

Chemistry In Emerging Technologies Lectures

Peckham Hall, Rm. 12 - Nazareth College, 4245 East Ave., Pittsford, NY

Monday, January 20, 2014

Green Chemistry - Polymers from Carbon Dioxide

Dr. Ronald Valente, Vice President, R&D
Novomer, Inc. (www.novomer.com)

7:00 pm: Lecture

Novomer, with headquarters in Waltham, MA and R&D facilities in Ithaca, NY and the Eastman Business Park in Rochester, is a new materials company pioneering a family of competitively priced high-performance green plastics, polymers and other chemicals. With proprietary catalyst technologies and a world-class scientific team, Novomer's groundbreaking work allows carbon dioxide or carbon monoxide to be cost-effectively transformed into a wide variety of industrial products. Traditional plastics like polyethylene and polypropylene are simply long chains of carbon molecules, which are derived from crude oil or natural gas. Novomer, using its proprietary catalyst system, is able to produce many of these carbon molecules from CO₂, which is usually inert, at low temperature and pressure in a very efficient manner and thus reduce the need of fossil fuel-based raw materials. Polymers produced using this technology contain up to 50% CO₂ by mass, sequestering this harmful greenhouse gas from the environment for the life of the product, mitigating global warming and climate change. In addition, waste CO₂ is a very low cost starting material that enables competitively priced materials.

Dr. Ronald Valente, Novomer's Vice President, Research and Development, has more than 25 years of research, development and manufacturing experience. Most recently, he served as Division Manager for Rochester Film Base Manufacturing, the manufacturing operations for all of Eastman Kodak acetate and polyester film base. Prior to his Manufacturing Leadership position, he was Division Director of the Worldwide Process R&D efforts for specialty chemicals at Kodak. There he emphasized rigorous operational methods to produce innovative, robust and commercially successful chemical processes. Dr. Valente has a Ph.D. in Organic Chemistry from the University of Rochester.

8:15 – 9:30 p.m.: Reception / Poster Session – Peckham Hall Lobby

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