

C-Tech Innovation



English name: **C-Tech Innovation Ltd.**
Original name: **C-Tech Innovation Ltd.**

Capenhurst Technology Park
CH16EH Chester
United Kingdom

Industry is SME
Research organisation: Research organisation,

Website

<http://www.ctechinnovation.com>

Related Technology Datasheet

Title

Membrane (bio)fouling process control

For industry

Food production

Process development

Consulting

Machineries

For research organisation For Others

Separation processes

Stabilizing processes

Structure forming processes

Conversion processes

Biotechnology

Technology transfer and dissemination

Particular expertise in Microwave, Ohmic and Radio Frequency (RF) Heating

Related Facility Datasheet

Technology**Application field****Equipment available****Name**

Dave ellis

Function**E-Mail**

Send E-Mail

Expertise

Dave has worked as a dielectric heating engineer for C-Tech Innovation for over 20 years and has extensive expertise in the development of novel microwave and RF systems. One particular area of expertise is in RF forming and moulding of polymers and composites.

Professional Experience

- Use of RF heating for curing PVC plastisol injected into silicone rubber moulds to form automotive glazing gaskets
- Curing of polyurethane foam using RF to heat catalyst to accelerate the reaction
- Development of RF system to melt confectionary products, chocolate, cocoa butter
- Forming of polystyrene foam blocks using RF heating
- Pre-heating and forming of nylon automotive components for injection moulding and forming operations
- RF in line heating of corrugated board adhesive at up to 330ft/min in multi wall constructions
- RF curing of woven textile conveyor belting impregnated with PVC compounds
- Thawing and de-frosting of chicken and fish products using RF techniques
- Development of low cost matrix network for RF defroster using inductors rather than capacitive network
- Forming of composite panels of glass, fibre insulation and paper to produce insulation panels, building materials and medical products

Michael Harrison

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Mike is a Chemical Engineer with experience in heat transfer, mixing, separation, waste treatment technologies and chemical production techniques. Mike is particularly involved in the development of new Ohmic heating processes, and in new product development and commercialisation.

Professional Experience

- Responsible for engineering activities in the development of a wide range of electrotechnologies such as radio frequency and microwave processing of foods for drying, melting, pasteurising, reaction chemistry
- Responsible for engineering activities in the development of Ohmic heating for pasteurisation, sterilisation and cooking of food products
- Involved in the development of Ohmic heating in chemical processing and waste treatment technologies

Norman Maloney

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Norman is a Mechanical Engineer with 22 years experience working in an R&D and industrial environment on thermal processes, using combinations of steam, ohmic, microwave, RF and convective heating techniques. He is highly experienced in system design as well as equipment installation, commissioning and testing.

Professional Experience

- Design, installation and commissioning of ohmic heaters in food pasteurisation and cooking applications
- Development of ohmic and microwave chemical reactors
- Design of RF and microwave process equipment particularly screening, mechanical integrity and mechanical design
- Installation and commissioning of process plant, RF defrosters and cooking equipment, RF and microwave assisted baking ovens
- Design and commissioning of large pilot scale microwave snack food manufacturing process equipment
- Design and commissioning of microwave/RF assisted calcination / microwave assisted sintering kilns

Rachel James

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Rachel has a PhD in organic chemistry from Imperial College, London and has worked as a project manager at C-Tech Innovation for 5 years. Her key areas of responsibility include developing C-Techs capability in microwave and radio frequency heating of composites, polymers and adhesives.

Professional Experience

- Microwave and Radio Frequency processes for curing and moulding of materials; including fibre-reinforced composites and expandable polymers for packaging
- Extensive experience in development of tooling systems for use in RF and microwave processes (including materials properties)
- Experience in development of novel RF and Microwave equipment; including RF press and pressurised microwave systems
- Highly skilled research chemist with 8 years industrial experience in development and scale-up of speciality chemical synthesis

Stuart Dalrymple

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Stuart is a Chemical Engineer with 10 years experience working in R&D and industrial environments on fluid dynamics and heat transfer applications. His main work has focussed on development and commercialisation of separation and recycling technologies.

Professional Experience

- Design of Ohmic Heaters for the food industry.
- Application of ohmic heating technology to consumer products.
- Fluid flow and heat transfer simulation using CFD.
- Life cycle assessment and carbon footprinting.
- Process plant design, build and commissioning.

Yvonne Wharton

Send E-Mail

Yvonne has a Chemistry degree from the University of Edinburgh and has worked at C-Tech Innovation for 3 years; her work has mainly been focused on developing C-Tech Innovation's capability in the scale up of microwave chemistry.

Professional Experience

- 8 years experience working in the pharmaceutical industry developing routes to novel drug targets
- Design, synthesis and optimisation of routes to novel compounds using a wide variety of organic chemistry techniques and to high purity
- Extensive experience in the use of lab scale microwave systems
- Highly experienced in experimental design
- Development of large scale microwave flow chemistry rig to allow the scale up of chemical reactions

Source: <http://www.foodtech-portal.eu/index.php?title=Special:PdfPrint&page=C-Tech+Innovation>