

People - Chemical Engineering

This page contains details of some of the people from the School of Chemical Engineering involved in the CMMCE.

[Professor Mike Adams \(/staff/profiles/chemical-engineering/adams-mike.aspx\)](/staff/profiles/chemical-engineering/adams-mike.aspx)

Measurement and modeling of liquid junctions, squeeze and capillary flows of complex fluids, discrete modeling of structured fluids

E-mail: M.J.Adams@bham.ac.uk (<mailto:M.J.Adams@bham.ac.uk>)

Research Interests:

[Dr Serafim Bakalis \(/staff/profiles/chemical-engineering/bakalis-serafim.aspx\)](/staff/profiles/chemical-engineering/bakalis-serafim.aspx)

Emitting Particle Tracking (PEPT) for the study of momentum transfer, flows in multiphase systems. Extending PEPT to tracking of multiple, freely moving particles.

E-mail: S.Bakalis@bham.ac.uk (<mailto:S.Bakalis@bham.ac.uk>)

Research Interests: Positron

[Professor Mostafa Barigou \(/staff/profiles/chemical-engineering/barigou-mostafa.aspx\)](/staff/profiles/chemical-engineering/barigou-mostafa.aspx)

Research Interests: Gas/liquid/solid mixing in mechanically agitated vessels; formation, flow and stability of foams, emulsions, and thin liquid films; rheology and microstructure of complex materials including blood and food products; multiphase flows including Positron Emission Tomography and Particle Tracking; engineering applications of Computational Fluid Dynamics.

E-mail: M.Barigou@bham.ac.uk (<mailto:M.Barigou@bham.ac.uk>)

[Professor Kevin Kendall \(/staff/profiles/chemical-engineering/kendall-kevin.aspx\)](/staff/profiles/chemical-engineering/kendall-kevin.aspx)

science and technology especially for domestic houses, solid oxide fuel cells (SOFCs), molecular adhesion and fracture, processing of ceramic particles, aggregation in colloidal systems, cementitious materials.

E-mail: K.Kendall@bham.ac.uk (<mailto:K.Kendall@bham.ac.uk>)

Research Interests: Fuel cell

[Professor Mark Simmons \(/staff/profiles/chemical-engineering/simmons-mark.aspx\)](/staff/profiles/chemical-engineering/simmons-mark.aspx)

Use of advanced flow diagnostic techniques in macro and microscale environments (Particle Image Velocimetry, Particle Tracking, Laser Induced Fluorescence, High speed videography) and data analysis Phenomenological modelling of two phase gas liquid flows at different length scales Single and multiphase mixing in laminar and turbulent (micro) flows

E-mail: M.J.Simmons@bham.ac.uk (<mailto:M.J.Simmons@bham.ac.uk>)

Research Interests:

[Professor Colin Thomas \(/staff/profiles/chemical-engineering/thomas-colin.aspx\)](/staff/profiles/chemical-engineering/thomas-colin.aspx)

Research Interests: Cell biomechanics, micromanipulation, image analysis, shear in bioprocessing. Measurements of the mechanical properties of biological materials. Novel applications of image analysis to the study of filamentous fermentations.

E-mail: C.R.Thomas@bham.ac.uk (<mailto:C.R.Thomas@bham.ac.uk>)

[Dr Joe Wood \(/staff/profiles/chemical-engineering/wood-joe.aspx\)](/staff/profiles/chemical-engineering/wood-joe.aspx)

catalytic reactions, including multiphase reactions, reactions in supercritical media and reactions accompanied by phase transitions. Experimental characterisation of catalysts using infrared spectroscopy and pulse chemisorption. Laboratory and pilot scale catalytic reaction testing, including flow diagnostics and reaction kinetics (Monoliths, trickle beds, stirred tanks). Environmental engineering, using reed beds and advanced oxidation processes to remove pollutants from wastewater.

E-mail: J.Wood@bham.ac.uk (<mailto:J.Wood@bham.ac.uk>)

Research Interests: Modelling of

[Professor Zhibing Zhang \(/staff/profiles/chemical-engineering/zhang-zhibing.aspx\)](/staff/profiles/chemical-engineering/zhang-zhibing.aspx)

Research Interests: Mechanical characterisation of micro-/nanoparticles, development of microsystem-based instruments, manufacture and preservation of probiotics and nutraceuticals: fermentation, drying, immobilisation and coating. Formulation of micro- and nano- particles: microencapsulation, bioencapsulation, stabilisation and controlled delivery. Fouling: biofilm growth and detachment, food fouling and control. Tissue engineering: cell mechanics, biomaterials, cell-substrate interactions and finite element analysis.

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