

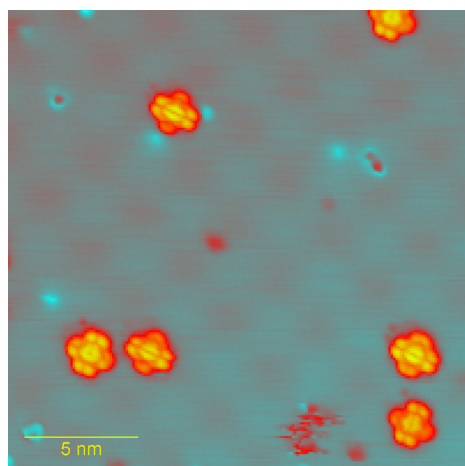
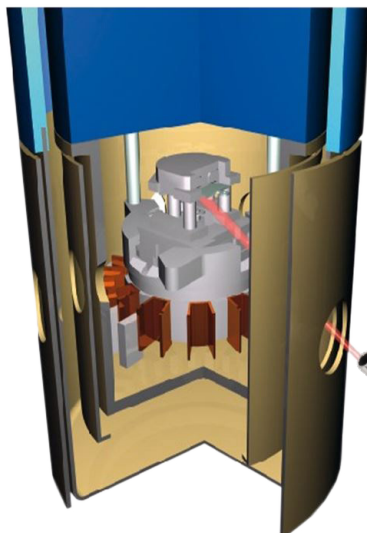
DEPOSITION OF DISCRETE ORGANIC MOLECULES WITH THE EFM 3

Experimental conditions

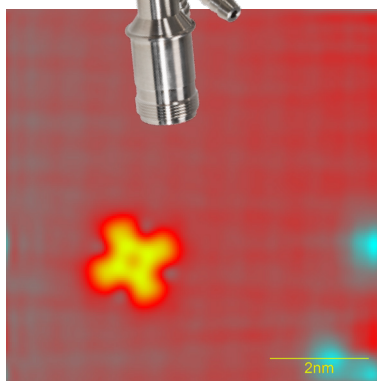
- in-situ evaporation of TOAT/CuPc into a LT-STM (Scienta Omicron)
- 185°C / 215°C crucible temperature on a cold (< 10 K) sample
- integrated flux regulation

Key-features:

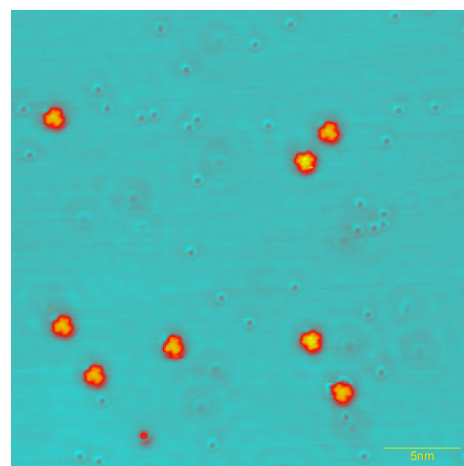
- precise temperature control via power regulation ($< 150^{\circ}$ C)
- ultra clean with proprietary cooling concept
- integral flux regulation



a) STM image of CuPc molecules (Copperphthalocyanine) on NaCl/Cu (100) @ 5 K.
Imaging parameters: 1 V, 5 pA.



b) STM image of individual CuPc molecules on NaCl/Cu (100) @ 5 K with 4-fold symmetry. Imaging parameters: 0.1 V, 10 pA



c) STM image of 1,5,9-trioxo-13-azatriangulene molecules (TOAT) on Cu (111) @ 5 K.
Imaging parameters: 1 V, 5 pA.

Data acquired by the group of Prof. I. Swart, Debye Institute for Nanomaterials Science, Utrecht University, the Netherlands.

