

UVEX UV microscopes for protein crystal detection

Updated 2019



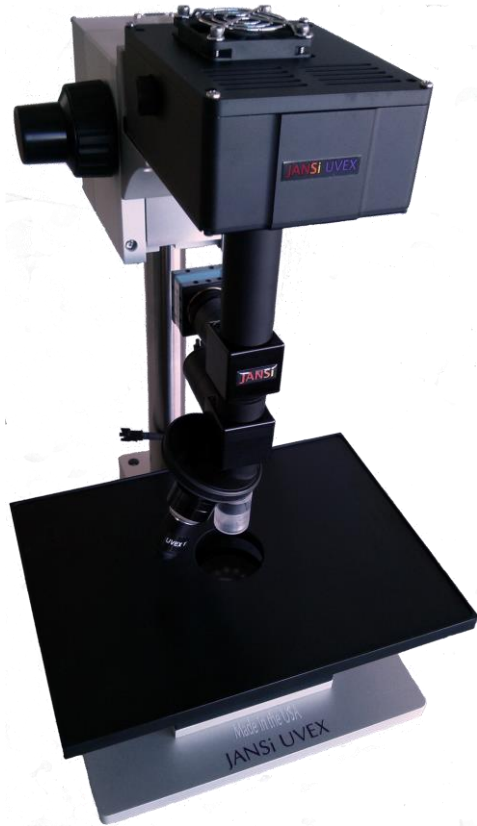
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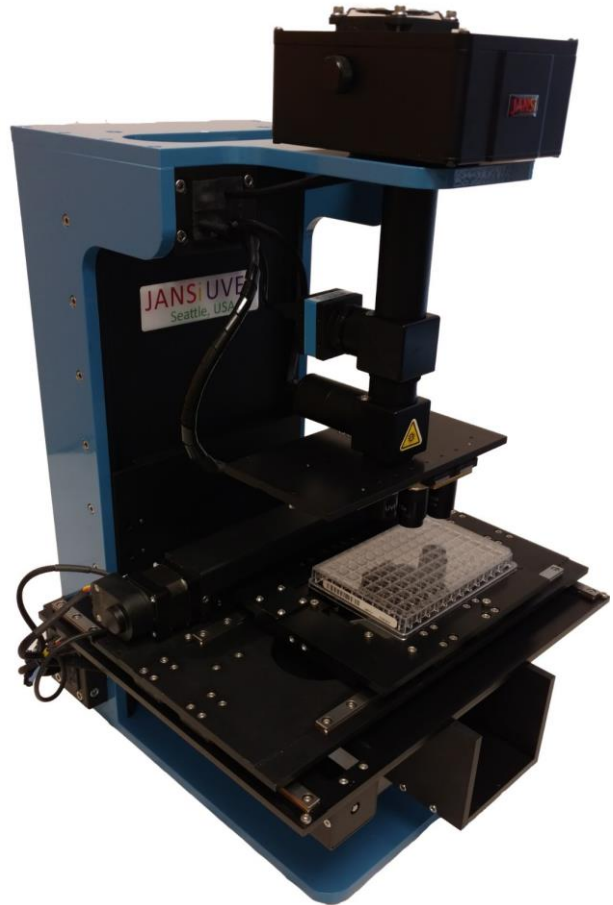




UVEX-m

Manual version:

- Tray table standard, manual XY stage optional; motorized Z optional; 5x and 15x objectives standard, 10x, 20x or 40x optional; UV absorbance optional; crossed polarizer optional
- Dimensions: 30 x 30 x 50 cm
- Weight: 12 kg, shipping weight 25 kg
- Power: 110 – 240 V 50Hz/60 Hz 60 kWh



