Clear Fields

UCF | Procurement Services

SOLE SOURCE CERTIFICATE AND POSTING NOTICE

(Greater than $150,000)

A sole source procurement is when you make a request to purchase product(s) and/or service(s) without competition when competition is otherwise required. This means that product/service is unique and that the supplier is the only supplier that can provide the product or service. In accordance with the authority granted under applicable Florida law and UCF Regulation 7.130, the following documentation is submitted in support of this request.

The purchase requisition can be entered into Workday at any point during the process set forth herein; however, doing so does not ensure approval of the sole source.

The completed sole source must be approved in the following order. **Please be sure to obtain all required signatures before submitting the form to Procurement Services.**

- PI/Researcher/Director/Chair
- President/Vice President/Dean
- Procurement Specialist
- Procurement Services Manager or Associate Director
- Assistant Vice President for Tax, Payables & Procurement, who will review and provide a recommendation to approve or disapprove the sole source to:
- Chief Financial Officer, who will either directly approve or disapprove the sole source, or forward it to the Provost and Executive Vice President for goods/services related to academia for input prior to making the final decision.

Contingent upon the approval of all the officers/individuals listed, the sole source shall be posted on the UCF Procurement Services website for seventy-two (72) hours. Upon expiration of said posting period, Procurement Services will process a purchase order upon receipt of the requisition.

Once the completed sole source is received, Procurement Services reviews the documentation provided and determines whether the sole source is valid or if there are additional suppliers that may be able to provide the requested product or service. The sole source review and approval process varies based on the nature of the product/service being requested and the information provided in the requestor's justification, among other factors, so please keep this in mind when submitting the form.

The usual bidding process shall be conducted if sole source approval is not granted.

PART I: DEPARTMENT AND SUPPLIER INFORMATION

Department Name: Physics / Nanoscience Technology

Contact & Phone: Dr Tetard / 407-882-0128

Purchase Request No.: _____

Product/Service Cost: Vista One IR PiFM System (Q) (DayLight, No Hole)/$ 415,957.50

x One Time Purchase __Term Contract: _____

__ Multiple Purchases __ Duration: _____

Company Name: Molecular Vista, Inc.

Email: info@molecularvista.com

Contact Person: Sunny Assaf

Title: Salesperson

Product and/or Service: Vista One IR PiFM System (Q) (DayLight, No Hole)

PART II: SOLE SOURCE JUSTIFICATION (see pages 4-5)

Only justifications submitted on this form and in the below format will be reviewed for approval. All of the listed points MUST be fully answered on the following pages and any additional attached pages as needed. Failure to submit justification as outlined in the format below will result in the form being returned without review.

PART III: SOLE SOURCE CERTIFICATIONS

A. In my professional opinion, this is the only product or service that can reasonably meet my requirement(s)/specification(s), and this is the only supplier who can provide the product or service. I further certify that the information contained herein is true and correct to the best of my knowledge and belief and would withstand any audit or supplier protest.

B. I, the undersigned, certify that I and/or the user do not have a financial interest in the above named supplier or contractor, and that I am unaware of any conflict of interest related to this purchase.

Laurene Tetard Digitally signed by Laurene Tetard Date: 2025.04.01 08:39:24 -04'00'	Laurene Tetard	4/1/2025
Signature	**Printed Name and Title (PI/Researcher/Director/Chair)**	**Date**
Lei Zhai Digitally signed by Lei Zhai Date: 2025.06.13 11:53:54 -04'00'	Lei Zhai	6/13/2025
Signature	**Printed Name and Title (President/Vice President/Dean)** (Delegations not allowed; emails from absent approvers are acceptable)	**Date**

I, the undersigned, hereby concur with the above justification and support a sole source approval for the above product(s) and/or service(s). Approvals may be documented and supported via email.

See below email approval		
Signature	**Printed Name and Title (Procurement Specialist)**	**Date**
See below email approval		
Signature	**Printed Name and Title (Procurement Services Manager or Associate Director)**	**Date**
See below email approval		
Signature	**Printed Name and Title (Asst. Vice President for Tax, Payables & Procurement)**	**Date**

See below email approval		
Signature	**Printed Name and Title (Chief Financial Officer)**	**Date**

POSTING NOTICE

6/30/2025 /3:00 pm EST	7/3/2025 /3:00pm EST	2514	Trinh Nguyen
Date/Time Posted	**Posting End Date**	**UCF Control No.**	**Procurement Specialist**

SOLE SOURCE JUSTIFICATION

Please answer the questions below and attach additional documentation if needed.

