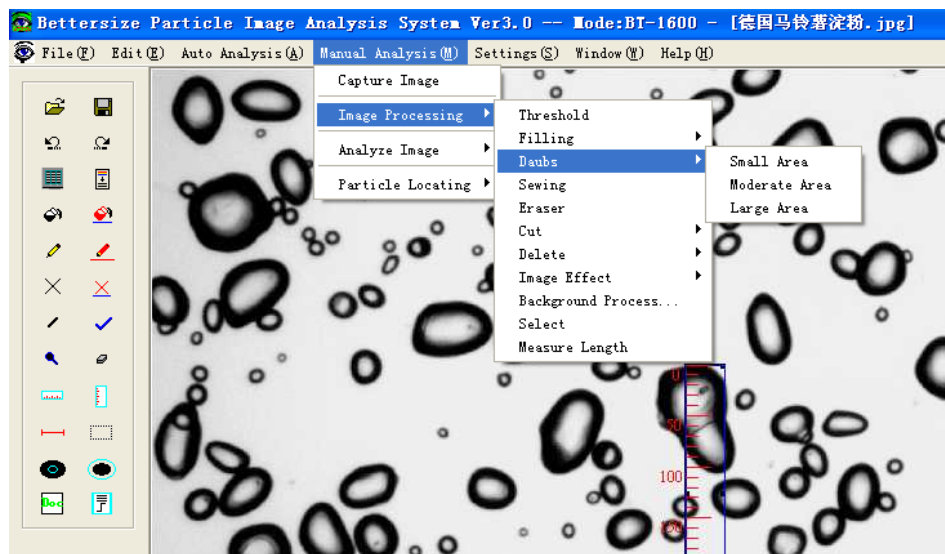
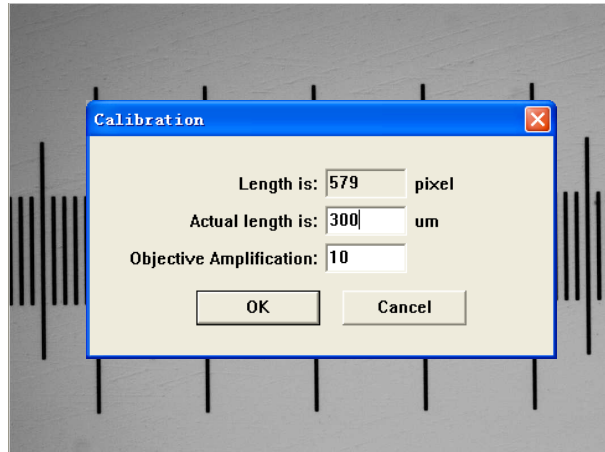
NO.	Area	Diam...	L	D	L/D	Circul...	Perim...
1	3689.24	68.53	68.75	57.29	1.20	0.448	321.46
2	1702.47	46.55	51.04	51.04	1.00	0.814	162.08
3	1477.86	43.37	42.71	37.50	1.13	0.660	167.71
4	1448.57	42.94	47.92	40.63	1.17	0.675	164.17
5	1297.74	40.64	46.88	34.38	1.36	0.819	141.04
6	1238.06	39.70	43.75	37.50	1.16	0.746	144.38
7	1139.32	38.08	34.38	34.38	1.00	0.759	137.29
8	1025.39	36.13	43.75	29.17	1.50	0.679	137.71
9	879.99	33.47	33.33	32.29	1.03	0.599	135.83
10	832.25	32.55	39.58	29.17	1.35	0.733	119.38
11	819.23	32.29	36.46	29.17	1.25	0.813	112.50
12	815.97	32.23	36.46	29.17	1.25	0.747	117.08
13	773.65	31.38	34.38	22.92	1.50	0.828	108.33
14	754.12	30.98	27.08	26.04	1.04	0.681	117.92
15	747.61	30.85	36.46	33.33	1.09	0.707	115.21
16	744.36	30.78	32.29	26.04	1.24	0.752	111.46
17	708.55	30.03	37.50	25.00	1.50	0.798	105.63
18	666.23	29.12	27.08	27.08	1.00	0.809	101.67
19	610.57	28.00	27.08	27.08	1.00	0.717	104.17

Left sidebar controls: Results, Size, L/D, Circul...; Grades Setting; Graph Parameter; Other (Filtering, Single, Save).