UVEX-p

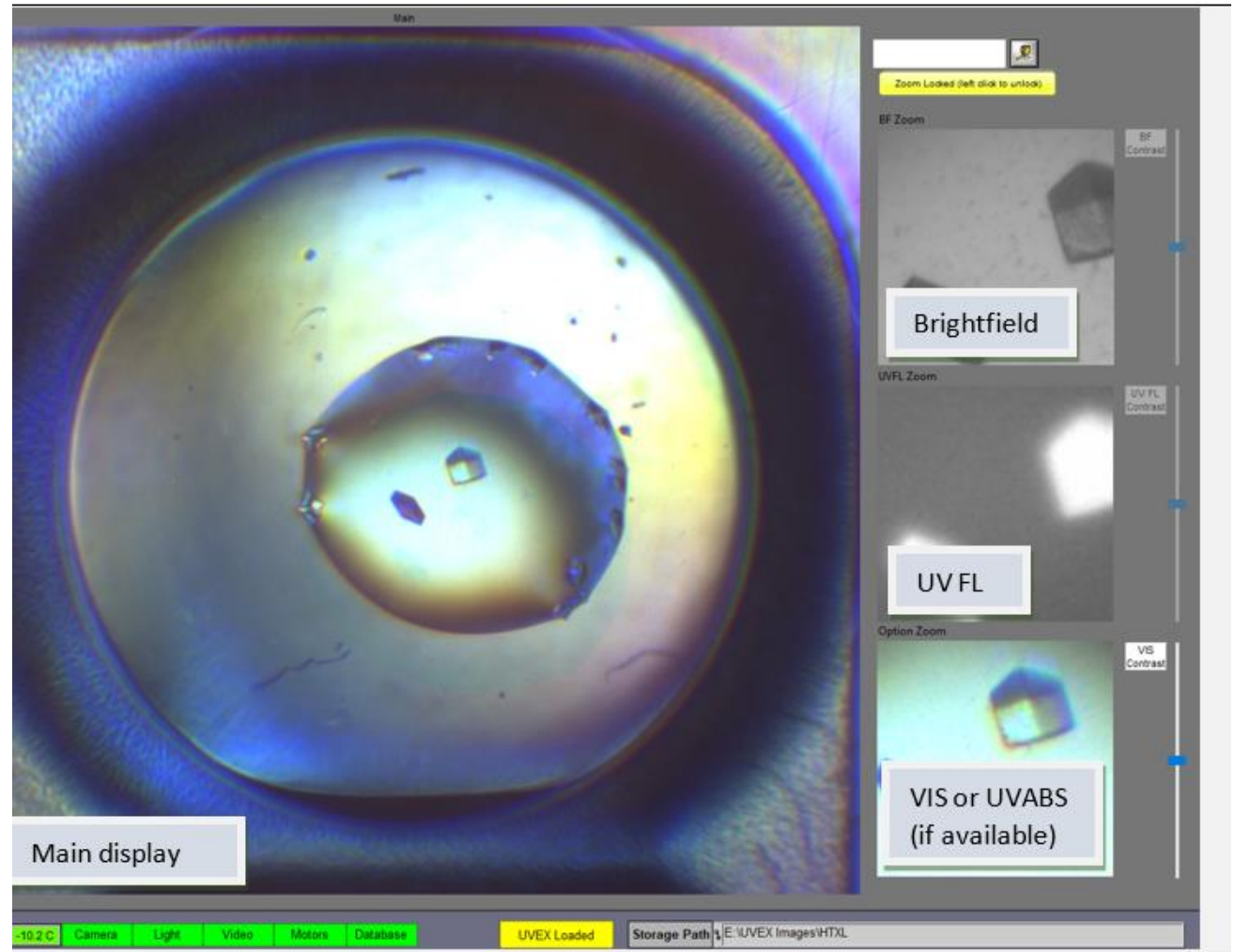
Automated version:

- Automatic scanning of SBS, Linbro plates; 5x, 10x (or 15x), 20x objectives standard, 40x objective optional; UV absorbance optional; color birefringence optional; visible fluorescence optional
- Dimensions: 30 x 35 x 50 cm
- Weight: 16 kg, shipping weight 30 kg
- Power: 110 – 240 V 50Hz/60 Hz 120 kWh

UVEX Well and Drop Display

Features:

- Main display = current image
- Side displays on the right show zoomed images of BF, UVFL or VIS/UVABS with contrast adjustments
- Moving cursor over main display shows zoomed side displays in windows on right
- Click on corresponding side display to view in main display position and measure feature sizes using system ruler



UVEX User Interface (UI) Controls

Features:

- Motion control with virtual joystick, objective lens selection, calibration, focus, and extended depth imaging (Z-slicing)
- Light control with exposure settings and live preview of well and drops
- Imaging control with image exposure times, image obtaining controls, image saving, and autoscanning
- Autocentering (drop find) and autofocus selections

