

PRF Science Panels and Areas of Research Support *

Panel	Discipline and Areas of Research Support
1	Synthetic Organic Chemistry Organic synthesis, including organic and organometallic reagents and catalysts, and asymmetric synthesis.
2	Geochemistry Isotope, organic and sedimentary geochemistry, marine geochemistry, and diagenesis.
3	Inorganic Chemistry Coordination and organometallic chemistry, homogeneous catalysis, small soluble clusters, new ligands, main group, transition metal, and lanthanide and actinide metal chemistry.
4	Physical Organic Chemistry Reaction mechanisms, kinetics, photochemistry, organic radical chemistry, reactive organic species, enzymes in non-aqueous media working on petroleum molecules.
5	Surface Science Surface phenomena and reactions, heterogeneous catalysis, and characterization of surfaces directly relevant to petroleum and petroleum products.
6	Chemical Physics/Physical Chemistry Theoretical chemistry, quantum/statistical mechanics, and molecular dynamics; optical, laser, ultrafast, and mass spectroscopies; and gas phase reactions.
7	Polymer Science Synthesis, characterization, and properties of polymers and organic materials derived from petroleum sources.
8	Geology and Geophysics Stratigraphy, sedimentology, paleontology, geomorphology, structural geology, and geophysics.
9	Chemical and Petroleum Engineering Engineering studies including process and operations control and design, fluid flow and multiphase flow dynamics, and related computations.
10	Materials Science Synthesis, characterization, bulk properties and solid-state chemistry of petroleum materials.

* Research Topics currently excluded from ACS PRF Funding:

The phrase "fundamental research" **excludes** research that aims to develop new experimental or theoretical techniques, analytical methods, and devices. It also excludes research focused on applications or patentable research. Also, ACS PRF **does not** consider proposals in the areas of Alternative Energy, Biosystems and Biochemistry, Environmental Remediation or Pollution, Non-Petroleum Topics, and Applied Research Topics. **Currently excluded areas include, but are not limited to:**

Alternative Energy:

- alternatives or substitutes for petroleum
- batteries
- fuel cells
- hydrogen generation
- hydrogen storage
- photovoltaics
- solar cells and solar energy
- thermoelectrics
- wind energy and wind farms

Biosystems and Biochemistry:

- biofuels
- biomass conversion
- biomedical, pharmaceutical or drug-delivery studies
- biopolymers, including blends and block
- metabolic pathway research
- natural product synthesis
- research on biosystems – including organ, organelle, tissue, or whole-organism studies
- synthesis of compounds for biological evaluation

Environmental Remediation or Pollution:

- environmental engineering
- oil spills and cleanup
- CO₂ capture and sequestration
- groundwater hydrology

Non-Petroleum Topics:

- low temperature phenomena
- luminescent materials
- microfluidics and nanofluidics
- nanoscience of non-petroleum materials
- nanotubes and graphene
- quantum dots
- social, economics, or history research
- subatomic physics

Applied Research Topics:

- data compilations and visualizations
- fuel additives
- paleoclimatology studies
- pipeline corrosion, coatings, and materials
- sensors and biosensors

If you have a question on whether or not your research is within the scope of the ACS Petroleum Research Fund please call 202-872-4481 and ask to speak to a Program Manager **before** submitting a proposal.