

Special Notice

Atomically Precise Molecules (APM) Proposers Day

DARPA-SN-26-123

September 8, 2026



Defense Advanced Research Projects Agency

Multi X Office

675 North Randolph Street

Arlington, VA 22203-2114

**Proposers Day
Special Notice DARPA-SN-26-123**

**Atomically Precise Molecules (APM)
Defense Advanced Research Projects Agency (DARPA)
Multi X Office (MXO)**

Posting Date: September 8, 2026

Event Date: September 30, 2026, at 8:00 a.m. Eastern Time (ET)

Registration Deadline: September 23, 2026, at 5:00 p.m. Eastern Time (ET)

Registration Website: <https://cvent.me/ZmYvwL>

Technical POC: Dr. John M. Hoffman, MXO Program Manager

E-mail: APM@darpa.mil

PROPOSERS DAY DESCRIPTION:

The Defense Advanced Research Projects Agency (DARPA) will host a hybrid Proposers Day in support of DARPA Program Solicitation (PS) for APM on September 30, 2026, at Systems Planning and Analysis (SPA), 4075 Wilson Blvd, Suite 201 in Arlington, VA, and via webcast from 9:00 a.m. to 12:00 p.m. ET. DARPA anticipates releasing the APM solicitation prior to Proposers Day. If released, the PS will be made available at <https://sam.gov/>.

The goals of the Proposers Day are:

- (1) To introduce the science and technology community (industry, academia, and government) to the APM program vision and goals;
- (2) To facilitate interaction between researchers with capabilities and interests relevant to the APM program goals;
- (3) To collect questions during the event that DARPA may answer and make available in a Question and Answer document maintained at <https://www.darpa.mil/research/programs/atomically-precise-molecules-apm>; and
- (4) To encourage and promote teaming arrangements among organizations that have the relevant expertise, research facilities, and capabilities for executing multidisciplinary research and development responsive to the APM program goals.

The Proposers Day will include overview presentations by government personnel and opportunities for team building among the participants. It is anticipated that recording of the Proposers Day and materials will be posted online at <https://www.darpa.mil/research/programs/atomically-precise-molecules-apm>.

PROGRAM OBJECTIVE AND DESCRIPTION:

The objective of the APM program is to develop synthesis approaches that deliver programmable precision polymers (PPPs), opening up a previously inaccessible material synthesis capability with the potential for a near-infinite palette of new materials that enable new functions. PPPs control the sequence, orientation, and composition of molecules within a material with high precision. PPPs overcome current limitations through synthesis approaches that enable designers to control material properties across time and length scales, from single molecules to arrangements of molecules acting together in a coordinated fashion.

By controlling material properties through structure at the molecular level, we can deliberately make materials with targeted characteristics required for advanced performance. For systems that incorporate non-linear optical materials, a critical capability to defense and commercial sectors, this capability could

enable the design and synthesis of materials that maximize electro-optic performance at sub-nanosecond switching speeds. By mastering the high-yield synthesis of programmable materials, the Department of War aims to deploy PPP-based materials to maximize the performance of non-linear optical devices, specifically the electro-optic modulator.

While non-linear optics will be the initial demonstration of APM synthesis capabilities, this is just the beginning. By developing synthesis approaches that deliver fit for purpose materials, APM will contribute directly to MXO's vision of a new programmable matter economy. By unlocking this material synthesis capability, one can envision a wide range of applications where PPPs can introduce entirely new functions.

APM is structured as a two-phase program. Phase 1 is a 12-month phase focused on developing new chemistries. Phase 2 is a 24-month phase focused on employing these chemistries to synthesize revolutionary materials and incorporating them into functional devices that surpass the current state of the art. Given the multidisciplinary nature of the program's goals, proposer teams must include expertise in polymer synthesis, computational chemistry and multiscale material simulation with an emphasis on multi-body and dynamic approaches, bottom-up and/or top-down self-assembly, polymer/material characterization, synthesis scaling to relevant quantities, material integration into microfabrication processes, and electro-optical material development. Non-linear optical device design and fabrication expertise is preferred but not required.

