PRF Advisory Board Committee
Scientific Disciplines

Committee	Disciplines
1	**Synthetic Organic Chemistry** Synthetic organic methodology, organic and organometallic reagents and catalysts, asymmetric synthetic methods, "green" chemical synthesis.
2	**Geochemistry** Isotope geochemistry, organic and sedimentary geochemistry, marine geochemistry, diagenesis
3	**Inorganic Chemistry** Coordination, organometallic, and bioinorganic chemistry as it relates to the petroleum field. 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.
5	**Surface Science** Surface science, heterogeneous catalysis, thin films, porous materials, adsorption and diffusion, AFM, STM, XPS, PES, CVD and related techniques.
6	**Chemical Physics/Physical Chemistry** Chemical physics; theoretical chemistry including 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 dendrimers; organized media; and liquid crystals.
8	**Geology and Geophysics** Stratigraphy, sedimentology, paleontology, geomorphology, structural geology, flow through porous media, geophysics.
9	**Chemical and Petroleum Engineering** Chemical and petroleum engineering studies, process and operations control and design, fluid flow and multiphase flow dynamics, and related computations.
10	**Materials Science** Materials for efficient generation, storage or conversion of energy; synthesis, characterization, bulk properties and solid-state chemistry of these materials

Research topics which are NOT supported by ACS PRF include:

Patentable or directly commercializable research; applied research, such as development of new experimental/theoretical methods or development of devices; biomedical research; environmental remediation studies; research on anthropogenic effects of petroleum; groundwater hydrology; metabolic pathway research; nanoscience not directly related to petroleum-derived materials; pharmaceutical or drug-delivery studies; sensor design or biosensors; social research, economics, or history; superconductors, subatomic physics; whole-cell, organelle, tissue, organ, or whole organism studies; preparation of compounds for biological evaluation; low temperature phenomena; semiconductors; quantum dots.

Justification based on petroleum derived monomers is not sufficient. Motivation for the research should not be related to devices, for example petroleum-based conducting polymers, or organic semiconductors. An exception is photovoltaics.