

Post-doctoral Position: **Physical Chemistry and Rheology of Complex Fluids**
Yale Chemical Engineering

There is an opening for a postdoctoral research associate in the Osuji lab in Chemical Engineering at Yale University. The project is in the area of structure and dynamics of complex fluids. Specifically, it concerns investigation of colloidal interactions and rheology of colloidal suspensions composed of fractal particles such as carbon black or fumed silica. We seek to make quantitative relationships between adsorption behavior of dispersants on the particle surface and the rheology of the resulting gels. Additionally, the project will involve design of devices/instrumentation to enable high fidelity measurements of adsorption behavior. The group's interest in complex fluids spans a range of topics including time-dependent stresses and aging in colloidal gels, synthesis of hollow microcapsules using polyelectrolytes, flow of soft deformable capsules under strong confinement in microfluidic devices, particle-tracking micro-rheology and the effect of particle deformability on bulk suspension rheology.

Qualified candidates should hold a Ph.D. in chemical engineering, physics, materials science or a related discipline, or be within ~4 months of completion of their Ph.D. Particularly attractive candidates are strong experimentalists with a background in areas such as physical chemistry, rheology or soft matter physics.

The position is available immediately and will be open until filled. A standard initial appointment for a period of one year will be made. This appointment will be renewed subject to satisfactory performance and availability of funding.

Well-qualified and interested candidates should contact Chinedum Osuji – chinedum.osuji@yale.edu or visit <http://www.eng.yale.edu/polymers>