



PRESS RELEASE

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NXTLEVVEL Biochem's Steve Block Receives 2022 American Coatings Award

Steve Block, NXTLEVVEL Biochem's vice president of Business Development, received the 2022 American Coatings Award for the most outstanding conference paper on April 5 during the Plenary Session of the 2022 American Coatings Conference in Indianapolis, Ind. For his paper titled, "The Use of Levulinates as Coalescing Agents in Water-based Coatings," Block was presented a sculpture and a \$2,500 cash award.

In his technical paper, Block addresses how development and implementation of affordable and sustainable large-scale operations for the conversion of renewable resources to chemical building blocks is becoming increasingly urgent and essential to reducing global dependence on fossil fuels and minimizing carbon footprint. Citing NXTLEVVEL Biochem's successful implementation of commercial-scale manufacturing of second-generation, biomass-derived chemicals — with novel technologies in bio-solvents based on the conversion of biomass to derivatives of levulinic acid that were originally developed by GFBiochemicals — he highlights levulinic acid derivatives as key technologies for moving toward petrochemical-free chemistry.

Block explains that, produced from agricultural waste, derivatives of levulinic acid, such as butyl levulinate and ethyl levulinate propanediol ketal, can be used as sustainable alternatives to coalescing agent materials, such as 2,2,4-trimethyl-1,3-pentanediol monoisobutyrate, 2,2-dimethyl-1-(methylethyl)-1,3-propanediyl bis(2-methylpropanoate) and triethylene glycol bis(2-ethylhexanoate). His paper provides a detailed discussion of the technology, application case studies, and environmental impacts of this technology, demonstrating that performance of these levulinic acid derivatives, along with the resultant lower use level in many resin systems, address industry needs to reach targeted cost-performance criteria with sustainable chemistry.

Block reports that levulinic acid derivatives' limited water solubility assists in lowering the minimum film formation temperature (MFFT), as well as frequently enhances properties of the film, notably the hardness. His paper also emphasizes that levulinates have an excellent health, safety and environmental profile and contain up to 100 percent bio-based carbon, aiding their position to replace traditional petrochemical coalescing agents.

Block has been active in the specialty chemicals industry for nearly 40 years and specializes in developing strategies to commercialize new products. During his career, he has led both technical and commercial teams bringing new chemical technologies to market and creating strategic partnerships with a focus in home care, personal care, institutional and industrial cleaning, paints and coatings, and agricultural chemicals. Block earned a BS in Chemical Engineering from Missouri University of Science & Technology and an MS in Industrial Engineering and Engineering Management from Wichita State University.

For more information about the American Coatings Show & Conference, visit <https://american-coatings-show.com/conference/>.

The American Coatings Show & Conference is organized by the American Coatings Association and Vincentz Network. The biennial trade show and technical conference is dedicated to serving as a global business platform and educational forum for the paint and coatings industry, offering a complete spectrum of current and future trends and technologies.