EXpressLO™ Aspirato™ Product Data Sheet

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The ***EXpressLO™ Aspirato™*** module uses a beveled hollow probe to pick and place (***Pick&Place™***) site specific FIB or other specimens onto ***EXpressLO™*** grids for S/TEM or other materials characterization. ***Aspirato™*** uses well known vacuum micropipetting methods [1-3] applied to ***EXpressLO™*** lift out methods and manipulation of FIB milled free specimens [4-5].

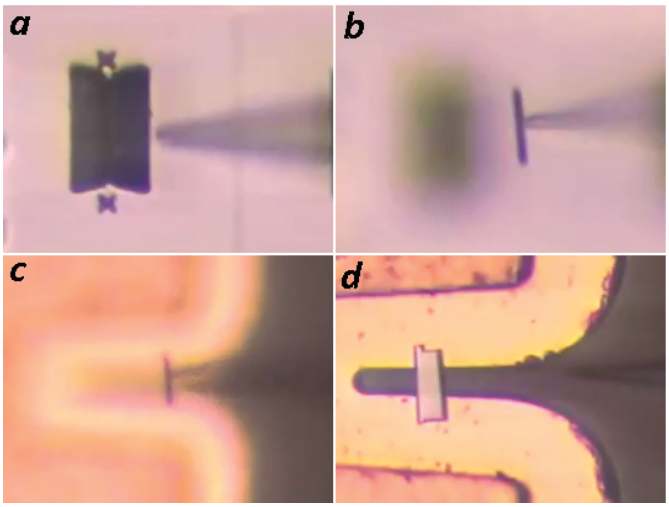
Advantages and Benefits of EXpressLO™ Aspirato™

- ***EXpressLO™ Aspirato™*** module is easily added to older ***EXpressLO™*** systems.
- Patented grid design and method - no carbon film needed.
- No expensive FIB time needed for lift out.
- Fast, easy to master, versatile, reproducible.
- Re-process EXLO specimens.
- Routine backside milling.
- Multi-user facility friendly.
- Full systems and consumables available.

EXpressLO™ Aspirato™ Module Features

- Probe holder and computerized vacuum/air controller with vacuum pump.
- 100 hollow glass probes
- ***EXpressLO™*** grids: (100) 3 mm Cu half grids
- ***Pick&Place™*** holder kit
- Optional glass probe puller
- Optional glass probe beveller kit

EXpressLO™ Aspirato™ *controller and UI.*



Pick&Place™ *of a FIB milled free specimen using the* ***EXpressLO™ Aspirato™*** *module. (a) Vacuum turned on as hollow beveled probe approaches FIB milled free specimen. (b) Specimen pick with probe via vacuum suction. (c) Vacuum turned off allowing only adhesion forces to hold specimen. (d) Probe slides through open* ***EXpressLO™*** *grid slot with placed specimen in backside orientation.*

System Requirements

-110 VAC power.
-100 psi air or nitrogen (optional)

References:

[1] K.T. Brown and D.G. Fleming, Advanced Micropipette Techniques for Cell Physiology, John Wiley & Sons Ltd. (1986).
[2] W. Zesch, M. Brunner, A. Weber, IEEE International Conference on Robotics and Automation, (1997) Vol. 2, p. 1761-1766.
[3] D. Petrovic et al., IEEE Proceeding of Microelectronics, (2002) Vol. 1, p. 1-4.
[4] see http://www.expresslo.com/publications.html for additional references.
[5] www.YouTube.com/LAGiannuzz/videos