1. Describe the product(s) and/or service(s) and anticipated use thereof in layman's language.

   The product is an research-grade atomic force microscope equipped with infrared spectroscopy to study physical and chemical properties of materials at the nanoscale.

2. Describe the required specifications or requirements and why are they essential to the accomplishment of your work.

   The project requires to work under controlled environment, which can be achieved with the vacuum chamber available with this system. High-performance feedback and closed-loop sample scanner are important for the project, to ensure high resolution imaging and low drift. The modularity of the system for research developments is also important to develop new capabilities.

   Provide the names of other suppliers, products and/or services that you have investigated and explain why they do not meet the required specifications or requirements. It may be helpful to present your information in a table like the one below.

Required Specifications	Supplier 1	Supplier 2	Supplier 3	Supplier 4
	Y/N	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N	Y/N

   Bruker AFM-IR and Neaspec are the only two other vendors proposing AFM coupled with infrared. They do not offer the option of working under inert atmosphere or under vacuum. Bruker offers the photothermal AFM-IR technology that is needed for the project, but not neaspec. Bruker's systems are not modular which limits the development that can be done.

3. State in detail why only this and no other product(s)/service(s) will satisfy the department's requirements. Description may include unique features, compatibility, specifications, availability, delivery time frame etc. (For example, please list the features or special conditions that are unique and only available from one supplier. Note: Price is not a valid reason.)

   1. Metal enclosure for vacuum/inert-atmosphere operation
   2. High performance closed-loop sample scanner
   3. Dual-z feedback for best near-field nanoscopywithout sacrificing maximum z-scan range
   4. Excellent thermal stability –AFM head and sample scanner fabricated out of Invar with temperature controlled acoustic enclosure. Heating stages available as options.
   5. Patented PiFM for the highest spatial resolution
   6. Available optical ports for adding custom optical techniques
   7. Non-contact bulk-sensitive (~ 500 nm) and surface-sensitive (top ~ 20 nm) modes

4. Are there resellers or distributors? If yes, please list names and contact information.

The order is placed directly to Molecular Vista

5. Will this purchase obligate UCF to this vendor for future purchases such as maintenance, licensing, or continuing need? ___ Yes _x_ No

If yes, please provide details regarding future obligations and/or needs to include number of years and total spending amount of obligations:

there is no maintenance contract with this instrument, we will work with the company until the warranty expires, and they will provide information as needed after this. Repairs will be done as needed, most often by the PI.

6. What efforts have been made to obtain the best pricing available? Please provide an explanation to support the belief that the price is fair and reasonable.

The Bruker system is price over 500k (up to 800k or more), and does not offer the environment control and modular design

The price of 420k was negociated to fit the budget. It is below market price.

Outlook

Re: C0130931:Vista One IR PiFM System

From Gerald Hector <Gerald.Hector@ucf.edu>
Date Sun 6/29/2025 7:19 PM
To Joel Levenson <Joel.Levenson@ucf.edu>; Brian Sargent <Brian.Sargent@ucf.edu>
Cc Trinh Nguyen <Trinh.Nguyen@ucf.edu>

Joel:

I support this sole source request.

Regards,

Gerald L. Hector, CPA
Senior Vice President
Administration and Finance
University of Central Florida
4635 Andromeda Loop N
MH384
Orlando, FL 32816
Tel: (407) 823-1063
Email: gerald.hector@ucf.edu

From: Joel Levenson <Joel.Levenson@ucf.edu>
Sent: Friday, June 27, 2025 2:17 PM
To: Gerald Hector <Gerald.Hector@ucf.edu>; Brian Sargent <Brian.Sargent@ucf.edu>
Cc: Trinh Nguyen <Trinh.Nguyen@ucf.edu>
Subject: RE: C0130931:Vista One IR PiFM System

Gerald,

I support this sole source as well. The PI's research into alternative suppliers show that similar equipment do not meet the needs of the research. Additionally, two other sole sources have been awarded to this supplier for this piece of equipment.

