Collection Pro

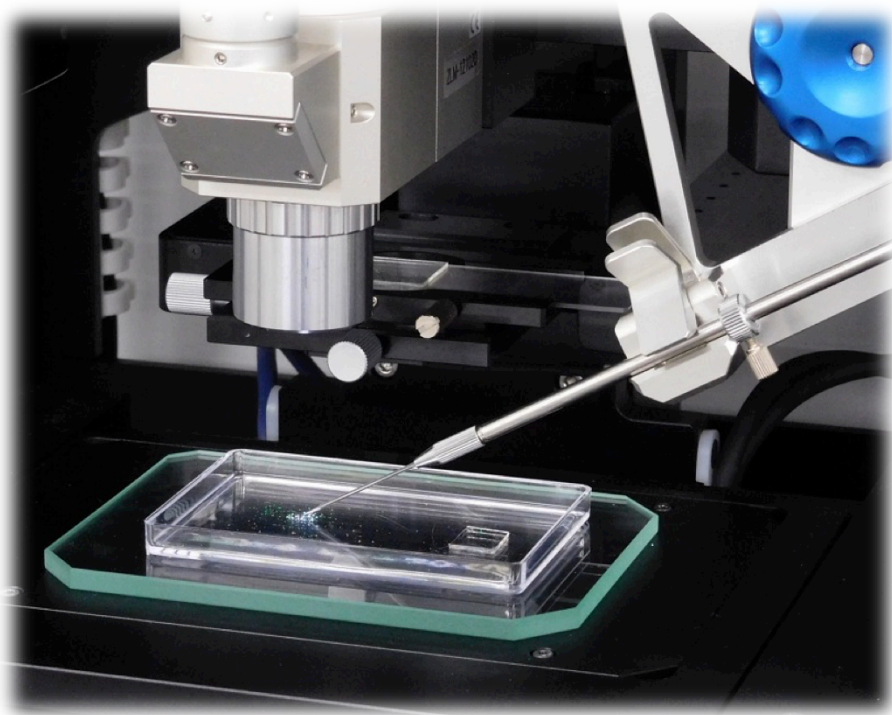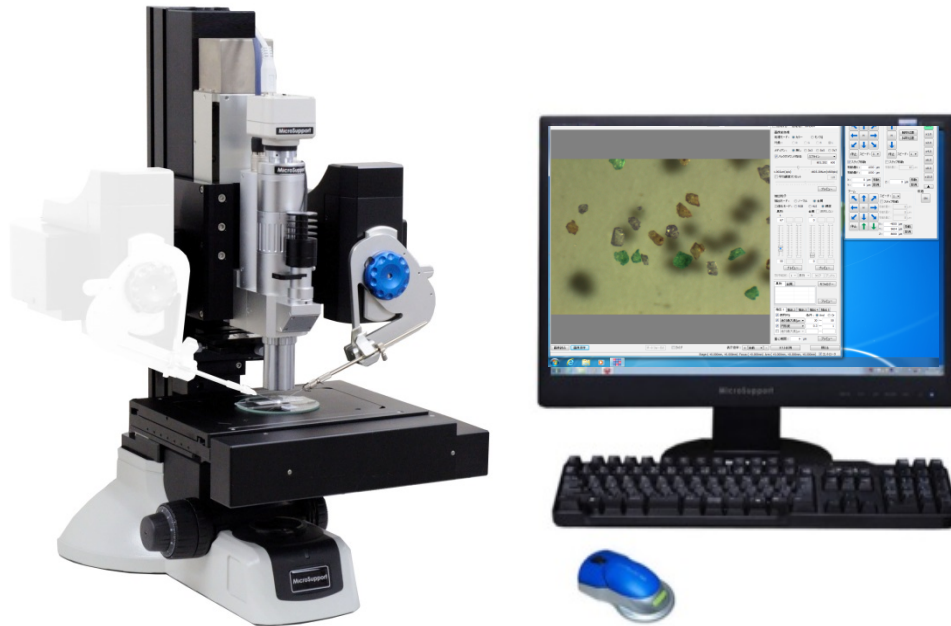## *Automatic System for Collection and Sorting of Micro-Grains*