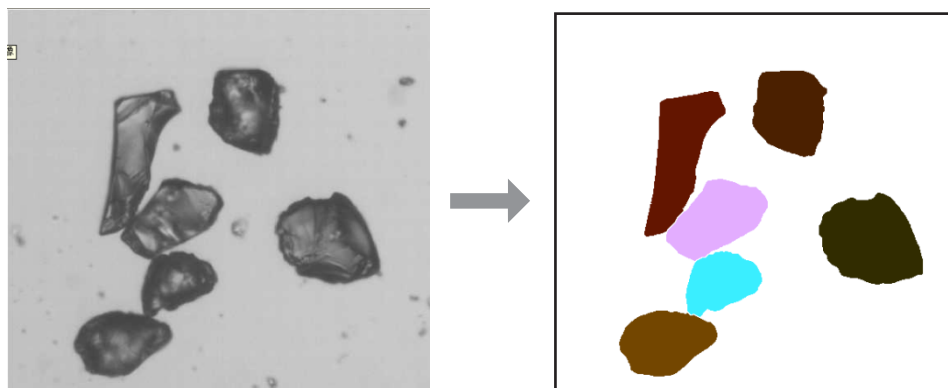
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## Classic Image Analyzer for Particle Size and Shape

- **Calibration method:** use standard stage micrometer to calibrate the size of each pixel, then measure the size of particle in micron according to the pixel data.



- **Auto segmentation:** split connected particles automatically.

