PARTICLE SIZING AND DISTRIBUTION ANALYSIS

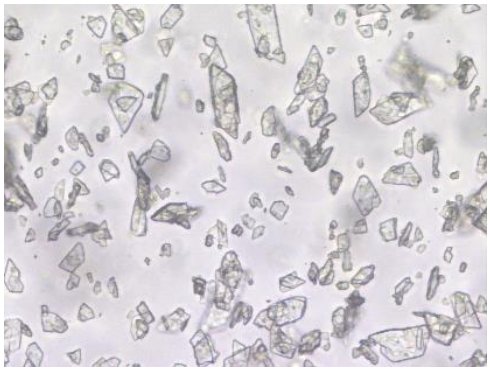


Figure 1: *The original image as captured at 500X.*

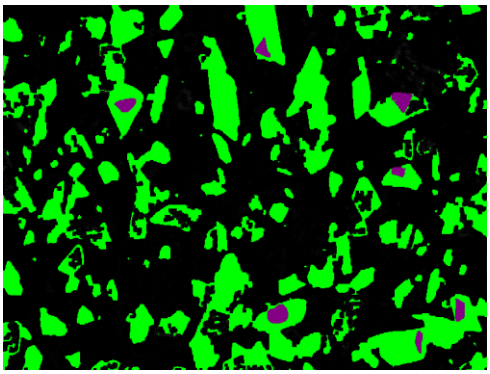


Figure 2: *Gray threshold in green bitplane following a top-hat binary operation on the original image.*

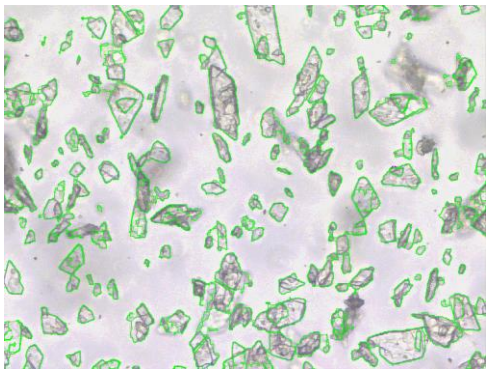


Figure 3: *Outline of detected particles overlaid against the original image.*

Sample Description

Pharmaceutical agent suspended in mineral oil.

Purpose of Analysis

Demonstrate the ability of the Clemex Vision image analysis system to evaluate size and shape of several particles within an image field, and to separate agglomerated particles prior to object measurement.

Procedure

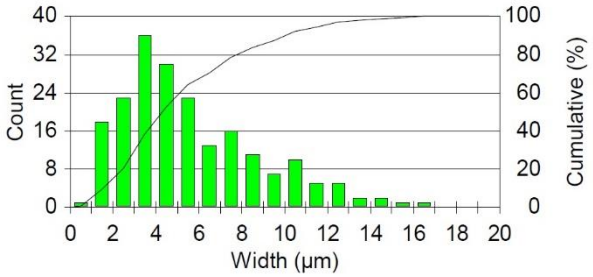
A Pause was entered in the automatic routine to manually draw in purple overlapping particles in the bitplant. A gray filter (Top Hat on Black) was applied to the image to increase contrast of the particle edges. Green color was then assigned to each particle using gray threshold. Measurements were done on complete particles.

Equipment

Image Analysis System:	Clemex Vision PE
Microscope:	Nikon Optiphot 100
Camera:	Sony DXC-390P
Magnification:	500X

Results

Width measurement was performed on the particles in each field.



Minimum	*0.8 µm*
Maximum	*16.3 µm*
Mean	*5.63 µm*
Std Dev.	*3.23 µm*

Figure 4: *Width distribution of particles.*