Evolutionary system for micro-samping

MicroSupport

Collection Pro

Automated grain sorting and collection using imaging technology
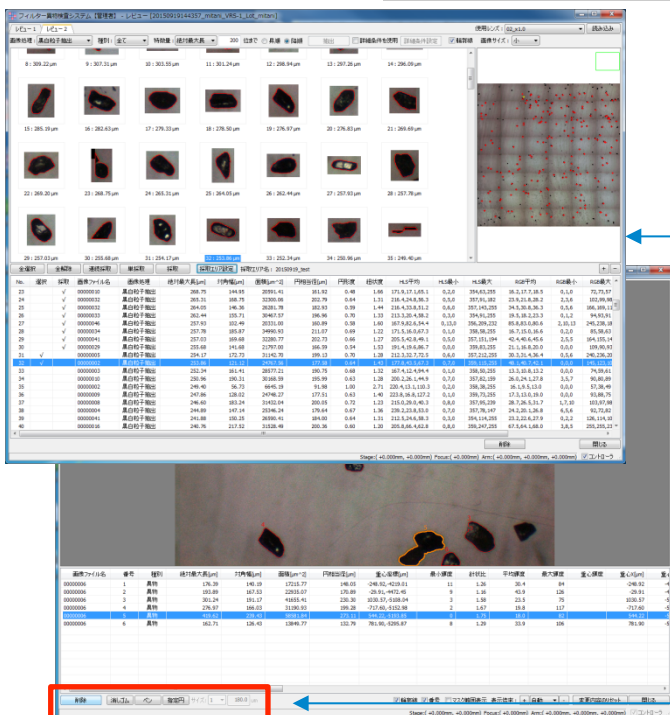**Reduces separation burden on researchers!**

Function

1. Automatic imaging of sample area to classify particles

■ High-speed image acquisition
Multithread image processing using high-speed mapping stage: the area within a radius of 40 mm can be scanned in about 1 min.

■ Correction of light variation throughout sample area.

■ Classification of ～50 μm particles based on shape, color and size.
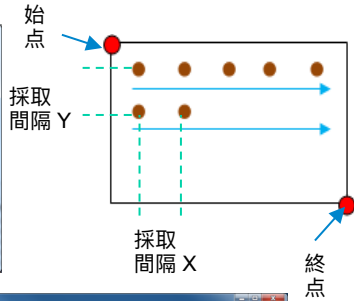
2. Confirmation and editing of results

■ **Simplification of results**
Particle list with images are displayed automatically.

■ **Effective editing function**
Particle list may be editing for removal or addition before separation.

| Delete | Elaser | Pen | circle |

MicroSupport

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Automated grain sorting and collection using imaging technology
Reduces separation burden on researchers!
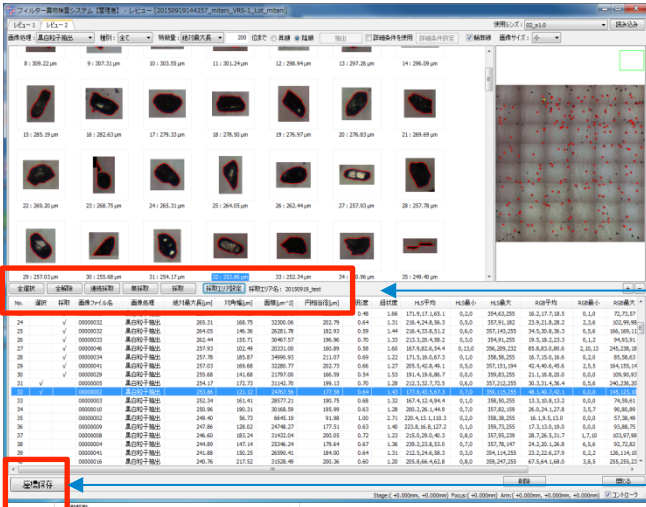
Function

3. Easy collection set-up

■ Collection using Micro Support vacuum absorption accessory

Accessory attached to micropipette for separating particle.

Easy set-up of vacuum tool for separation using the vacuum set-up wizard.

■ Choice of collection regions
Up to 5 regions can be defined.
Option to set up cleaning location for nozzle.

Deposit selected particles with equal spacing in the designated area.