Once you have a moment to review, if you approve, reply all and indicate as such. If you have additional questions, let me know.

From: Brian Sargent <Brian.Sargent@ucf.edu>
Sent: Thursday, June 26, 2025 10:36 AM
To: Joel Levenson <Joel.Levenson@ucf.edu>
Cc: Trinh Nguyen <Trinh.Nguyen@ucf.edu>
Subject: FW: C0130931:Vista One IR PiFM System

Hi Joel,

I also support this sole source to Molecular Vista for a specialized microscope. Molecular is the only company who can meet all the departments requirements, noted below, and a search of GovSpend identified two sole sources approved for the same equipment.

- The Equipment from Molecular Vista has an enclosed vacuum chamber available that's not offered by the other systems. This feature is required to work under controlled environment.
- PiFM (Non-contact AFM-IR) is required for the highest spatial resolution and only the equipment from Molecular Vista can offer this. They are the inventors of the PiFM that's patented.
- The equipment from Molecular Vista is the only one that has dual-z feedback for the best near-field nanoscopic without sacrificing maximum z-scan range.
- There are no resellers/distributors for this customized laser system.

Please approve/disapprove and let me know if you have any questions.

Regards,
Brian

From: Trinh Nguyen <Trinh.Nguyen@ucf.edu>
Sent: Wednesday, June 25, 2025 1:08 PM

To: Brian Sargent <Brian.Sargent@ucf.edu>
Subject: C0130931:Vista One IR PiFM System

Hi Brian,
Hope all is well. I have reviewed the attached sole source and can support it for the following reasons. Can you please also review to see if you agree or not?

Vendor: Molecular Vista Inc.
Product: Vista One IR PiFM System (Q) (DayLight, No Hole)
Total Amount: $415,957.50
Dept: Physics / Nanoscience Technology

Requirement: The department wants to buy a research-grade atomic force microscope equipped with infrared spectroscopy to study physical and chemical properties of materials at the nanoscale. The required specifications are listed below.

Research Conducted: The PI confirmed that to the best of his knowledge, these are the three suppliers out in the marketplace that can provide comparable products but only the one from Molecular Vista can meet all specs requirements.

Specifications Requirements	Molecular Vista	Bruker	Neaspec
Metal enclosure for vacuum/inert-atmosphere operation	Yes	No	No
High performance closed-loop sample scanner	Yes	Yes	Yes
Dual-z feedback for best near-field nanoscopic without sacrificing maximum z-scan range	Yes	No	No
Excellent thermal stability –AFM head and sample scanner fabricated out of Invar with temperature controlled acoustic enclosure. Heating stages available as options.	Yes	Yes - With Different Technology	Yes - With Different Technology
Patented PiFM for the highest spatial resolution	Yes - They are the inventor of the PiFM (Non-contact AFM-IR)	No - They use photothermal AFM-IR (Contact and non contact)	No- They Use s-SNOM technology for Tapping AFM-IR
Available optical ports for adding custom optical techniques	Yes - Have more freedom for add-on compared to the rest	Yes	Yes
Non-contact bulk-sensitive (~ 500 nm) and surface-sensitive (top ~ 20 nm) modes	Yes	No- non-contact bulk-sensitive! Yes - Surface Sensitive	No -Noncontact bulk sensitive (They use Tapping) Partial Yes - Surface Sensitive (Sample dependent)

- The Equipment from Molecular Vista has an enclosed vacuum chamber available that's not offered by the other systems. This feature is required to work under controlled environment.
- PiFM (Non-contact AFM-IR) is required for the highest spatial resolution and only the equipment from Molecular Vista can offer this. They are the inventors of the PiFM that's patented.
- The equipment from Molecular Vista is the only one that has dual-z feedback for the best near-field nanoscopic without sacrificing maximum z-scan range.
- There are no resellers/distributors for this customized laser system.

Price is fair and reasonable: The price is considered fair and reasonable given that Molecular Vista is the only supplier that can offer equipment to satisfy the above-mentioned specifications. The price of 420K was negotiated to fit the budget and it's below the market price. The Bruker system is priced over 500K (up to 800K or more) but can't offer the environment control vacuum chamber and the modular design.

