

Chemical Processing Services Ltd, a new organisation pioneering the development of bio-based thermosets

With the ever-increasing awareness of the need to rectify the environmental damage inflicted on our planet, and the drive to prevent resource depletion, the development of new thermoset polymers from sustainable feedstocks is one part of the holistic approach that is required to fulfil this aim.

Paul H. Jones FRSC, founded Chemical Processing Services Ltd [CPS] as a breakaway business to house some of his latest Intellectual Property, and licence new patented technology focused on sustainability and/or an absence of specific toxins and carcinogens. Working with his favoured European IP Law firm, Mathys & Squire, he has had several of his patent applications accelerated through the UK Green channel due to the environmental benefits afforded by the new technology he is offering.

Paul stated, "Mathys & Squire are exceptional and their specialist expertise in chemistry and legal protection, has been invaluable in building in the necessary security to allow me to operate open licencing arrangements. They are outstanding partners and an essential element in my continuing strategy to generate new innovative, safer, and more sustainable products to move away from petrochemical reliance without compromising performance".

CPS has licensed new Globally Patented Furalkamine technology, that includes highly acid resistant cross-linking agents for epoxy resin that have been derived from a pentosan-rich waste biomass. This new chemistry encompasses a series of polymers with high new carbon bio content, and the range is continuously being extended. CPS followed this up with some further Patent applications including Poly-Mannich bases, Stoichiometric bio shift polymers, low temperature amido-amines and Bio-

Benzoxazines all at different stages of examination and approval. These products are being tested and applied in high performance coatings, and as matrix resins in fire resistant light weight composite panels for use in several areas of the transport sector. The newly designed polymers employed in this environmental quest are formulated from sustainable feedstocks, processed in accordance with good environmental principles, are already scalable, economically viable, and perform to the desired level.

CPS operates in conjunction with selected partners who share the same ethical standards, commitment, and drive towards compliance with UN Sustainable Development Goals. With extensive performance testing under the most arduous conditions, these materials are proving to be outstanding replacements for the current petrochemical products. Aside from generating products from sustainable sources and considering atom economy, waste elimination and catalysis to minimise energy consumption, CPS continuously reviews modification techniques for re-use and recovery strategies. Paul has developed products for the packaging coating sector, that enabled BPA free systems to be employed as internal lacquers and he is accustomed to horizon scanning in order to eliminate Substances of Very High Concern [SVHC's] and prevent regretful substitution. Some of the latest products being developed, include some new bio epoxy resins. Epoxy resins are ubiquitous, and these new green systems are being evaluated in a myriad of applications.

Alongside the development of these products and the licensing arrangements made for their manufacture, I know Paul would insist that we take the opportunity to support and promote the Catalyst Science Discovery Centre and Museum in Widnes. CPS and Bitrez are currently helping promote their excellent work in providing interactive exhibits to help bring science to people of all ages in an entertaining as well as educational manner. Visit <https://www.catalyst.org.uk/> for further details.

To find out more about Chemical Processing Services Ltd visit the website www.cps-consultancy.com/. Or for Mathys and Squire LLP visit <https://www.mathys-squire.com>

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