

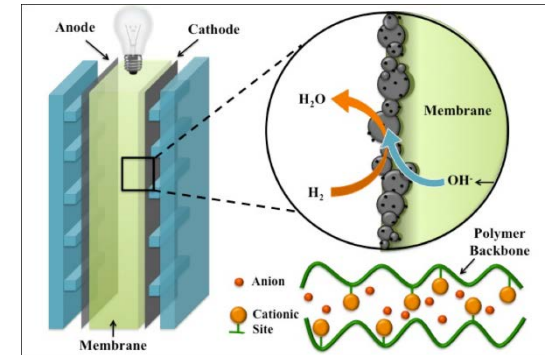
Ecolectro, Inc.

In 2015 Gabriel Rodriguez-Calero, Ecolectro CEO, received a CCMR JumpStart award to work with Prof. Geoff Coates, Chemistry. Their goal was to demonstrate how this alkaline anion exchange membrane (AAEM) technology will fit into the existing electrolyzer and Fuel Cell market.

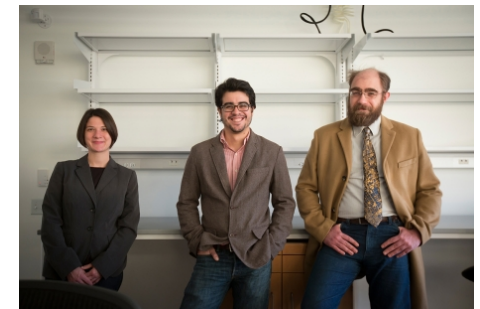
Result: Seven different polymer membranes were synthesized. The chemical, electrochemical and mechanical properties of each sample were analyzed. A product data sheet summarizing the data was produced. The data is used to compare Ecolectro's alkaline anion exchange membranes with other commercially available membranes currently used for hydrogen production and fuel cell systems.

Market: The hydrogen production market is estimated to be \$140B in 2017, and the hydrogen fuel cell market 1.3B in 2017.

Post-project activities: Ecolectro has been awarded a phase 1 SBIR from NSF to study and improve the synthetic process used to produce AAEMs. As of January 2016, the company had 3 employees, had moved into the McGovern Incubator, had participated in NEXUS-NY's second cohort, and signed a license for the technology from Cornell. In 2017, Ecolectro won \$150,000 from the Grants for Growth Initiative.



Schematic representation of an alkaline anion exchange membrane fueled by methanol



Jason Koski/University Photography
From left, Ecolectro's Kristina Hugar, Gabriel Rodriguez-Calero and Robert Lewis enjoy their new laboratory space at the McGovern Center.

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