PROPOSERS DAY AGENDA:

The Proposers Day meeting will be hosted in a hybrid format using Microsoft Teams. The Proposers Day meeting will start with presentations by DARPA that include a program technical briefing to further describe the planned PS objectives and content. Both in-person attendees and virtual attendees will have the opportunity to ask questions, and answers will be provided to all attendees. Additionally, there will be lightning round sessions to facilitate teaming, as well as networking time/poster session. See the agenda below, which is subject to change.

START	TOPIC
8:00 AM	Check-In/Poster Set-Up
9:00 AM	Welcome/Security
9:05 AM	Program Overview and Structure
9:20 AM	MXO Overview
9:35 AM	Contracting with DARPA
9:50 AM	DARPAConnect
9:55 AM	BREAK
10:05 AM	Lightning Round
11:45 AM	Q&A Responses
12:00 PM	LUNCH (on your own)
1:00 PM	Networking Time/Poster Session
1:00 PM	One-on-ones (by appointment only)
5:00 PM	ADJOURN

This meeting will be held at the UNCLASSIFIED level. Those approved and choosing to attend in person must present government-issued photo identification upon entry to the event.

REGISTRATION INFORMATION:

In-person registration is limited by the venue capacity (maximum of 75 attendees), and virtual registration is limited by the virtual platform capacity (maximum of 300 attendees); early registration is strongly recommended. The determination of maximum participants per organization and what constitutes an organization will be made by the DARPA Program Manager. Registrations will be cut off at the registration deadline listed above or once attendance capacity is met, whichever comes first. Any change to the registration deadline will be captured via an amendment to this notice and an update to the registration website. Virtual Proposers Day registrants will be provided a link and instructions to access the event after their registration has been approved.

The Proposers Day is open only to registered potential proposers. The event is closed to the general public and media. An online registration form, preliminary agenda, foreign national visit request form, and meeting details, for the Proposers Day can be found at the registration website.

Additionally, all meeting registrants including virtual attendees who are not U.S. Citizens must complete and submit one of the following:

- All U.S. Permanent Residents and Foreign Nationals not representing a foreign government must submit a DARPA Form 60 “U.S. Permanent Resident and Foreign National Visit Request”, which can be submitted via the following link: <https://dtsn.darpa.mil/eform60/>.
- Foreign government personnel who are representing a foreign government in an official capacity must submit an official Foreign Visit Request (FVR) via their respective Embassy based in Washington, DC.

All forms must be submitted no later than September 15, 2026, at 5:00 p.m. ET. Failure to complete and submit the required forms prior to the date and time noted above may result in the cancellation of existing registration.

TEAMING:

While not required, DARPA encourages teaming amongst the community as appropriate and when strategic to achieve program outcomes. To facilitate the building of teams, Proposers Day registrants may choose to participate in the options below:

1. **Attendee List:** Participant contact information (name, organization, email address) will be included on the APM Proposers Day attendee list distributed to other prospective proposers. Registrants may indicate during registration whether they approve publication of their contact information.

2. **Proposer Profile List:** Interested parties should submit a one-page profile consisting of their contact information (name, organization, email, telephone number, mailing address, and, if applicable, organization website), a brief unclassified description of their technical competencies, and, if applicable, the expertise desired from other teams/organizations. All profiles must be emailed to APM@darpa.mil no later than October 7, 2026, at 5:00 p.m. ET. Following this deadline, the consolidated teaming profiles will be sent via email to the proposers who submitted a profile. Specific content, communications, networking, and team formation are the sole responsibility of the participants. Neither DARPA nor the DoD endorses the information and

organizations contained in the consolidated teaming profile document, nor does DARPA or the DoD exercise any responsibility for improper dissemination of the teaming profiles.

3. Requests Through Email: Prospective proposers can also request the attendee list and/or the prospective proposer profile list through email at APM@darpa.mil. All email requests must be received by October 14, 2026, at 5:00 p.m. ET and follow the same security requirements as Proposers Day attendees (e.g., government photo ID and DARPA Form 60 or FVR requirements). It is incumbent on email requesters to ensure all provided information is accurate. DARPA will not provide access to secure data transfer capabilities (e.g., DoD SAFE), and DARPA reserves the right to deny requests stemming from its vetting of requesters' security documentation.

