

**DARPA PA-19-01-02**  
**Thermal Engineering Using Material Physics (TEMP)**  
**Frequently Asked Questions (FAQs)**  
**as of 8/10/2020**

9Q: It appears that the effort is focused on radiation, but is it OK to include some heat conduction aspects? Materials engineering for radiation should alter conduction as well as which will affect the final performance.

9A: Approaches that alter conduction in addition to radiation are acceptable.

8Q: Do you have a recommended team size (how many PIs)?

8A: No.

7Q: Do you expect a full scale demonstration of the material/coating on gas turbines or thermophotovoltaics, or a small lab scale demonstration?

7A: A small lab scale demonstration that validates the results of the modeling is sufficient.

6Q: Does the reference to “visible spectrum radiation” in the Disruption Opportunity DARPA-PA-20-01-02 refer to visible wavelengths or to radiation visible to any sensor?

6A: Proposers should consider the relevant heat transfer parameters such as wavelength when considering the effect of their approach their chosen application. Proposers should also be aware that export controls may apply depending on wavelength chosen for demonstration of their approach.

5Q: In the Disruption Opportunity DARPA-PA-20-01-02, it says "DARPA is specifically interested in solutions that result in at least ten percent improvement in radiative heat transfer performance over the state of the art." Can you please specify what performance of radiative heat transfer you are expecting to achieve 10% improvement in the proposed work? Heat-conversion-efficiency or something else?

5A: The efficiency improvement should enable higher temperature operation and thereby improve the intended application (e.g. gas turbine or TPV efficiency as exemplar applications).

4Q: Will this program allow participation from international research groups or international researchers?

4A: Participation from international research groups and international researchers is allowed. Please note that it is expected that work performed under these OTs will not be considered fundamental research and publications resulting from this work will not be eligible for release without written permission from DARPA.

3Q: Can I request feedback on if a particular scientific approach or technical topic might be of interest on the TEMP program?

3A: DARPA will not be providing feedback on particular approaches or topics at this time.

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2Q: Are proposals less than the total \$1M amount acceptable?

2A: Yes.

1Q: Are both single-PI and collaborative proposals accepted under this DO?

1A: Yes.