Resin Wafer Technology Wins FLC Award

Biobased chemicals and biofuels are a clean and sustainable alternative to oil and gas consumption. However, conventional bioprocessing technologies are expensive and require energy-intensive steps to recover these products; they also generate large waste streams. Controlling the processing costs is critical to the commercial success and growth of these product markets, especially if they are to be cost-competitive with fossil-based products.

Argonne biochemical engineer Seth Snyder holds Argonne's resin wafer technology..

The Challenge

To develop an electrodeionization technology that will significantly reduce the cost of producing clean energy and the amounts of chemicals and water used in industry.

The Solution

Argonne's patented technology allows for the deionizing or the continuous removal of charged products, like organic acids from aqueous streams, and eliminates the requirement to add neutralizing agents.

The Results

Argonne National Laboratory received a Federal Laboratory Consortium (FLC) Award for Excellence in Technology Transfer for this separations technology. A team led by Argonne biochemical engineer Seth Snyder developed the innovative resin wafer electrodeionization technology to significantly reduce the cost of producing clean energy and the amounts of chemicals and water used in industry.

Nalco Company has licensed the technology. Archer Daniels Midland will be one of its first end users.

***"Increasing the use of biobased products will provide a home grown energy source, reduce greenhouse gas emissions, and lower energy costs,"* said biochemical engineer Seth Snyder.**

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