

**ANALYTICAL SERVICES** 

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...because a µg of understanding is worth a ton of guessing

SURFACE ANALYSIS	\$ 350/hr	ION SPUTTER CALIBRATION STANDARDS (please check for availability)				
Auger Electron Spectroscopy (JEOL Jamp 7800), 50nm		ISC-SIO2-500 SiO2 (500 ± 25Å) on 4" Si wafer				\$475
resolution, w/SEM function and X-ray Analysis, Depth		ISC-SIO2-1029 SiO2 (1006 ± 10Å) on 4" Si wafer				\$975
profiles collected using rotational depth profiling. Digital						\$330
imaging.		NiCr-3 12 layers Cr(60nm/Ni-60nm on Silicon (1 X 3 c	:m)			\$660
		ISC-Si3N4-1000 Si3N4 (1000Å) on Si (1cmX3cm)				\$330
SCANNING ELECTRON MICROSCOPY JEOL- 840	\$ 300/hr					
with EDS x-ray, digital imaging (computer image files		ULTRA-HIGH VACUUM ELEMENTAL STANDARDS Mour			Mount only	Mount +
sent by email or disk- no charge!).						standards
		UHV-EL-6	Mount for 6 e	elements	\$145	\$685
ELECTRON MICROPROBE (fully automated (4)	\$ 350/hr	UHV-EL-9	Mount for 9 elements Mount for12 elements Mount for 15 elements		\$185	\$995
wavelength & 1 energy-dispersive x-ray spectrometer with		UHV-EL-12			\$225	\$1,305
detectabilities to 10ppm. SEM resolution 70Å.		UHV-EL-15			\$260	\$1,610
Digital images & data (image files & report sent by email.		UHV-EL-18	Mount for 18	elements	\$290	\$1,910
		UHV-EL-37	Mount for 37	elements	\$400	\$4,100
LABORATORY SERVICES:		(note: the UHV-EL-37 with standards is shipped under vacuum in a small Vacu-Storr)				
Metallography- Custom sample preparation, mounting,	\$ 200/hr	UHV-EL-37PI PHI Mount adapters				\$330
sections, polishing, plating thickness preparation, etc.		UHV-EL-37VG for VG Instruments				\$330
Optical Microscopy- Bench & Stereo.	\$ 200/hr	UHV-EL-37Stub (Amray, FEI, LEO, Zeiss)				\$110
Profilometry- Sloan Dektak 3030 for surface roughness,	\$ 75/scan	UHV-EL-40RE Replacement elements (your choice of	on list except those below)			\$110
step heights, etc.	(min. 3)	UHV-EL-Diamond (1mm) crystal, polished.				\$155
Microhardness- Vickers & Knoop indentation	\$ 200/hr	UHV-EL-SRM481 (5) NIST Cu:Ag wires				\$220
·		UHV-EL-SRM482 (5) NIST Cu:Au wires				\$220
		UHV-EL-Al-Cu X-ray Calibration. std. (NIST traceable	)			\$155
PRODUCTS		JN-1 SEM demo standards (not UHV compatible)				\$640
VAC-U-STORR (VUS) Desiccators						
VUS-J-S (Glass)	\$140	MAGNIFICATION REFERENCE STANDARDS				
VUS-J-M (Glass)	\$250		MR-1	MRS-3	MRS-4	MRS-6
VUS-J-L (Glass)	\$300	MRS-#NT (Not traceable)	n/a	\$490	\$990	\$3,000
VUS-J-XL	\$425	MRS-#XY (XY traceable)	n/a	\$1,500	\$2,100	\$4,900
VUS-SS-4.5 4" Conflat flange, no top	POR	MRS-#XYZ (XYZ traceable)	n/a	\$1,800	\$2,400	n/a
VUS-SS-4.63 4 5/8" Conflat flange, no top	POR	MR-1X (X traceable only - 100µm X 150 mm)	\$1,200	n/a	n/a	n/a
VUS-SS-6 6" Conflat flange, no top	POR	Cleaning only (best effort basis)	\$200	\$200	\$200	\$200
VUS-SS-8 8" Conflat flange, no top	POR	RECERTIFICATION Micro Ruler	\$600	n/a	n/a	n/a
call for prices on covers, gaskets & misc. parts.		RECERTIFICATION & CLEANING X and Y axes	n/a	\$1,000	\$1,300	\$2,900
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		No return authorization necessary. Please send			Ψ.,σσσ	11/4
	RETAINERS & miscellaneous					
		MRS-SEM/R Retainer (1" OD X 1/8")	n/a	\$100	\$100	n/a
		MRS-OM/R (optical microscope adapter 1"X2")	n/a	\$100	\$100	n/a
		MRS-Glass (1" X 3" glass slide mounting)	n/a	\$100	\$100	n/a
		MRS-3 or 4 (for TEM, etc.) 3mmX 0.25mm	n/a	\$350	\$350	n/a
		MRS-pin (used with the SEM/R - 1/8" pin)	n/a	\$100	\$100	n/a
		MRS-6-pin	n/a	n/a	n/a	\$250
		v p	11/4	11/4	1114	Ψ200

Magnification standards traceability: accredited to ISO-17025 (ACLASS registrar)

**PRODUCTS** 

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Payment is net 30 days subject to credit approval. VISA, Master Card and American Express accepted Late fee of 1.5%/month for delinquent accounts. Shipping: FOB Topsfield, Ma. Delivery: Stock to 30 days

Foreign delivery orders must be prepaid. Payment to be made against a U.S. bank by check in U.S. \$, by Letter of Credit, wire, or credit card.

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Price List Effective: January 2014

OP 3.0-8 Rev. J