GovSpend:

There are two sole source notices for Molecular Vista from the National Institute of Standards and Technology (NIST) in May 2024 and from the University of Illinois in August of 2021 for the same equipment.

Description

Original
Summary

Background

The National Institute of Standards and Technology (NIST) is seeking information from sources that may be capable of providing a Wide bandwidth AFM with IR spectroscopy capabilities. If no alternate sources are identified, NIST intends to issue a Sole Source Award to Molecular Vista, Inc. The CHIPS Metrology Program at NIST advances metrology for accelerating R&D and for developing breakthroughs that support the development of the next-generation microelectronics and ensure the competitiveness and leadership of the United States.

Work Details

The contract requires a Wide bandwidth AFM with IR spectroscopy capabilities that meets specific draft minimum specifications including technical specifications, integration with NIST laser source, and integration with NIST optomechanical resonators probes. The setup must enable imaging of the sample topography, chemical composition, and thermal properties with nanoscale resolution using commercially available AFM probes.
The contract also requires data acquisition and processing capabilities to conduct measurements, process, record, analyze and display data obtained using optomechanical AFM probes.

Place of Performance

National Institute of Standards and Technology (NIST), CHIPS Metrology Program

Show Less

Overview

List Text

Agency	NIST National Institute of Standards and Technology (NIST) [DOC]
Response Deadline	May 9, 2024, 11:00 a.m. EDT Past Due
Posted	April 27, 2024, 12:06 p.m. EDT

University of Illinois at Urbana-Champaign **SoleSource #1RMJ22R0411361**

Announcement of a Sole Source Purchase

Award Info

Published Friday September 10, 2021

Molecular Vista, Inc. San Jose, CA

Amount: An estimated $395,200

- Terms: One-time transaction

Summary

VENDORS

1	0	0	0
total	BEP vendors	VBP vendors	Small businesses

The University award process may be delayed up to thirty days as this award goes through a state approval process.

The hearing has been cancelled

Published Thursday September 9, 2021

The hearing has been cancelled since no vendors registered to attend or submitted comments regarding this notice.

The State Purchasing Officer for this procurement is now Sharon Ferguson.

First published Thursday, August 19, 2021

The University awarded a contract for a state-of-the-art Photo-induced Force Microscope to Molecular Vista, Inc., San Jose, CA, for an estimated $395,200.

The University has a need to acquire a state-of-the-art Photo-induced Force Microscope (PiFM) for the shared facilities at the University of Illinois. This is needed for high-resolution chemical mapping a nanometric spatial resolution in materials to be available to all researchers. The end result of this will be a shared microscope for optical spectroscopy used by several departments for research needs. The university, on information and belief, has concluded that only one vendor can meet its need or can meet the need economically. That vendor is Molecular Vista, Inc. The university has provided detailed justification to support its conclusion as shown on the attached Sole Source Justification Form. Although the university has presented this as a sole source procurement, we are seeking competitive information from firms with the capability of meeting the universitys need (even if performed in a manner different from what has been presented) to contact us and provide sufficient information to show the need can be met. If we receive that information, the Chief Procurement Officer will offer a public hearing to consider the matter. Hearing information is described below.

The University has determined that this purchase is only economically available from this source because the item or service is copyrighted or patented and is not available except from the holder of the copyright or patent. The combination of atomic force microscope (AFM) with laser excitation near the analyzed area in the materials in the recent years opened up the possibility of combining surface topography with optical spectroscopy/microscopy leading to high spatial resolution for chemical mapping. Photo-induced force microscopy (PiFM), patented a few years ago, uses mechanical rather than optical detection to detect the near-field optical interaction between the AFM tip and the sample, with a higher localization of forces, overcoming the poor signal-to-noise ratio of early techniques based on SNOM (near-field optical microscopy).

Thanks,
Trinh

From: Joshua Joshua <Fnu.Joshua@ucf.edu>
Sent: Tuesday, June 24, 2025 12:44 PM
To: Trinh Nguyen <Trinh.Nguyen@ucf.edu>
Cc: Laurene Tetard <Laurene.Tetard@ucf.edu>; Lei Zhai <lzhai@ucf.edu>; Nelson Cordero <Nelson.Cordero@ucf.edu>
Subject: Re: AFM-IR Order - Requesting an update regarding the sole source form

Hi Trinh,

The specification is correct according to the Brochure we obtained from Molecular Vista.
I have the table completed below. Please let us know if you need more information.