The screenshot displays the UVEX User Interface (UI) with several control panels highlighted by colored boxes and labeled with arrows:

- Motion Control (Red Box):** This panel, located in the middle section, includes a virtual joystick for movement, a 'Manual On' button, 'Calibrate Plate' and 'Set Focus' buttons, 'Fusion OFF' button, and speed controls for XY and Z axes. It also shows coordinates for X (34.10 mm), Y (32.19 mm), and Z (24.73 mm).
- Light Control (Blue Box):** This panel, located in the bottom section, includes a 'Normal' dropdown menu, 'Center Lighting' and 'Edge Lighting' sliders, a 'Stop Preview' button, and an 'Active: UVFL' indicator.
- Imaging Control (Yellow Box):** This panel, located in the bottom section, includes exposure settings for Brightfield (0.10 s), UV FL (0.50 s), and VIS (0.20 s), along with 'Save BF', 'Save UV FL', and 'Save VIS' buttons. It also features an 'Auto Scan' button, 'Drop Find' and 'Autofocus' radio buttons, and a 'User' field set to 'devtest'.

Other visible UI elements include a 'Plate Manager' grid at the top, a 'CrystalDetect' status bar on the right, and a 'Log' section at the bottom right. The bottom of the interface shows 'Plate 20 Stacker 8' and an 'Unload Plate' button.

UVEX-ps

UVPS-256: 256 Standard or 344
Low-Profile SBS Plate Capacity



- Dimensions: (w)90 x (d)72 x (h)212 cm UVEX-ps256
- Weight: 350 kg
- Connectors: 24 V DC power, USB 2.0 and Ethernet
- Power: 110-240V 50 Hz/60 Hz 0.5 kWh
- Includes casters and adjustable (leveling) feet

UVPS-640: 640 Standard or 860
Low-Profile SBS Plate Capacity

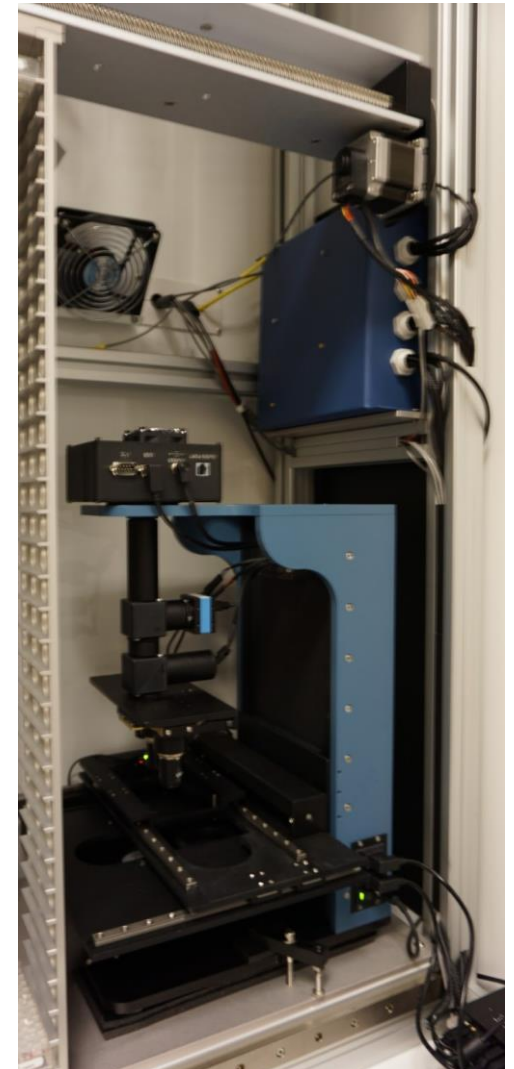
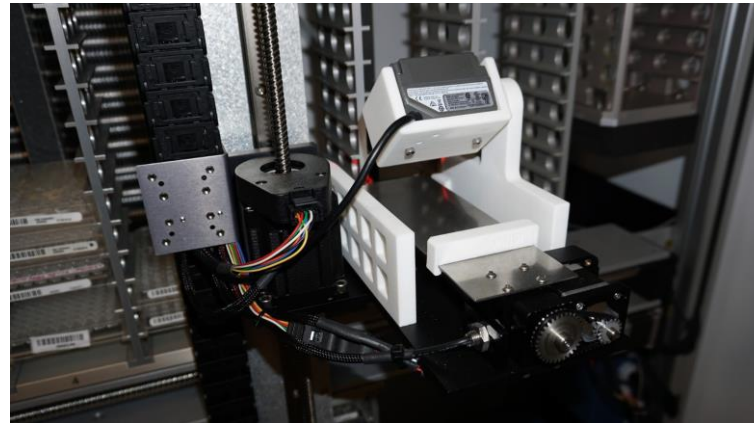


