

**Opportunity Title:** BS or MS Chemical Engineer for advanced polymer filtration membranes

**Opportunity Reference Code:** ARL-R-SEM-400063-F1

**Organization:** DEVCOM Army Research Laboratory

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**How to Apply:** Applications must be submitted in [Zintellect](#).

**A complete application includes:**

**1. Curriculum Vitae or Resume**

- o List relevant coursework and lab experience as well as all papers, presentations, or publications you may have authored or co-authored. Include any reprints or abstracts if they are available.

**2. Three References Forms**

- o An email with a link to the reference form will be available in Zintellect to the applicant upon completion of the on-line application. Please send this email to persons you have selected to complete a reference.
- o References should be from persons familiar with your educational and professional qualifications (include your thesis or dissertation advisor, if applicable)

**3. Transcripts**

- o Transcript verifying receipt of degree or current enrollment in an undergraduate or graduate program at an accredited university or technical institute. Student/unofficial copy is acceptable

**4. Research Proposal**

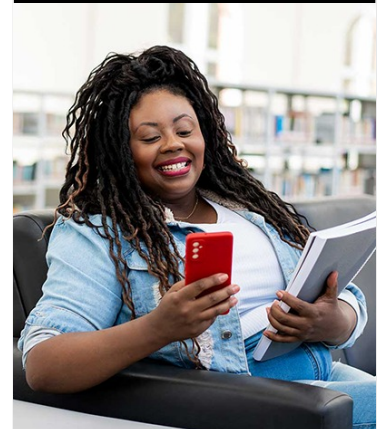
- o Research topic should relate to a specific opportunity at ARL
- o The objective of the research topic should be clear and have a defined outcome
- o Explain the direction you plan to pursue
- o Include expected period for completing the study
- o Include a brief background such as preparation and motivation for the research
- o References of published efforts may be used to improve the proposal

**Description:** Opportunity for doctoral graduates or candidates expecting to graduate with a PhD in science and engineering disciplines for research positions. Candidates should have completed or be finalizing a PhD in chemical engineering, chemistry or materials science. Experience in covalent organic frameworks, filtration, absorbance or controlled optical properties desired. This research will be heavily involved in the design, synthesis and characterization of novel materials for tuned optical control, or membrane filtration.

**This opportunity is open for U.S. citizens only.**

**Desired Experience:**

Experience with filtration or controlling optical response of materials is



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**ARL Advisor:**

Emil Sandoz-Rosado  
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**About Army Research Directorate (ARD)**

ARL's Army Research Directorate (ARD) focuses on exploiting concept development, discovery, technology development, and transition of the most promising disruptive science and technology to deliver to the Army fundamentally advantageous science-based capabilities through laboratory's 11 research competencies. This intramural research directorate also manages the laboratory's essential research programs, which are flagship research efforts focused on delivering defined outcomes.

**About Army Research Laboratory Research Associateship Program (ARL-RAP)**

The Army Research Laboratory Research Associateship Program (ARL-RAP) is designed to significantly increase the involvement of creative and highly trained scientists and engineers from academia and industry in scientific and technical areas of interest and relevance to the Army. Scientists and Engineers at the CCDC Army Research Laboratory (ARL) help shape and execute the Army's program for meeting the challenge of developing technologies that will support Army forces in meeting future operational needs by pursuing scientific research and technological developments in diverse fields such as: applied mathematics, atmospheric characterization, simulation and human modeling, digital/optical signal processing, nanotechnology, material science and technology, multifunctional technology, combustion processes, propulsion and flight physics, communication and networking, and computational and information sciences.

**About Science of Extreme Materials (SEM)**

Materials and related manufacturing methods focusing on mechanical response and performance extremes, including active, adaptive, and flexible/soft materials; novel manufacturing science for energetic materials.

Questions about this opportunity? Please email [ARLFellowship@ora.u.org](mailto:ARLFellowship@ora.u.org)

**Qualifications** Experience handling chemicals is desired. Coursework in organic chemistry is desired but not required. Experience or coursework with mechanical characterization (tensile testing etc.) is desired but not required. Experience with filtration, or energy storage applications is beneficial but not required.

**Point of Contact** [ARL-RAP](#)

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- Eligibility**
- **Citizenship:** U.S. Citizen Only
- Requirements**
- **Degree:** Bachelor's Degree or Master's Degree received within the last 6 months or currently pursuing.
  - **Academic Level(s):** Bachelor's Degree (Journeyman Fellow) or Master's Degree (Journeyman Fellow).
  - **Discipline(s):**
    - **Chemistry and Materials Sciences** ([12](#))
    - **Communications and Graphics Design** ([2](#))
    - **Computer, Information, and Data Sciences** ([17](#))
    - **Earth and Geosciences** ([21](#))
    - **Engineering** ([29](#))
    - **Environmental and Marine Sciences** ([14](#))
    - **Life Health and Medical Sciences** ([51](#))
    - **Mathematics and Statistics** ([11](#))
    - **Physics** ([16](#))
    - **Science & Engineering-related** ([2](#))
    - **Social and Behavioral Sciences** ([29](#))