Specifications Requirements	Molecular Vista	Bruker	Neaspec
Metal enclosure for vacuum/inert-atmosphere operation	Yes	No	No
High performance closed-loop sample scanner	Yes	Yes	Yes
Dual-z feedback for best near-field nanoscopic without sacrificing maximum z-scan range	Yes	No	Noi
Excellent thermal stability –AFM head and sample scanner fabricated out of Invar with temperature controlled acoustic enclosure. Heating stages available as options.	Yes	Yes - With Different Technology	Yes - With Different Technology
Patented PiFM for the highest spatial resolution	Yes - They are the inventor of the	No - They use photothermal AFM-IR (	No- They Use s-SNOM technology

	PiFM (Non-contact AFM-IR)	Contact and non contact)	for Tapping AFM-IR
Available optical ports for adding custom optical techniques	Yes - Have more freedom for add-on compared to the rest	Yes	Yes
Non-contact bulk-sensitive (~ 500 nm) and surface-sensitive (top ~ 20 nm) modes	Yes	No- Non Contact bulk-senstive Yes - Surface Sensitive	No -Non contact bulk sensitive (They use Tapping) Partial Yes - Surface Sensitive (Sample dependent)

Best,

Joshua

From: Trinh Nguyen <Trinh.Nguyen@ucf.edu>
Sent: Tuesday, June 24, 2025 12:04 PM
To: Joshua Joshua <Fnu.Joshua@ucf.edu>; Laurene Tetard <Laurene.Tetard@ucf.edu>
Cc: Nelson Cordero <Nelson.Cordero@ucf.edu>; Lei Zhai <lzhai@ucf.edu>
Subject: Re: AFM-IR Order - Requesting an update regarding the sole source form

Hi Joshua and Laurene,

Can you please confirm that I have the specifications requirements correctly on the table below and please confirm if Bruker and Neaspec can meet each spec or not? Thanks!

Specifications Requirements	Molecular Vista	Bruker	Neaspec
Metal enclosure for vacuum/inert-atmosphere operation	Yes	No	No
High performance closed-loop sample scanner	Yes		
Dual-z feedback for best near-field nanoscopic without sacrificing maximum z-scan range	Yes		
Excellent thermal stability –AFM head and sample scanner fabricated out of Invar with temperature controlled acoustic enclosure. Heating stages available as options.	Yes		
Patented PiFM for the highest spatial resolution	Yes		
Available optical ports for adding custom optical techniques	Yes		
Non-contact bulk-sensitive (~ 500 nm) and surface-sensitive (top ~ 20 nm) modes	Yes		

From: Joshua Joshua <Fnu.Joshua@ucf.edu>
Sent: Monday, June 23, 2025 3:39 PM
To: Trinh Nguyen <Trinh.Nguyen@ucf.edu>
Cc: Tedra Lyte <Tedra.Lyte@ucf.edu>; Nelson Cordero <Nelson.Cordero@ucf.edu>; Ariasari Lair <Ariasari.Lair@ucf.edu>; Lei Zhai <lzhai@ucf.edu>; Laurene Tetard <Laurene.Tetard@ucf.edu>
Subject: Re: AFM-IR Order - Requesting an update regarding the sole source form

Dear Trinh,

Thank you for your update.

Please let us know if any further information is required. We would be happy to provide it promptly.

Best regards,
Joshua

From: Trinh Nguyen <Trinh.Nguyen@ucf.edu>
Sent: Monday, June 23, 2025 3:38 PM
To: Joshua Joshua <Fnu.Joshua@ucf.edu>
Cc: Tedra Lyte <Tedra.Lyte@ucf.edu>; Nelson Cordero <Nelson.Cordero@ucf.edu>; Ariasari Lair <Ariasari.Lair@ucf.edu>
Subject: Fw: AFM-IR Order - Requesting an update regarding the sole source form

Hi Joshua,

This sole source is assigned to me for review. I'm still reviewing and will reach out with any questions or information needed.

