

Atomically Precise Molecules (APM): DARPA-PS-26-141

Question and Answer Document

October 7, 2026

- 1. Question:** If we are an individual researcher capable of addressing perhaps one of the pillars, but don't have a complete team (e.g., sustainability / manufacturing) will there be mechanisms for finding teams?

Answer: DARPA actively encourages cross-disciplinary teaming, but does not mandate or directly match partners. All teaming arrangements remain the sole responsibility of the proposers. To assist interested performers in connecting, DARPA facilitates networking via the APM Proposers Day and makes available attendee contact registries, lightning talks, and poster session materials so prospective performers can independently identify and build full proposal teams.

- 2. Question:** One goal of the project is to achieve >1THz modulation. I am not quite sure if THz signal generator is available or not, are we expecting to demonstrate the THz modulator all optically? Could you use a pump-probe experiment?

Answer: We recognize that electrical THz modulation measurement is a challenge. We don't know yet what IV&V characterization methods will be available at the time of characterization. Once the project begins, All APM performers will collaborate the IV&V team for viable testing methodology based on their approach. A potential approach could be pump and probe approach as long as there is an established quantitative correlation of the test results with the required THz response.

- 3. Question:** What is the relevant wavelength range for the optical metrics, for example $r_{33} \propto n^3$? Is it near IR wavelengths (900-1500 nm) for the relevant optical applications? Is there a specific single wavelength at which the stated benchmarks are to be achieved? Or something else?

Answer: Metrics are defined without wavelength requirements. Performers are asked to propose an operating wavelength of their choice, accompanied by a sound technical justification demonstrating commercial and DoW relevance.

4. Question: What if during the course of the program all of the optical metrics are met expect for one? I believe the optical loss metric is fundamentally incompatible with the other optical metrics; if all of the other metrics are met expect for that one would the program be considered successful?

Answer: The optical loss metric is for passive materials for demonstrations 2 and 3. The optical loss for demonstration 4 is for the integrated device.

5. Question: Cost realism is one of the proposal evaluation metrics. Can you comment on the total program budget and number of anticipated awards?

Answer: DARPA anticipates multiple awards. The proposed program budget should be commensurate to the unique technical approach. Please review the Budget and Price evaluation criteria in Section II of the solicitation.

6. Question: Can non-US entities participate as a subcontractor under this solicitation?

Answer: Foreign entities may not perform research and development (R&D) tasks as primes, subcontractors, or team members. However, foreign commercial vendors are permitted if they are strictly providing standard commercial products or services.

7. Question: Is the APM program open to approaches that include biological/biochemical processes, as long as program goals and metrics are met?

Answer: DARPA is agnostic to approaches as long as the program goals and metrics are met.

8. Question: Can we hire non-us personnel like students and postdocs to work on this program

Answer: Foreign national students and postdoctoral researchers affiliated with an eligible U.S. performing institution may participate provided that all program security requirements and foreign national access controls - as specified in the solicitation and the program's Controlled Unclassified Information (CUI) Guide - are strictly satisfied

9. Question: I understand that final device fabrication and design will be done through the IV&V team. However, there may be some interim device fabrication that needs to be done for measuring material properties and examining integration techniques. Are costs for device fabrication and development allowable for these materials testing steps?

Answer: The IV&V team will be responsible for all device fabrication needs in Phase 2 including interim device fabrications prior to demonstration 4. However, any test bed or device proxy the performers require can be included in the cost volume.

10. Question: Are multi-institutional teams required, strongly encouraged, or optional? What is the limit on the number of PIs in the team? Would the organization determine which proposer can submit the abstract as only 1 lead proposal is allowed per organization?

Answer: Multi-disciplinary teams, diverse in technical expertise are encouraged to meet the goals of APM, but there is no requirement on multi-institutional teams. There is no limit on the number of PIs, however, as with any personnel proposed, there should be a clear description of the team organization, key personnel, clear level of effort mapped to the technical tasks; Yes. The proposer team should have the Prime organization submit the abstract. The APM solicitation states that FFRDC, UARC and government entities are not eligible to be Prime performers and non-US organizations may not participate.

11. Question: The OT leaves the key data rights blank and states the Government rights to deliverables and generated data will be inserted at award. Can you provide a sense of what rights are anticipated for technical reports? Will APM-generated data receive Government Purpose Rights, Limited Rights, or something broader? Following delivery of milestone materials and technical reports, what is the anticipated process and timeline for IV&V review and Government Acceptance, and thus enabling milestone payments?

Answer: Please refer to the solicitation for information on the Government's Intellectual Property position for APM. Page 13 of the APM solicitation identifies a minimum of GPR for Foreground Data with an expectation of a license right to Background Data/IP solely for the purposes of performing IV&V, technical milestone verification, and performance metrics evaluation under the Agreement. Final IP and Data Rights terms will be negotiated into the model. Per DARPA's standard terms and conditions for Other Transactions, written notice

of acceptance or rejection with feedback regarding corrections is generally provided within 15-days of milestone delivery.

12. Question: Please provide more info on your interests for applications outside of NLO. For example, are applications at higher temperature environments of interest? If we are interested in bringing that type of non NLO application to the program, do we wait to join in phase 2. How do you see performers that just bring an application participating in phase 1?

Answer: APM is not seeking applications outside of NLO materials.

13. Question: Does the APM program consider proposals led by early-career faculty? Given the critical importance of program delivery, what seed funding pathways or mechanisms exist for early-career researchers to build a proven track record with DARPA? Additionally, is there any anticipated alignment between upcoming DARPA Young Faculty Award (YFA) solicitations and the technical goals of the APM program?

Answer: All responsible sources capable of satisfying the government's needs may submit a proposal that shall be considered by DARPA. DARPA doesn't currently anticipate there will be alignment of upcoming YFA solicitation and APM program.

14. Question: Is it possible to get a bit more granular regarding what the DARPA team sees as being the outstanding challenges? Or put another way, what gaps does DARPA see in existing synthetic methods and strategies? Understanding where you view gaps will greatly help folks like me craft a proposal that addresses them.

Answer: APM is seeking approaches/technologies that enable the synthesis of currently inaccessible polymers, where the sequence, orientation, and composition of materials are programmable.

15. Question: What are the rules around the same institution participating in multiple proposals?

Answer: There is no restriction on the number of proposals an institution may submit or participate in, whether as a prime contractor, subcontractor, or team member. However, DARPA seeks truly revolutionary, high-impact concepts rather than incremental variations

or multiple speculative submissions. Proposers are strongly advised to concentrate their resources on developing their most compelling, transformative ideas. Please note that DARPA may decline or adjust funding across multiple awards if proposed technical scopes, tasks, or key personnel commitments are duplicative or substantially overlapping.

16. Question: Is the \$25k for the optional Phase 1 CMMC Milestone for one organization or for the entire proposing team?

Answer: The Government will allocate per proposal a fixed amount of up to \$25,000 for the successful execution and completion of the Optional Phase I CMMC Milestone per Agreement.

17. Question: Should all pillars have quantitative metrics in proposal?

Answer: Please refer to the Program Solicitation section B (Program Description) for instructions on how to address the four pillars in a proposal.