

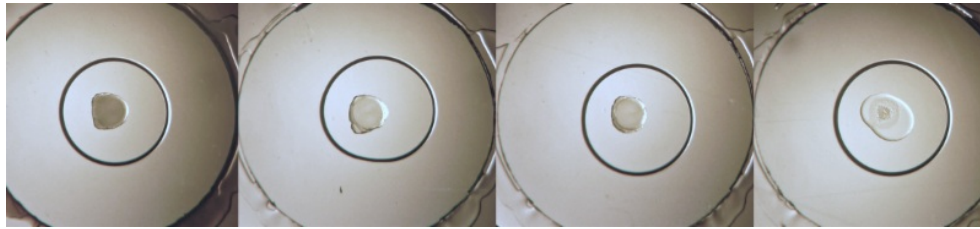
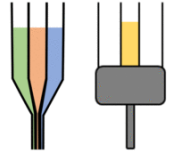
Automatic LCP optimization: 2d gradient experiments

Dear Crystallographer

Oryx8 LCP and **Oryx4 LCP** robots are now able to set up optimization experiments for lipidic cubic phase (LCP) using a 3-channel microtip.

The robot dispenses the LCP volume to a sandwich plate, cover slide or other crystallization plate. The LCP volume is immediately covered which a mixture of up to 3 ingredients dispensed from a 3-channel microtip as shown in the animation below.

Oryx 4 and 8 robots can also dispense **Microbatch under oil** and **Vapor diffusion optimization** experiments for soluble proteins. **Oryx8** can dispense more powerful 7-dimensional optimization experiments.



Oryx robot feature comparison table

Feature	OryxNano	Oryx4	Oryx8
Sitting drop:			
Single protein screening - 96 drops with 10.0 µl of protein (100 + 100 nl)	✓	✓	✓
Two protein screening	✓	✓	✓
Three protein screening	✓		✓
MMS (microseed matrix screening)	✓	✓	✓
Additive screening		✓	✓
Additive screening with MMS			✓
Hanging drop:			
Hanging drop - up to five drops dispensed per cover slide		✓	✓
Microbatch with automatic oiling:			
Additive experiments		✓	✓
MMS under oil (microseed matrix screening)		✓	✓
Optimization:			
Quick-and-easy 2-d grid, 3 ingredients	✓	✓	✓
Quick-and-easy 2-d grid, 4 ingredients	✓		✓
7-d Optimization grids			✓
Central composite, multi-variate experimental designs (7-channel)			✓
Rapid reservoir filling for optimization			✓
Tools:			
Microlytic crystal former filling		✓	✓
LCP upgrade:			
Compatible with LCP dispensing arm add-on		✓	✓

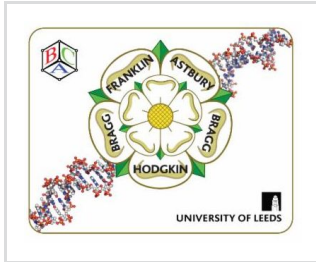


To request a quotation or demonstration please contact info@douglas.co.uk

For product support contact support@douglas.co.uk

Douglas Instruments will be at the following meetings:

Visit our booth and pick up a microseeding toolkit containing everything you need to do a [rMMS microseeding experiment](#) including a Hampton Research Seed Bead and Crystal Crusher.



BCA Spring Meeting, Leeds, UK

6 April - 9 April 2020



25th IUCr Congress, Prague, Czech Republic

22 August - 30 August 2020

Recent citations of Douglas Instruments products

The putative polysaccharide deacetylase Ba0331: cloning, expression, crystallization and structure determination

Andreou, A., Giastas, P., Arnaouteli, S., Tzanodaskalaki, M., Tzartos, S.J., Bethanis, K., Bouriotis, V. and Eliopoulos, E.E.,

Acta Cryst Section F: 75(4), pp.312-320.

The *S. Typhi* effector StoD is an E3/E4 ubiquitin ligase which binds K48-and K63-linked diubiquitin

McDowell, M.A., Byrne, A.M., Mylona, E., Johnson, R., Sagfors, A., Crepin, V.F., Lea, S. and Frankel, G.

Life science alliance 2.3 (2019) e201800272.

Douglas Instruments Privacy Policy

For more information about our privacy policy which includes updated information relating to the GDPR, click [here](#).



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Success in protein crystallization