- Dimensions: (w)90 x (d)95 x (h)212 cm UVEX-ps600
- Weight: 450 kg
- Connectors: 24 V DC power, USB 2.0 and Ethernet
- Power: 110-240V 50 Hz/60 Hz 0.5 kWh
- Includes casters and adjustable (leveling) feet

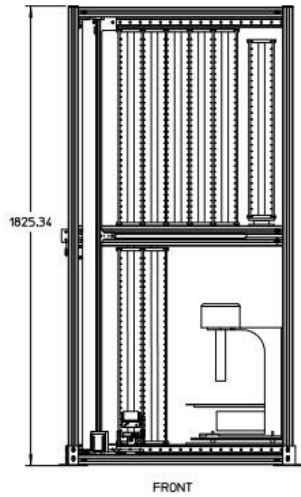
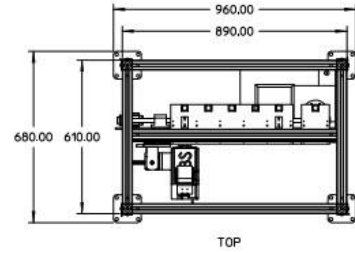
UVEX-ps

Features:

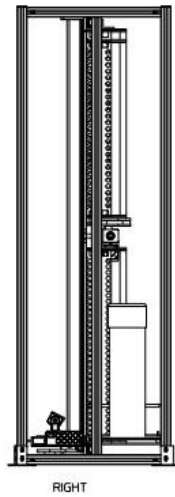
- 8 or 20 stackers for plate storage
- 32 standard or 43 low-profile SBS plate storage capacity per stacker; different capacity stackers may be combined
- UVEX-p microscope for automated imaging
- Low-vibration, smooth mechanism for moving plates between loading port, storage, and microscope
- IR cameras for monitoring hotel interior
- 4 °C to ambient temperature control with built-in vibration isolated compressor (ps 256 only)
- Casters for easy moving



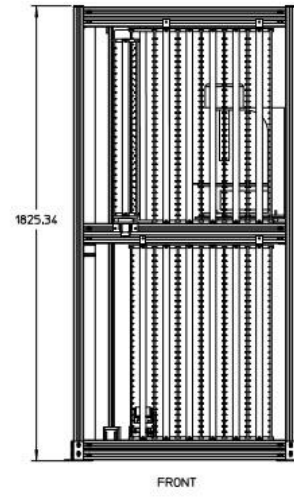
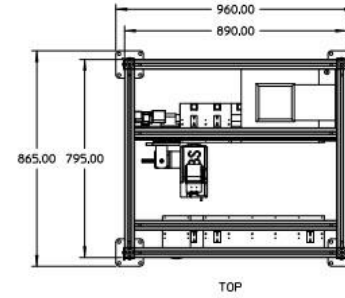
UVPS-256: 256 Standard or 344 Low-Profile SBS Plate Capacity



