

OriginOil Announces Breakthrough Dynamic Lighting Process

Los Angeles, CA July 15, 2009 – OriginOil, Inc. (OOIL), the developer of a breakthrough technology to transform algae, the most promising source of renewable oil, into a true competitor to petroleum, today announced a breakthrough Dynamic Control System designed to respond continuously to the algae's behavior. This invention improves energy efficiency and growth rates by ensuring the right types and amounts of light are used at all times as the algae grows to maturity.

"This is a true bio-feedback system," said Scott Fraser, VP Operations and one of the inventors of the process. "The algae lets the controller know what it needs as it needs it, creating a self-adjusting growth system."

At the heart of the system is a programmable controller that receives information from multiple sensor types reading the algae culture. The controller, which can be programmed for specific algae strains, responds by sending out commands to change lighting parameters such as intensity, pulsing frequency, and duty cycle. OriginOil's existing automation of the nutrient delivery process [[video](#) [1]] will be integrated in the final version of the Dynamic Control System.

The new lighting automation takes advantage of a new generation of Light-Emitting Diodes (LEDs), which OriginOil researchers have learned greatly improve productivity in dense cultures, and which also deliver the accurate frequency tuning and instant-on capability needed for a true feedback loop.

"We are currently using the new Dynamic Control System to test many lighting variations such as concentration, angles, distribution, and pulsing intervals," said Dr. Vikram Pattarkine, OriginOil CTO. "We expect this study to yield a wealth of data about what works best in algae lighting."

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[1] <http://www.originoil.com/multimedia/player.php?f=oo/originoil-automated-growth-2009.flv&w=640&h=360>

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