■ Choice of collection method
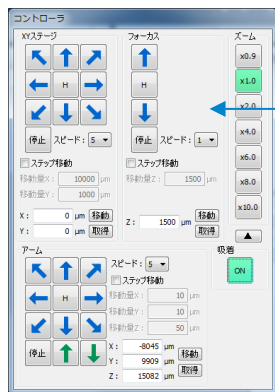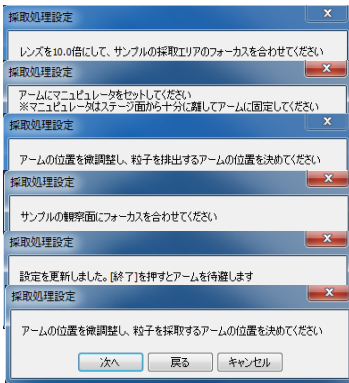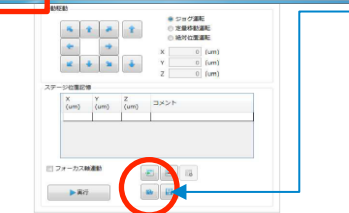Collection may be performed manually (confirmation of each particle before collection) or automatically.

■ Coordinate position link with Axis Pro software
Coordinates of selected particles can be saved in CSV file.
Axis Pro software can read the coordinates of the data on CSV file.

■ Complete system control in one software package
Control of microscope (focus & zoom magnification), electrically-driven stage, micromanipulator arm, and vacuum adsorption accessory in one package

MicroSupport

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Automated grain sorting and collection using imaging technology
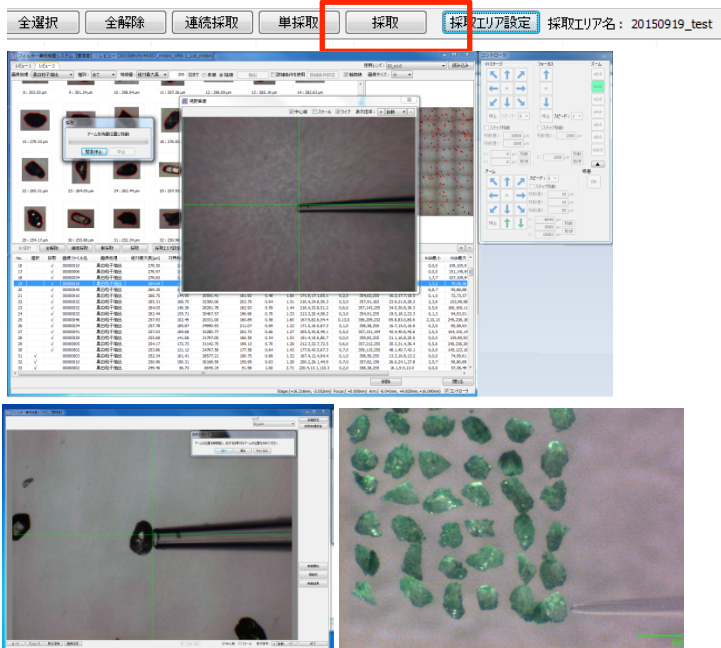### Reduces separation burden on researchers!

function

Image of collected particle

4. Automatic collection

■ **Automatic operation**
  Selected grains automatically separated by hitting "Collect" button. All operations may be observed on screen.

■ **Various sizes of micropipette nozzle**
20~100 μm size of micropipette nozzle available.

■ **Output functions**
Export of data to Microsoft Excel.
Saving and editing of data including map, particles

Specification

Microscope
◆Optical　1.4 ～15×
◆Electric zoom　zoom　11×
◆Working distance　45.6mm
◆Electric XY stage range: 100×50mm
◆Electric range of Z motion: 70mm
◆Illumination　LED reflection & transmission
◆Camera　0.8 million image pixel CCD camera

Function of collecting particle
◆Electric manipulator (single arm)
  Motion range: 20×20×30mm
◆Adsorption tool Micro pipette
  Inside diameter 20~100μm
◆Vacuum adsorption pump

Software
◆Image analysis/image abstraction /mapping/ repot
◆Stage/focus/zoom/manipulator/control of electromagnetic valve
◆Scale/Cross line
◆Axis Pro control software Ver.3

Control system
◆PC w/windows7
◆Controllers
◆22 in color monitor