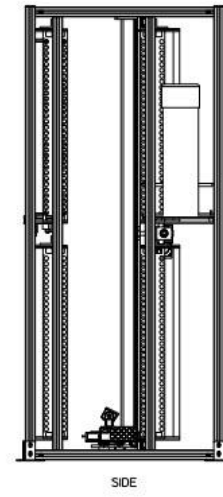
UVPS-256

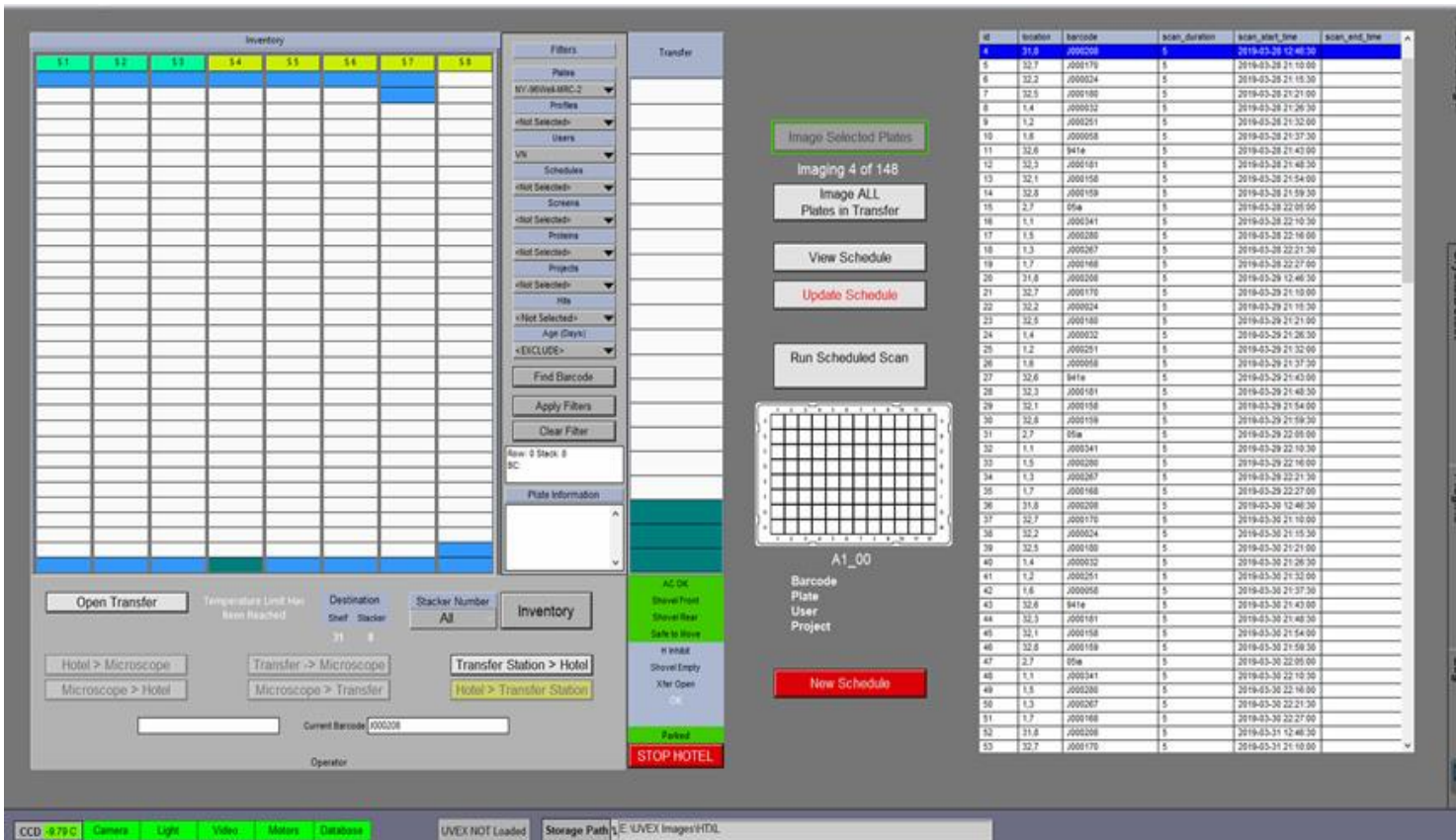


UVPS-640: 640 Standard or 860 Low-Profile SBS Plate Capacity



UVPS-600





UVEX-ps User Interface (UI) Display and Controls

Features:

- Hotel stacker inventory display
- Transfer stacker display
- Filter panel for locating plates by user, plate type, barcode, etc.
- Motion controls for moving plates between storage, transfer, and microscope
- Imaging controls for automated scanning of select plates or scanning plates according to a schedule
- Spreadsheet for viewing past, ongoing, and future scheduled scans

Home Plate View

localhost/index.php Administration Signout User: admin | 17/Sep/2019

Select from search options: Get experiments according to when they were imaged

Search: []

