



2019 Kirkpatrick Chemical Engineering Achievement Award Finalists Announced

Finalist technologies to be presented by Chemical Engineering magazine at the 2019 Chem Show

WESTPORT, Conn., July 26, 2019 – Chemical Engineering magazine announced finalists for the 2019 [Kirkpatrick Chemical Engineering Achievement Award](#). Chemical Engineering honors commercialized innovative technology with the Kirkpatrick award every two years at the [Chem Show](#). This year a winner be chosen from six finalists.

This year's session, titled, *The 2019 Kirkpatrick Award: Outstanding Scale-up Achievements*, will be presented during the Chem Show Seminar Program on Wednesday, October 23rd from **11:15 AM - 1:00 PM in Room 2D12/13**. Attendees can register to attend the 2019 Chem Show, held at the Javits Center in New York City, October 22-24, and the prestigious Kirkpatrick Award finalist presentations by visiting the [Chem Show website](#). Registration for attendees is free for a limited time.

The Kirkpatrick Chemical Engineering award has recognized noteworthy innovation and successful commercialization biennially since 1933. Attendees will listen to brief presentations of the finalists' entries.

The 2019 finalists are as follows:

Braskem — Renewable EVA. A partially renewable ethylene vinyl acetate (EVA) was co-developed with Allbirds (a shoe company), where sugarcane, instead of oil, was used as a raw material. A process was developed to produce a wide range of EVA and EVA-rubber products using a polymer plant that was designed to produce polyethylene. A commercial product using the new EVA was launched in 2018.

Dow Packaging and Specialty Plastics — Symbiex adhesive technology. The trademarked Symbiex technology creates multilayer packaging for foods and more by gluing together layers of different plastics to create a laminate. Developed together with Nordmeccanica, this is a new lamination concept where the two parts are not mixed prior to application but are applied independently. The cure starts when the two coated films are brought together to form the multilayer film.

Johnson Matthey — Catacel SSR Structured Steam Reforming Catalyst. Increased demand for hydrogen has operators of steam methane reformers (SMRs) pushing their systems to maximum capacities and experiencing limitations in temperature, pressure and feed flows. The patented Catacel SSR is a catalyst-coated metal foil alternative to catalyst-impregnated pellets that can decrease pressure drop, and increase heat transfer and catalytic activity. Overall plant throughput can be increased up to 20% without capital investment for a new plant.

LanzaTech — Gas Fermentation Technology. This process converts carbon-rich gas streams to products using proprietary microbes that feed on gases rather than sugars, as in traditional fermentation. The source of the gases can include industrial emissions and more. LanzaTech's process takes waste carbon and produces chemicals that serve as building blocks for products such as rubber, plastics and fuels. Third-party assessments have shown greenhouse-gas-emissions reductions by over 70% compared to equivalent products from fossil carbon.

Reliance Industries — Simultaneous Production of Benzene and Gasoline from C-6 Heart Cut of FCC Gasoline. To meet the low levels of benzene allowed in gasoline, Reliance Industries and the Indian Institute of Petroleum jointly developed technology for processing the C6 heart cut of FCC (fluid catalytic cracking) gasoline based on the principles of extractive distillation without the requirement of a pre-processing step. Said to be the first of its kind, this technology produces gasoline that meets U.S. benzene limits, while also recovering high-purity benzene.

TechnipFMC — Direct Heating Unit (Flameless Combustion). This technology, jointly developed with support from Total Petrochemical and Shell Oil, is said to be a groundbreaking technology for adding heat to high-temperature processes. Unlike conventional furnace burners where fuel and air are combined at a single point, in this process, fuel is added incrementally to a high-velocity air stream via multiple injections over an extended reaction zone. As a result, the fuel reacts in a controlled manner at significantly lower temperatures than classic combustion.

About The Chem Show

The Chem Show is the chemical process industries' main event for processing technology. Held biennially, the Show brings together hundreds of exhibitors and thousands of industry attendees from all segments of the CPI as they seek ways to optimize their process operations. The Show offers a unique forum where leading manufacturers and suppliers can demonstrate their latest equipment, systems and products, and where engineers and plant managers can explore hundreds of new products and solutions. The next Chem Show will be held October 22-24, 2019 at the Javits Center, New York.

For more information, visit chemshow.com and follow [@chemshow](https://twitter.com/chemshow) on Twitter, [chem_show](https://www.instagram.com/chem_show) on Instagram and find us on [Facebook](https://www.facebook.com/chemshow).

For more information regarding Chemical Engineering magazine and the Kirkpatrick Award, visit <https://www.chemengonline.com/kirkpatrick-award/>.

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