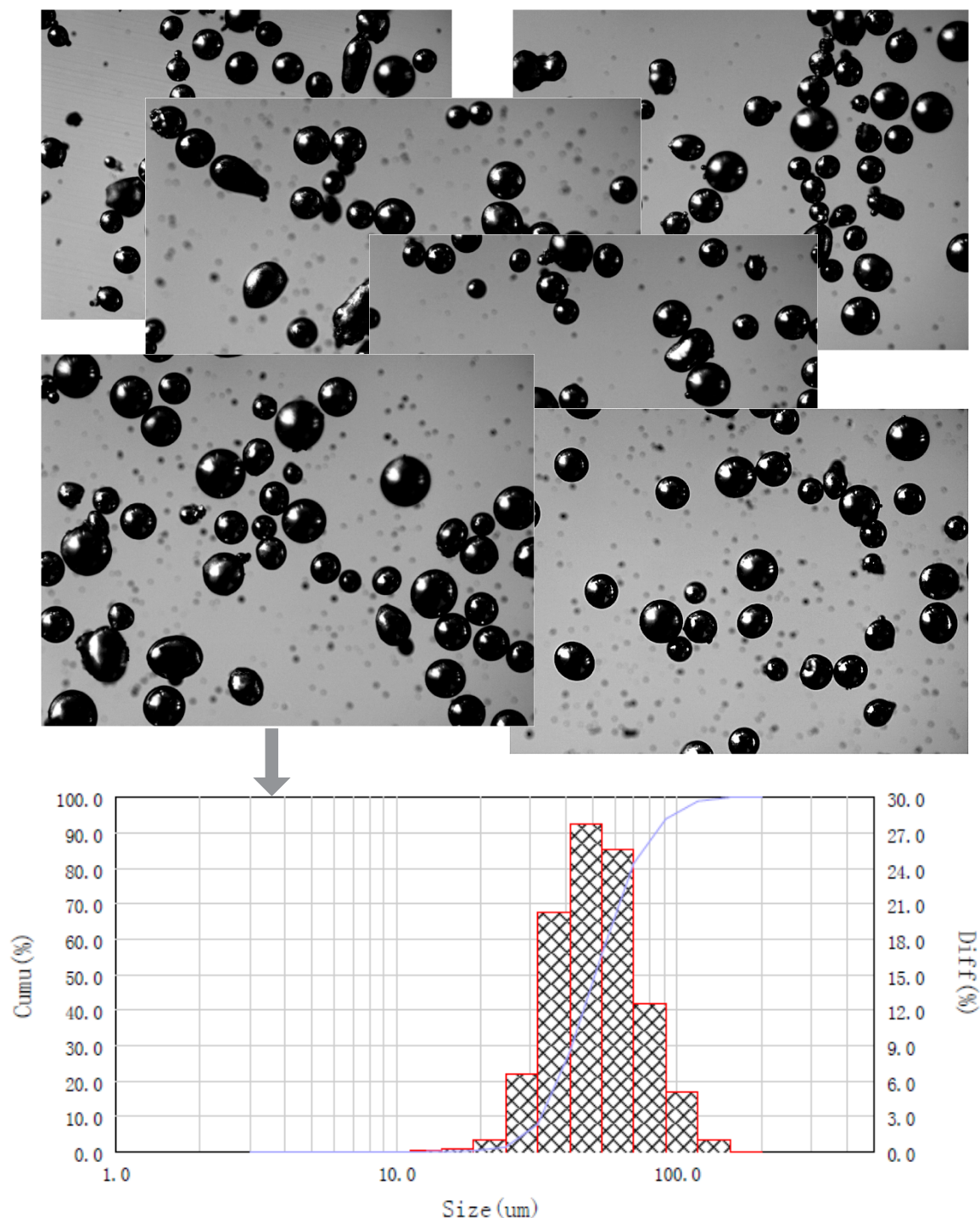


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## Classic Image Analyzer for Particle Size and Shape

### 2. Multiple images analysis improves the accuracy

**Multiple images analysis:** in order to increase the statistical representation of the sample, multiple images can be analyzed together to provide the particle distribution which is close to the real data.





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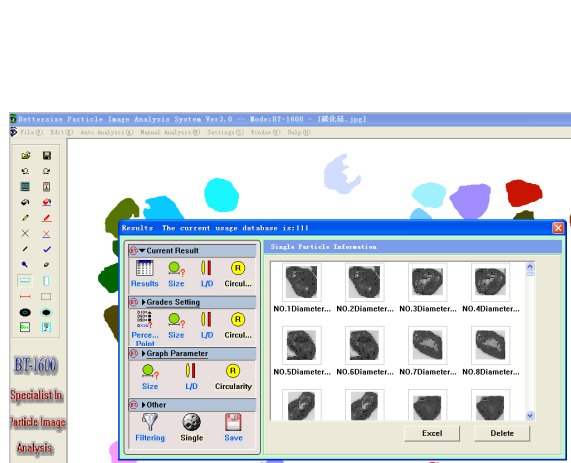
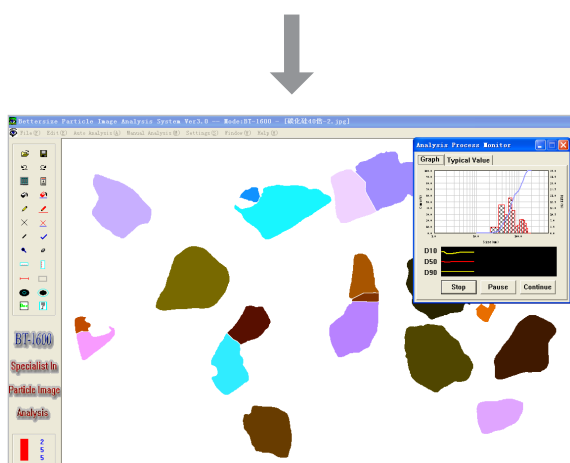
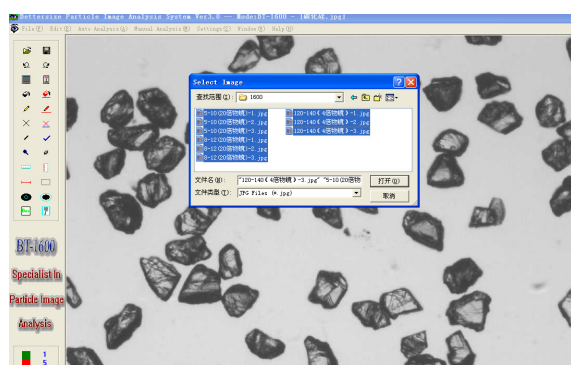
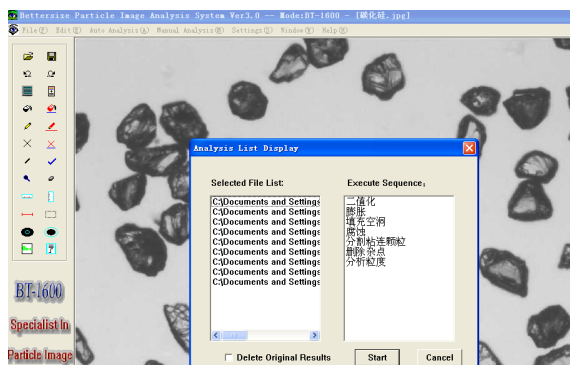
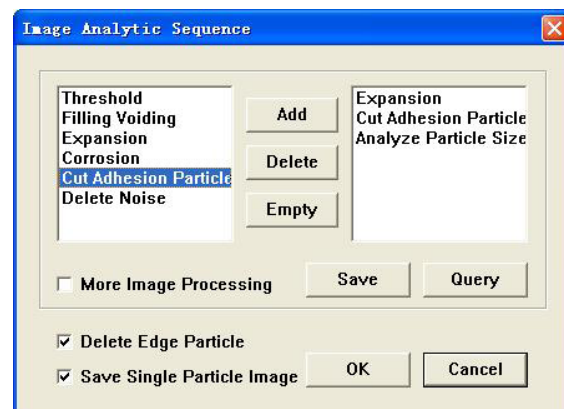
## Classic Image Analyzer for Particle Size and Shape

