

Press release

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Croda wins 2023 Process Intensification Award for Industrial Innovation

EFCE, its Working Party on Process Intensification and the sponsor EUROPIC are pleased to announce that the 2023 Process Intensification Award for Industrial Innovation has been awarded to

“Continuous production of a functional Consumer Care ingredient”

developed by **Croda International Plc**, in the United Kingdom.

Croda has successfully converted the batch production of one of Croda’s key personal care products into continuous production using NiTech continuous reactor. This was achieved through collaborative development involving four organisations to understand and overcome the technical challenges required to move from a batch to continuous process.

Croda had gone through extensive trials at lab and on-site pilot scale. The pilot plant was designed and constructed utilising data from the lab experiments to deliver the first demonstration of this industrial process which was able to manufacture tons of product per day. By the end of the trials, the process had been run continuously by the production team in fully automated mode for more than two days, generating very little waste. A full industrial scale production unit has now successfully been commissioned at a Croda site.

The change enables a doubling of their production capacity without a building expansion, as well as showcasing a novel technology with potential applications worldwide in Croda’s manufacturing sites. In addition, the full-scale process delivered a saving of water and significant CO2 reduction compared to the batch process by delivering a more efficient continuous process with lower batch-to-batch variability and inline analysis.

The jury stated: “Croda developed a new process starting from laboratory and via pilot plant completing the cycle by ending in a full production plant. The project delivered significant benefits in both processing time, CAPEX and OPEX and reduced environmental impacts, fulfilling PI principles being faster, cheaper and better.”

Established in 1925, **Croda** (www.croda.com) is the name behind sustainable, high performance ingredients and technologies in some of the world’s most successful brands: creating, making and selling speciality chemicals that are relied on by industries and consumers everywhere.



CRODA

Croda is a FTSE 100 company with over 5,800 passionate and innovative employees, working across manufacturing sites and offices around the world with a shared Purpose to use Smart science to improve lives™. As part of this Purpose, and with around two thirds of its organic raw materials already from bio-based sources, Croda has committed to be the most sustainable supplier of innovative ingredients, becoming Climate, Land and People Positive by 2030.

The award was presented on 31 May 2023 at the 8th European Process Intensification Conference -EPIC 8 , held in Warsaw Poland on 31 May - 2 June 2023. Croda colleagues involved in the innovation are invited to give a presentation on 2 June 2023.

The 2023 Excellence Award in Process Intensification is generously sponsored by the **European Process Intensification Centre – EUROPIC**.



Ends

Related links

EFCE media centre (<http://www.efce.info/News>)

EFCE Working Party on Process Intensification (https://efce.info/WP_PI.html)

8th European Process Intensification Conference -EPIC 8
(<https://epic2023.pw.edu.pl/>)

Notes to media

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About chemical engineers

Chemical, biochemical and process engineering is the application of science, maths and economics to the process of turning raw materials into everyday products. Professional chemical engineers design, construct and manage process operations all over the world. Oil and gas, pharmaceuticals, food and drink, synthetic fibres and clean drinking water are just some of the products where chemical engineering plays a central role.

About EFCE

Founded in 1953, The European Federation of Chemical Engineering (EFCE) is a non-profit-making association, whose object is to promote co-operation in Europe between non-profit-making professional scientific and technical societies in 30 countries for the general advancement of chemical engineering and as a means of furthering the development of chemical engineering. See www.efce.org

About the sponsor

EUROPIC's mission is to support its members by structurally addressing the global trends and challenges facing the process/chemical industry by accelerating knowledge and technology transfer in the field of process Intensification (PI) and its application in the real world. EUROPIC's products and services are inextricably linked with tackling specific global challenges such as: sustainability, digitalisation, manufacturing of new advanced materials and modularization. It is a unique industry-driven platform set up in 2009 by a coalition of major European businesses. See <https://europic-centre.eu/>