EFM SURVEY TABLE

		EFM 2	EFM 3	EFM 3s	EFM 3i	EFM 3T	EFM 3Tm	EFM 3Ts	EFM 4	EFM 6	EFM H
typ. Working Distance	mm	50-200	50-200	50-200	50-200	93	93	93	50-200	50-200	>60
standard Insertion Depth	mm	210	210	210	210	161	161	161	210	220	140
optional Insertion Depths	mm	190-600	190-600	190-600	190-600	161-411	161-411	161-411	190-600	190-600	120-250
typ. Flange to Sample distance	mm	260-410	260-410	260-410	260-410	254	254	254	260-410	260-410	>200
Evap. Area Diameter	mm	4-30	4-30	4-30	4-30	8.5, 11, 15	8.5, 11, 15	8.5, 11, 15	10-50	> 50	±6° to ±15°
Mounting Flange	mm	DN 40 CF	DN 40 CF	DN 40 CF	DN 40 CF	DN 40 CF	DN 40 CF	DN 40 CF	DN 40 CF	DN 63 CF	DN 40 CF
Evap. from Wires		✓	✓	✓	✓	✓	✓	✓	✓	✓	-
max. Crucible Capacity	mm ³	700	700	700	250	250	250	250	700	9000	-
max. Crucible Diameter	mm	11	11	11	8	8	8	8	11	25	-
z-shift 25mm		✓	✓	✓	✓	✓ (3x)	✓ (3x)	✓ (3x)	✓	✓	-
z-shift 50mm		optional	optional	optional	optional	-	-	-	optional	-	-
Rear Loading		✓	✓	✓	✓	✓ (3x)	✓ (3x)	✓ (3x)	✓	-	-
Shutter		-	✓	✓	✓	✓(multiple)	✓(multiple)	✓(multiple)	✓	✓	optional
Shutter drive		-	optional	optional	optional	optional	✓	optional	optional	optional	optional
Flux Monitor		-	✓	✓	✓	✓ (3x)	✓ (3x)	✓ (3x)	✓	✓	-
Ion Suppressor		-	-	✓	✓	-	-	✓	on request	-	optional
Ion Optics (IBAD)		-	-	-	✓	-	-	-	-	-	-
Gas Inlet (IBAD)		-	-	-	✓	-	-	-	-	-	-
Nickel coating (of Cu parts)		on request	on request	on request	on request	on request	on request	on request	on request	on request	on request
Port aligner (±3°)		optional	optional	optional	optional	optional	optional	optional	optional	optional	optional
upgrade/retrofit options		3, 3s, 4, H	3s, 4, H	4, H	-	3Ts	3Ts	-	-	-	pumping bypass
recommended Power Supplies		EVC 100L	EVC 300	EVC 300s	EVC 300i	3x EVC 300	3x EVC 300	2x EVC 300 + 1x EVC 300s	EVC 300	EVC 1200	EVC 100L

CONTACTS

USA

SCIENTA OMICRON INC.
NORTH AMERICAN HEADQUARTERS
240 ST. PAUL STREET,
SUITE 301 DENVER,
CO 80206
UNITED STATES
PHONE: +1 720 350 5000
EMAIL: SALES-NA@SCIENTAOMICRON.COM

EUROPE

AND THE REST OF THE WORLD
(GENERAL CONTACT)

FOCUS GMBH
NEUKIRCHNER STR. 2
65510 HUENSTETTEN, GERMANY
PHONE.: +49 (0) 6126 - 4014 - 31
FAX: +49 (0) 6126 - 4014 - 10
E-MAIL: SALES@FOCUS-GMBH.COM
WEB: WWW.FOCUS-GMBH.COM

JAPAN

SCIENTA OMICRON INC.
TOKYO
TONAMI OMORI BUILDING6-16-4 MINAMI-OI
SHINAGAWA-KU
TOKYO 140-0013JAPAN
PHONE: +81-3-6404-9133
FAX: +81-3-6404-9134
E-MAIL: SALES-JP@SCIENTAOMICRON.COM

CHINA

SCIENTAOMICRON- BEIJING SALES & SERVICE OFFICE
87 WEST 3RD RING NORTH ROADBEIJING,
RM. 707, BUILDING A, IFEC
100089 HAIJIAN DISTRICT CHINA
PHONE: (86) 10-8882-4423
FAX: (86) 10-8882-4423-608
E-MAIL: SALES-CN@SCIENTAOMICRON.COM

KOREA

WOOSIN CRYOVAC CO., LTD.
RM601 DONGYOUNG-VENTURESTEL,
172 OJEON-DONG UIWANG-SI,
GYEONGGI-DO
KOREA
PHONE: +82 - 31 - 4575615
FAX: +82 - 31 - 4575629
EMAIL: WOOSIN@WOOSINENT.CO.KR
WEB: WWW.WOOSINENT.CO.KR

RUSSIA

OOO TERRALAB NTS
LENINSKIE GORY, 1 STR. 77
119992 MOSCOW
RUSSIA
PHONE: +7 495 939-1106
FAX: +7 495 939-1753
E-MAIL: INFO@TRLSYS.RU
WEB: WWW.TRLSYS.RU/ABOUT.SHTML

INDIA

MACK INTERNATIONAL
5/1A, GRANTS BUILDING,
ARTHUR BUNDER ROAD, COLABA,
MUMBAI 400 005, INDIA
PHONE: +91 22 22855261 / 22834962
FAX: +91 22 22852326
E-MAIL: SALES@MACK.IN
WEB: WWW.MACK.IN

FRANCE

AXESSTECH
750, CHEMIN DE BEAUPRÉ
13760 SAINT CANNAT
PHONE: +33 04 42 57 30 06
FAX: +33 04 42 50 68 46
E-MAIL: SALES@AXESSTECH.FR
WEB: WWW.AXESSTECH.FR

SINGAPORE

PORTSDOWN SCIENTIFIC PTE LTD
2 WHITCHURCH RD
SINGAPORE 138810
PHONE.: +65 93821401
E-MAIL: PORTSDOWN.SCI@GMAIL.COM
WEB: WWW.PORTSDOWNSCI.COM.SG