Thank you,
Trinh Nguyen
Procurement Specialist
Knights Experience Team (kNEXT)
University of Central Florida
Trinh.Nguyen@ucf.edu
☏ 407-823-5889
ucf.edu ● kNEXT.ucf.edu ● Workday Help

Molecular Vista, Inc.
Tel: 408.915.2595
info@molecularvista.com
https://www.molecularvista.com

University of Central Florida, Laurene Tetard
4353 Scorpius Street, Ste 217
Research 1
Orlando FL 32816
United States

Quotation # 25067

Quotation Date:	Expiration:	Salesperson:
04/01/2025	08/01/2025	Peyton Carroll

DESCRIPTION	QUANTITY	UNIT PRICE	TAXES	AMOUNT
Vista One IR PiFM System (Q) (DayLight, No Hole) Vista One AFM Platform consisting of: * Vista One Controller for AFM and PiFM with Controller Cables * Vista One Optical AFM Frame * XY Motorized Stage w/encoders * XYZ Scanner w/Cap Sensors * AFM Head with integrated Parabolic Mirror and 3D Stage * Top Optics with 20X Objective Lens * Frame Cables * 10 Cantilevers * Broadly tunable mid-IR QCL (~770 - ~1840 cm-1)	1.00 Units	396,236.00		$ 396,236.00
[MPXM0000-A] Medium Laser Multiplexer (Used with QCL) Medium Laser Multiplexer * Couples to an IR Laser Source for computer control * Options: Up to two extra computer-controlled ports and polarization switcher (P/S)	1.00 Units	17,966.00		$ 17,966.00
[ACST0000-C] Temperature Controlled Acoustic Chamber	1.00 Units	11,117.00		$ 11,117.00

Molecular Vista, Inc.
Tel: 408.915.2595
info@molecularvista.com
https://www.molecularvista.com

[M-P-0181-C] Accurion 810039 i4 M6/25 tabletop active vibration isolation system with M6 threaded hole pattern	1.00 Units	10,821.00	$ 10,821.00
[DAIR0000-A] Dry Air Filtration System (240V) Generates dry-air by filtration of compressed air (to be supplied by customer)	1.00 Units	4,900.00	$ 4,900.00
Installation and Training - 5 days with MVI engineer Installation and Training - Includes 5 days of installation and training with MVI engineer	1.00 Units	7,656.00	$ 7,656.00

Total $ 448,696.00

Options

DESCRIPTION	UNIT PRICE
[ODFG0000-A] OPO/DFG Tunable IR Laser OPO/DFG Laser Single housing tunable picosecond laser • 87 MHz ± 5 MHz PRR • ~8 ps pulse duration • DFG range from 589 cm-1 to 2080 cm-1 (4.8 µm – 17 µm) • Idler range from 2245 cm-1 to 4385 cm-1 (2.28 µm – 4.45 µm) • Signal range from 5000 cm-1 to 7000 cm-1 (1.4 µm – 2.0 µm) • Integrated AOM included • AOM modulation in the 70 kHz – 2 MHz range	$ 306,240.00

Molecular Vista, Inc.
Tel: 408.915.2595
info@molecularvista.com
https://www.molecularvista.com

DESCRIPTION	UNIT PRICE
[ECVR0000-C] Environmental Chamber Cover * Metal cover for sample/tip region for purging; * Required for humidity control option; * Proper window to provide compatibility with top optics; * Vacuum accessories included (For purge/humidity version); * Scroll pump (a separate option) is recommended for pumping.	$ 3,712.00
[SCRP0000-A] Scroll Pump Dry scroll pump, tubing, and accessories. Pump environmental enclosure down to 100 mTorr within 10 minutes.	$ 9,188.00

Equipment Warranty: Molecular Vista warrants for one year that equipment manufactured by Molecular Vista will be free of defects in workmanship and materials. During the Equipment Warranty period Molecular Vista will service, adjust, or replace any non-conforming part(s) under this Equipment Warranty at no charge to the customer.

Payment Terms: 40/50/10, PO/Delivery/Acceptance

Shipping Terms: FOB San Jose, CA

Delivery: < 18 weeks