



**OREGON STATE UNIVERSITY
REQUEST FOR QUOTE (RFQ)**

		ISSUE DATE:	November 3, 2014			
RFQ #	DL173444Q		RFQ DUE DATE:	November 6, 2014, 3 PM		
DELIVER TO:			REQUESTED BY / RETURN QUOTE TO:			
DEPARTMENT:	Electrical Engr. & Computer Sci.		NAME:	Debora Lauer		
ADDRESS:	Oregon State University		E-MAIL:	Debora.Lauer@oregonstate.edu		
CITY, STATE ZIP:	Corvallis, OR 97331		TELEPHONE:	541-737-7343		
REQUIRED DELIVERY DATE:	Dec. 31, 2014		FAX:	541-737-2170		
ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL PRICE	
1	Blue Spin Low Field-Zero Field Electrically Detected Magnetic Resonance Spectrometer (including Magnet, Power Supply, Field Controller and Frequency System	1	Ea			
	BRAND SPECIFIC - NO SUBSTITUTIONS					
	SHIPPING COSTS MUST BE INCLUDED					
Delivery is f.o.b. destination, prepaid and allowed. Shipping, freight and handling must be included in quoted prices. Additional costs for such are disallowed.				TOTAL		
DELIVERY TIME AFTER RECEIPT OF ORDER:			PRICES VALID THROUGH:			
SPECIAL INSTRUCTIONS:			VENDOR INFORMATION:			
1. Unless otherwise specified, all items quoted are to be new, unused and not remanufactured in any way. 2. Brand names are for the purpose of describing and establishing the characteristics desired and are not intended to limit or restrict competition. Quoters may submit quotes for substantially equivalent products unless the RFQ provides that a specific brand is necessary because of compatibility requirements, etc. All such brand substitutions shall be subject to approval by OSU. 3. Quoters must clearly identify all products quoted. Brand name and model or number must be shown. 4. Only documents issued as addenda by OSU serve to change the RFQ in any way. 5. OSU reserves the right to make the award by item, partial or whole lots, groups of items or entire quote, whichever is in the best interest of OSU. 6. OSU may reject any Quote not in compliance with the RFQ, attachments, and addenda, or if it is in the best interest of OSU.			COMPANY:			
			ADDRESS:			
			CITY, STATE, ZIP:			
			CONTACT NAME:			
			E-MAIL:			
			TELEPHONE:			
FAX:						
				VENDOR SIGNATURE:		
				<i>By signature below the undersigned certifies that they are authorized to act on behalf of the quoter and will comply with all aspects of the quote herein.</i>		
SIGNATURE:						
NAME/TITLE:						

This procurement is subject to the indicated Oregon State University Standard Terms and Conditions for: Goods Services Purchase Order Construction Software. The indicated terms and conditions may be viewed at <http://pacs.oregonstate.edu/terms-and-conditions>



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Blue Spin Low-Field EDMR Spectrometer Specifications

Model: BS-LF250

Version: 1.0

(Naming convention BS = blue spin, LF = low-field, 250 = resonant frequency of spectrometer)

Components

1. Tablet/laptop
 - Windows 8 platform
 - Installed Blue Spin software
 - Installed NI DAQ 6351 drivers
2. Installed Software
 - Standalone executable designed in Labview 2014
 - Digital lock-in amplification
 - Up to 25kHz magnetic field modulation
 - Two independent demodulators capable of higher order harmonic detection
 - Complete frequency, phase, and time constant control
 - Digital electromagnet field control
 - Use proportional-integral (PI) digital field/current control
 - 14 bit resolution provides 16mG/level
 - Signal processing suite: signal averaging, data logging, and data post-processing.
3. Preamplifier
 - Frontend current-to-voltage converter
 - selectable course gain of 10k, 100k, 1M, 10M, 100M
 - Optional high-pass filtering stage
 - cutoff frequency of 100Hz
 - Additional gain stage
 - selectable fine gain of 1, 2, 5, 10, 20
 - Backend low-pass filtering stage
 - fixed cutoff frequency of 25kHz
 - 2 independent +/-12V biasing supplies
 - 1 auxiliary channel for external biasing
4. Sample tees
 - Set of 50 printed circuit board (PCB) used for mounting devices
 - Each PCB has 4 leads made of gold plating which can be wire bonded to
5. Electronics Enclosure
 - Power supply: +/-24 Volt, +/-2.5 Amp linearly regulated
 - NI DAQ6351: 16 bit, 1MHz input and output sampling
 - Magnet and modulation control electronics board
 - RF oscillator: 250MHz with 16dBm output power
 - Thermal cooling fans
6. Electromagnet
 - 4 sets Helmholtz coils providing a uniform DC field over a range of up to +/- 135 Gauss
 - 1 set of Helmholtz coils providing an AC modulating field up to 10 G
 - Capable of +/- 135 Gauss. Can be increased with upgrade in model.
 - Aluminum construction provides excellent heat dissipation.
7. 3D printed Housing
 - Houses PCB in which sample is mounted
 - Houses RF tuning/matching circuit
 - Houses Hall probe to measure the DC magnetic field