LIGHTNING ROUNDS:

A lightning round will be held to facilitate interaction among attendees and to give an opportunity to showcase capabilities and build strong teams to solve the challenge presented in APM. No template for the presentation will be provided; however, presentations should highlight proposer capabilities and teaming requirements and must include presenter's contact information. There is a limit of one presentation per organization, and presentations will be limited to five minutes each. Registrants must indicate their intent to participate in the lightning round session during registration. Due to time constraints, lightning round presentations will be limited, but for any prospective proposer who conveys interest in a lightning round presentation after the limit has been reached and submits presentation slides by the deadline below, that prospective proposer's presentation slides (along with those of the presenters) will be distributed to all other confirmed Proposers Day attendees.

All presentations must be in Microsoft PowerPoint or PDF format. Unclassified presentations should be emailed to APM@darpa.mil no later than September 23, 2026, at 5:00 p.m. ET. Presentations should not contain any Controlled Unclassified Information (CUI) or classified information and must be suitable for unlimited public release. NO CLASSIFIED INFORMATION SHOULD BE SENT TO APM@darpa.mil.

POSTERS:

A poster session will be held to facilitate interaction among attendees and to give an opportunity to showcase capabilities and build strong teams to solve the challenge presented in APM. No template for the poster will be provided; however, posters should highlight proposer capabilities and teaming requirements and must include presenter's contact information. Posters should not contain any Controlled Unclassified Information (CUI) or classified information and must be suitable for unlimited public release. There is a limit of one poster per organization, and posters should be no larger than 24" x 36". Registrants must indicate their intent to participate in the poster session during registration. Posters must be presented in-person. Digital versions of posters in either Microsoft PowerPoint or PDF format should be sent in advance to APM@darpa.mil. Posters will be distributed to all confirmed Proposers Day attendees.

BREAKOUT SESSIONS:

One-on-one breakout sessions with the APM Program Manager will be available during the Proposers Day. Advance registration is required. Breakout sessions will be scheduled in 10-minute intervals from 1:00 p.m. to 4:00 p.m. ET. To request a session, please indicate your discussion topic and participating attendees (no more than five) when registering. Please note that all members participating in the breakout sessions must be successfully registered in order to attend. Requests submitted through registration do not guarantee selection for an individual session. All registered attendees chosen to participate in breakout sessions will receive notification containing their selection, scheduled time and

location, and detailed guidance on or before September 28, 2026. Breakout sessions must be attended in person.

STAY CONNECTED:

Subscribe to [DARPA MXO's newsletter](#) for timely updates on research opportunities, upcoming events, ways to work with us, and more.

- MXO will be hosting its next event, MXO's Spark Tank, in Chicago, Illinois, on November 2–4, 2026. For details, visit <https://www.darpa.mil/events/2026/spark-tank>.

DARPACONNECT:

Entities who have not worked with DARPA before are encouraged to learn more about DARPAConnect, an initiative established to facilitate collaboration between DARPA and potential performers. The DARPAConnect team offers customized support, resources, and guidance on how to prepare ideas for high-impact conversations with DARPA program managers. Please visit [DARPAConnect.us](https://darpaconnect.us) to access a digital hub of online resources, including a curriculum for self-paced learning, personalized support, and in-person and virtual events. To prepare for the Proposers Day, attendees can leverage the learning module on "[Making the Most of a DARPA Proposers Day](#)." In addition to the self-paced online materials, the DARPAConnect team is able to schedule one-on-one conversations to discuss specific ideas, questions, and paths to DARPA. Use the contact form at [DARPAConnect.us](https://darpaconnect.us) or email the DARPAConnect team directly at darpaconnect@darpa.mil to request assistance.

ADMINISTRATIVE:

All administrative and technical questions should be directed to APM@darpa.mil. Please refer to the Special Notice number (DARPA-SN-26-123) in all correspondence.

This Special Notice is issued solely for information and program planning purposes and does not constitute a formal solicitation for proposals or proposal abstracts; any so sent will be disregarded. In accordance with FAR 15.201(e), responses to this Special Notice are not offers and cannot be accepted by the Government to form a binding contract. Attendance is strictly voluntary and is not required to propose to subsequent Announcements (if any) or Solicitations (if any) on this topic. DARPA will not provide reimbursement for costs incurred in responding to this Special Notice. Respondents are advised that DARPA is under no obligation to acknowledge receipt of any information received or provide feedback to respondents with respect to any information submitted under this Special Notice.