SOURCES SOUGHT NOTICE FA700026Q0068

Powder X-Ray Diffraction (XRD) System

Notice Type	Sources Sought / Request for Information (RFI)
Response Date	14 July 2026 at 10:00 AM MDT
NAICS Code	334516 – Analytical Laboratory Instrument Manufacturing
SBA Size Standard	1,000 Employees
Product Service Code (PSC)	6630 – Chemical Analysis Instruments

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1.0 DISCLAIMER

This is a Sources Sought Synopsis (SSS) ONLY. This is NOT a Request for Proposal (RFP), Request for Quotation (RFQ), or an Invitation for Bid (IFB). This notice is issued solely for information and planning purposes and does not constitute a solicitation. Responses to this notice will not be returned. The Government is not obligated to and will not pay for any information received from potential sources as a result of this synopsis.

2.0 BACKGROUND & PURPOSE

The US Air Force Academy (USAFA) is conducting market research to identify potential sources, specifically Small Business concerns (including 8(a), HUBZone, Service-Disabled Veteran-Owned, and Women-Owned Small Businesses), capable of providing a complete, fully functional Powder X-Ray Diffraction (XRD) system.

The instrument will serve as a shared analytical platform supporting multidisciplinary research across materials science, chemistry, physics, environmental science, and engineering, as well as enhancing experiential learning for cadet researchers. The purpose of this notice is to determine the availability of capable small business value-added resellers or manufacturers to support a Total Small Business Set-Aside under FAR Part 12 commercial acquisition procedures.

3.0 REQUIRED CAPABILITIES (SALIENT CHARACTERISTICS)

The Government requires a highly modular, advanced Powder XRD system that meets or exceeds the following brand-agnostic performance specifications:

3.1 General System

- Fully functional, installed system with true plug-and-play functionality for interchanging stages/optics without complex manual realignment.
- Compact radiation safety enclosure (< 1 µSv/h).

3.2 X-Ray Source & Goniometer

- Copper (Cu) anode X-ray tube (approx. 2.2 kW) and medium frequency generator.
- Vertical Theta/Theta geometry goniometer (0.0001-degree angular increment).

3.3 Optics & Detector

- Automated, cross-beam optics technology with motorized switching between beam paths.
- 2D multi-mode detector (single-photon counting) operating in 0D, 1D, and 2D modes. Pixel size ≤ 75 µm x 75 µm. Media-free operation.

3.4 Sample Stages & Specialized Capabilities

- Motorized rotating sample stage and motorized compact XYZ stage.
- Motorized low-temperature chamber (–180°C to +450°C in vacuum).
- Equipped for Small Angle X-ray Scattering (SAXS) with evacuated flight tube.

3.5 Software

- Comprehensive software for automated workflows, phase identification, structural analysis, and PDF determination. Must support advanced data processing (e.g., AI de-noising).

4.0 SUBMISSION INSTRUCTIONS

Interested parties who consider themselves capable of providing this equipment are invited to submit a response to this Sources Sought Notice.

Responses must include the following information:

1. **Company Information:** Company Name, Address, CAGE Code, and SAM Unique Entity ID (UEI).
2. **Point of Contact:** Name, Title, Phone Number, and Email Address.
3. **Socio-Economic Status:** Indicate business size and any applicable socio-economic categories (e.g., Small Business, 8(a), SDVOSB, WOSB, HUBZone) under NAICS code 334516.
4. **Capability Statement:** A brief capability statement (not to exceed 5 pages) demonstrating the ability to provide equipment meeting the Salient Characteristics listed in Section 3.0. Please include product literature, specification sheets, or catalogs of the proposed solution.
5. **Manufacturer Status:** Clearly state whether your company is the original equipment manufacturer (OEM) or an authorized distributor/reseller. If a reseller, please confirm your ability to supply the equipment and provide the OEM's name and location.
6. **Commercial Availability:** Confirmation that the proposed item is a Commercial Product as defined in FAR 2.101.
7. **Estimated Lead Time:** Provide standard commercial delivery timeframes after receipt of order (ARO).

All responses must be submitted via email to Ronald Wilson at ronald.wilson.26@us.af.mil and Mikayla Brandt at mikayla.brandt@us.af.mil no later than 14 July 2026 at 10:00 AM MDT. Please use the subject line: **"Sources Sought FA700026Q0068 Response — Powder XRD System — [Company Name]"**.

5.0 OMBUDSMAN

(a) An ombudsman has been appointed to hear and facilitate the resolution of concerns from offerors, potential offerors, and others for this acquisition. When requested, the ombudsman will maintain strict confidentiality as to the source of the concern. The existence of the ombudsman does not affect the authority of the program manager, contracting officer, or source selection official. Further, the ombudsman does not participate in the evaluation of proposals, the source selection process, or the adjudication of protests or formal contract disputes. The ombudsman may refer the interested party to another official who can resolve the concern.

(b) Before consulting with an ombudsman, interested parties must first address their concerns, issues, disagreements, and/or recommendations to the contracting officer for resolution. Consulting an ombudsman does not alter or postpone the timelines for any other processes (e.g., agency level bid protests, GAO bid protests, requests for debriefings, employee-employer actions, contests of OMB Circular A-76 competition performance decisions).

(c) If resolution cannot be made by the contracting officer, the interested party may contact the ombudsman, Mr. James Anderson, 8110 Industrial Drive, STE 103, USAFA, CO 80840, Telephone number 719-333-2074, FAX 719-333-9018, Email: james.anderson.72@us.af.mil. Concerns, issues, disagreements, and recommendations that cannot be resolved at the Center/MAJCOM/DRU/SMC ombudsman level, may be brought by the interested party for further consideration to the Air Force ombudsman, Associate Deputy Assistant Secretary (ADAS) (Contracting), SAF/AQC, 1060 Air Force Pentagon, Washington DC 20330-1060, phone number (571) 256-2395, facsimile number (571) 256-2431.

(d) The ombudsman has no authority to render a decision that binds the agency.

(e) Do not contact the ombudsman to request copies of the solicitation, verify offer due date, or clarify technical requirements. Such inquiries shall be directed to the contracting officer.

(End of clause)