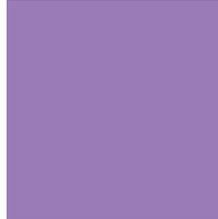


ParticleFinder™: Automatic Particle Location and Raman Chemical ID

Get the Full Picture of your Particles in Seconds!



Unique Features & Benefits

ParticleFinder™ offers a user-friendly tool for automated location, size and shape characterization, and Raman analysis of thousands of particles.

Visualize → Analyze → Understand your particles

The combination of morphological and chemical data on a particle allows an accurate characterization and classification.

Your particles have a unique Raman chemical ID!

ParticleFinder™, together with HORIBA Raman spectrometers, enables reliable and fast characterization of particles useful for pharmaceutical and chemical material development and quality control, forensic analysis, contaminant detection and geology.

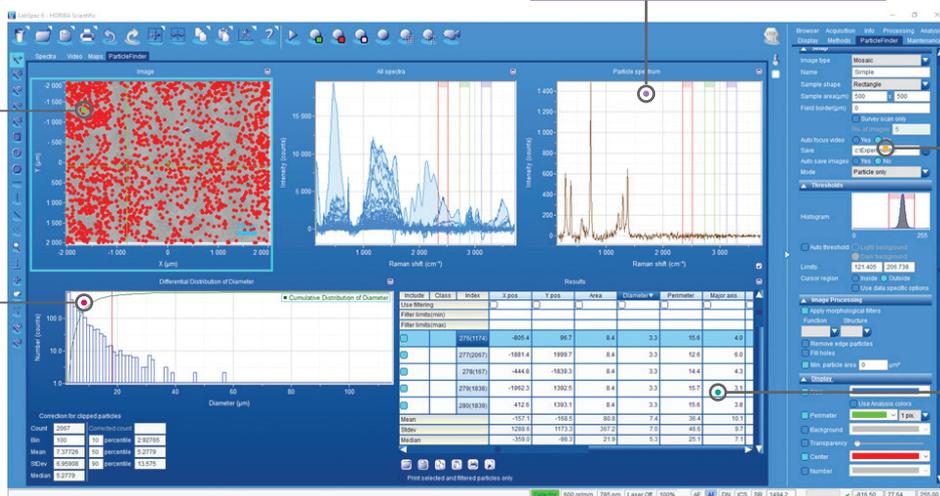
Automatic location of particles

Statistical particle analysis and classification

Automatic acquisition of Raman spectrum for each particle

Advanced data processing, analysis and display functionality

Particle size and particle shape characterization



LabSpec 6 Interface with ParticleFinder™ Module

ParticleFinder™: New Features

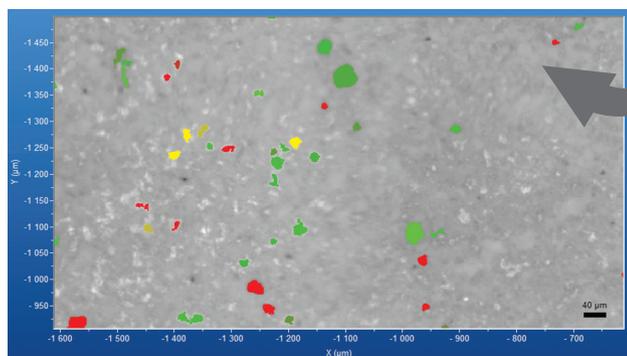
Particle Classification

Bring the full capabilities of the LabSpec 6 Spectroscopy Suite to your particle analysis. The use of LabSpec's univariate and multivariate features as well as KnowItAll® database allows users to easily classify each particle according to its spectral fingerprint.

Your particles have a unique Raman chemical ID!

Class	Index	X pos	Y pos	Area	Diam.	Perim.	Major a.	Minor	Ellips.	Circu.	Brightness	Image	Raman	ID
1(62)		349.9	1949.5	1004.7	35.8	170.1	48.8	29.2	0.60	0.66	123.9			
2(51)		-862.9	1393.5	1019.9	36.0	139.4	40.7	32.6	0.80	0.81	115.3			
3(15)		-980.4	-1087.3	1023.2	36.1	147.0	40.8	32.7	0.80	0.77	61.1			
4(25)		878.5	-103.6	1026.6	36.2	160.3	41.4	35.6	0.86	0.71	120.2			
5(5)		552.3	-1688.6	1046.8	36.5	243.6	46.0	35.8	0.78	0.47	120.6			
6(2)		-194.5	-1829.5	1051.0	36.6	152.8	53.5	23.7	0.44	0.75	128.9			
7(50)		-1560.9	1195.2	1053.5	36.6	194.9	51.0	29.9	0.58	0.59	101.4			
8(52)		1576.7	1518.0	1070.4	36.9	192.3	58.8	32.7	0.56	0.60	227.3			
9(8)		-333.2	-1603.4	1082.1	37.1	141.4	43.7	30.6	0.70	0.82	125.4			
Mean		-0.8	122.7	2324.0	50.6	295.1	70.0	43.2	0.63	0.62	118.8			
Stdev		1046.9	1195.7	2423.8	19.9	212.7	27.0	20.3	0.16	0.15	35.6			
Median		17.4	295.8	1444.8	42.9	229.0	62.7	35.2	0.64	0.64	122.1			

Statistical & Morphological Information on Particles | Raman Chemical ID



Visualize Raman particle ID easily.

Average Raman Spectrum and Raman Mapping on a Particle

Now, it is possible to acquire 3 types of spectra on a particle with instant particle measurement and classification.

- Single spectrum at the center
- Average spectrum
- Full mapping



ParticleFinder™: Main Features

- Automated particle location and analysis in seconds
- Up to a thousand particles analyzed with micrometer resolution
- Autothreshold and morphological filtering tools allowing quick location of particles
- Easy particle selection according to the statistical results
- Compositional analysis with unprecedented Raman accuracy
- 1 shot Raman acquisition by particle or full particle mapping
- Customizable report displaying location, size, shape and Raman spectral fingerprint

Main Applications

Pharmaceutical

- Drug formulations
- Contaminants in liquids
- Protein aggregates
- Cleanliness



Environment - Geology

- Micro-plastics in water
- Harmful respirable silica
- Bacteria
- Mineral sample composition



Forensics

- Trace evidence, fibers and chips



Recommended Configuration

ParticleFinder™ (version 2) is compatible with HORIBA's LabRAM HR Evolution & XploRA Series Raman microscopes. Recommended configuration:

- Bright-field objectives (10x, 50x, 100x)
- High resolution video camera ≥3 MPixels
- High accuracy XY sample stage
- Motorized z device + autofocus
- Additional software packages: Multivariate analysis, KnowItAll®

Get the Full Picture of your Particles in Seconds!

Find out more: www.horiba.com/particlefinder

HORIBA
Scientific

info.sci@horiba.com

USA: +1 732 494 8660
UK: +44 (0)20 8204 8142
China: +86 (0)21 6289 6060

France: +33 (0)1 69 74 72 00
Italy: +39 2 5760 3050
Brazil: +55 (0)11 2923 5400

www.horiba.com/scientific

Germany: +49 (0)6251 8475-0
Japan: +81 (75) 313 8123
Other: +33 (0)1 69 74 72 00