### Powerful Software Eases Your Workload

BeVision S1 offers such simple, straightforward operation with clear result interpretation that anyone can use it.

#### Automatic analysis:

set "Image Analytic Sequence",  
select the images. Multiple images  
can be analyzed together when you  
click "Automatic Analysis" button.



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## Classic Image Analyzer for Particle Size and Shape

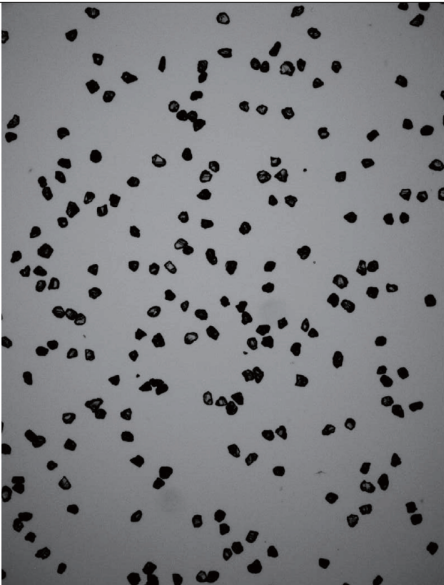
### Example of Report

Bettersize™

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#### Particle Image Analysis System Size Results

Sample: SiC	Sample Owner: Better size			
Sample NO.:	Measured By : Better size			
Operator: LM	Data: 2017-02-24	Time: 09:40:57		
Remark:	Distribution: Volume			

Size (um)	Diff%	Cumu%	<div>Particle image</div> 
10.0 - 10.9	0.03	0.03	
10.9 - 12.0	0.05	0.08	
12.0 - 13.2	0.03	0.11	
13.2 - 14.5	0.04	0.15	
14.5 - 16.0	0.01	0.16	
16.0 - 17.5	0.02	0.18	
17.5 - 19.3	0.28	0.46	
19.3 - 21.2	1.00	1.46	
21.2 - 23.3	14.23	15.69	
23.3 - 25.6	24.11	39.80	
25.6 - 28.1	34.64	74.44	
28.1 - 30.9	13.23	87.67	
30.9 - 33.9	7.54	95.21	
33.9 - 37.2	2.89	98.10	
37.2 - 40.9	1.59	99.69	
40.9 - 45.0	0.31	100.00	

D03= 21.69 um	D06= 22.07 um	D10= 22.58 um	D16= 23.33 um	D25= 24.47 um
D50= 26.33 um	D75= 28.23 um	D84= 30.12 um	D97= 35.81 um	D98= 37.05 um
Quantity: 1547	Max Dia.: 41.66 um	Min Dia.: 9.98 um	SSA: 0.084 m <sup>2</sup> /g	Span: 0.33