Rows per page: 100 Settings

Barcode	User Name	Protein	Created Date	Project ID	Plate Description	First Imaged	Last Imaged	Next Imaging Due	Highest Score	Comments
J000599	rachelaj	<none>	2019-09-03	<none>	96Well-Swissci-3drop-UNC	2019-09-03 12:54:28	2019-09-04 12:54:19	2019-09-04 12:53:30		PvIB w/iz PEG 8k10k
J000704	rachelaj	<none>	2019-09-03	<none>	96Well-Swissci-3drop-UNC	2019-09-03 14:17:46	2019-09-03 14:17:46	2019-09-04 13:21:00		PvIB MCSG-1
J000703	rachelaj	<none>	2019-09-03	<none>	96Well-Swissci-3drop-UNC	2019-09-03 14:01:10	2019-09-03 14:01:10	2019-09-04 13:15:30		PvIB MCSG-2
J000702	rachelaj	<none>	2019-09-03	<none>	96Well-Swissci-3drop-UNC	2019-09-03 13:44:32	2019-09-03 13:44:32	2019-09-04 13:10:00		PvIB JCSG+
J000701	rachelaj	<none>	2019-09-03	<none>	96Well-Swissci-3drop-UNC	2019-09-03 13:27:51	2019-09-03 13:27:51	2019-09-04 13:04:30		PvIB JCSGI
J000700	rachelaj	<none>	2019-09-03	<none>	96Well-Swissci-3drop-UNC	2019-09-03 13:11:10	2019-09-03 13:11:10	2019-09-04 12:59:00		PvIB JCSGII
J000590	redinbo	<none>	2019-04-25	<none>	96Well-Swissci-3drop-UNC	2019-04-25 15:33:33	2019-07-24 17:43:35			
J000591	redinbo	<none>	2019-04-25	<none>	96Well-Swissci-3drop-UNC	2019-04-25 15:00:56	2019-07-24 17:26:13			
J000558	redinbo	<none>	2019-04-25	<none>	96Well-Swissci-3drop-UNC	2019-04-25 14:44:10	2019-07-24 17:09:16			
J000594	redinbo	<none>	2019-04-25	<none>	96Well-Swissci-3drop-UNC	2019-04-25 14:27:36	2019-07-24 16:52:16			
J000595	redinbo	<none>	2019-04-25	<none>	96Well-Swissci-3drop-UNC	2019-04-25 14:11:12	2019-07-24 16:35:21			
J000560	redinbo	<none>	2019-04-25	<none>	96Well-Swissci-3drop-UNC	2019-04-25 13:54:44	2019-07-24 16:18:25			
J000561	redinbo	<none>	2019-04-25	<none>	96Well-Swissci-3drop-UNC	2019-04-25 13:38:10	2019-07-24 16:01:21			

Webview

Features:

- Browser-based; can be run from other computers in the network
- View entire plates or individual drop images
- Scoring system for assigning hits
- Overlay of Brightfield and UVFL images
- Measurement of drop feature sizes with ruler
- Plate profiles organized by date, barcode, username, crystallization screen, imaging date, project, protein, comments, and notes
- Powerful search function based on boolean operations of variables such as barcode, pH, screen conditions, etc.

JANSI Home >> Plate View Administration Signout User: admin | 31/Oct/2019

User ID: [] Project ID: Project Empty Barcode: test Plate: NY-Swissci-3well Protein: Comments: Screen: Edit

Open DropView Import Screen Generate Report Bulk Score Update

DropWell: D0 D1 10 11

Thumbnails: Mode bf uv Lens 5x 10x

Score Key: 0 2 3 4 5

View Condition Zoom Mode History

JANSI Home >> Drop View Administration Signout User: admin | 31/Oct/2019

Plate Information: Plate # J000062, Plate Description MRC-2well, Well_Drop: G04_00

Screen MD1-30-ECO Structure Screen 1 & 2 HT96 Eco Screen

Condition: 100 mM Bis-Tris Propane Hydrochloric acid, pH 6.5, 20 (%w/v) PEG 3350, 200 mM Sodium fluoride

Exposure: 1.00s Mode: UV Lens: 5x Image Date: 31-Oct-2019 01:33:11

Drop Information: 00 10

Views: Drops History G04_00 5xBF 5xUV Overlay

Image Settings: %UV, contrast, brightness, gamma

Legend:

0 Clear	5 Harvest
1 Amorphous	6 Optimize
2 Phase Separation	
3 Seed	
4 Loner	