



BROOKHAVEN NATIONAL LABORATORY

At Brookhaven National Laboratory, we all play a part in tackling the most important questions that face our nation and world today. With world-class facilities and experts in a variety of fields, we've created a legacy of seven Nobel Prize winning discoveries and countless breakthrough innovations. And we keep this legacy going every day by hiring those who are excited by innovation and pursue curiosity with passion.

Postdoctoral Research Associate Positions: Center for Hybrid Approaches in Solar Energy to Liquid Fuels (CHASE)

The Chemistry Division of Brookhaven National Laboratory (BNL) is hiring three Postdoctoral Research Associates in the area of artificial photosynthesis. Positions will be available starting in March-April 2021.

The postdoctoral research associates will join the newly DOE-funded Center for Hybrid Approaches in Solar Energy to Liquid Fuels (CHASE), a DOE Energy Innovation Hub led by the University of North Carolina at Chapel Hill (UNC). In addition to BNL, CHASE includes collaborators at Emory University, North Carolina State University, the University of Pennsylvania, and Yale University. The successful candidates will conduct basic research as part of the BNL CHASE team with a specific focus on (i) efficient coupling of semiconductor light absorption to molecular catalysis; (ii) the control of molecular catalysis by tuning of the microenvironment at the interface; and (iii) coupling of multiple molecular catalysts through cascade catalysis to generate liquid fuels from CO₂.

Candidates will require a Ph. D. in chemistry, chemical engineering or materials science, and extensive experience in one or more of the following areas: (i) Synthesis/characterization of organic compounds, inorganic, and organometallic coordination complexes. (ii) Homogeneous or heterogeneous catalysis of small molecule activation. (iii) Electrochemistry applied to mechanistic and kinetic studies in solution and at interfaces. (iv) Time-resolved spectroscopies such as UV/Vis transient absorption (TA), time-resolved infrared (TRIR), and time-resolved resonance Raman (TR³). (v) Radiation chemistry techniques, particularly pulse radiolysis. (vi) Synchrotron-based techniques (XAS, XPS, XRD, RIXS) for molecular and heterogeneous catalysts, including *in-situ* and *in-operando* methods. Experience in mechanistic studies of catalytic reactions is a plus.

To apply online, go to <https://jobs.bnl.gov>, search for keyword "CHASE" and select Job ID 2325.

Brookhaven National Laboratory offers a collaborative culture, a continuous learning environment, and an excellent benefits package (e.g. health plans, vacation, etc.).

To learn more about these and other BNL opportunities, visit <https://jobs.bnl.gov/>

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