

## Zymergen Reimagines Electronics with Breakthrough Bio-fabricated Materials

### *Unveils Bio Based Electronics Film, Further Expanding Portfolio of Bio-derived Materials*

EMERYVILLE, Calif, April 1, 2020 – Today Zymergen is launching **Hyaline**, a revolutionary new film for electronics applications. This breakthrough bio-manufactured product has successfully been used in flexible circuits, display touch sensors and printable electronics, and by merging the benefits of advanced bio-fabrication with traditionally generated materials, the new Hyaline film paves the way for more sustainable, biologically produced products that are expected within the coming year. This is the first product co-created by both Zymergen and development partner Sumitomo Chemical Inc., and Zymergen's first standalone product to be sold commercially.

"Sumitomo Chemical has been looking for a partner to expand the portfolio of films for the electronics space that meet the latest and future requirements of our customers," said Mr. Isao Kurimoto, Executive Officer of Sumitomo Chemical. "We are very happy to leverage the bioengineering capabilities from Zymergen to develop new products."

Key uses and advances in the Hyaline product:

- **Touch Sensors:** unrivaled combination of mechanical, physical and optical properties that enables durable full-screen touch sensors in flexible/foldable devices and allows for higher ITO annealing temperatures in manufacturing, increasing capacity
- **Optical Filters:** thinner film with high temperature properties to enable faster processing times in manufacturing
- **Printed Electronics:** completely transparent, high temperature printed electronics - including Flexible Printed Circuit Boards (PCB) - that eliminate epoxy/ acrylic adhesive layers to create an optimized system that is 30% thinner and more flexible, as well as solderable using standard reflow soldering

"Hyaline film truly shows differentiated and sustainable performance with respect to optical and mechanical properties that have not been available before," said Richard Pieters, President of Products for Zymergen. "We continue our work with Sumitomo to introduce additional biologically derived films, while working in parallel on a full portfolio of high-performance adhesives and coatings for the electronics industry."

Using machine learning, automation and its powerful technology platform, Zymergen's revolutionary process produces better performing materials in a way that is both less expensive and more sustainable, representing the potential to disrupt entire markets and categories.

"We believe that our biological innovation will have a transformative effect on people's welfare: improving the objects that surround them, the products they consume, the devices they use, and the natural world we all live in," said Zymergen CEO Josh Hoffman. "For the last hundred years, industries have largely relied on petroleum-based manufacturing, but we're leading a new wave of innovation by reimagining how materials are produced through biology. Today we're not just announcing new materials – we are making a promise that in 2020 consumers will begin to see, touch and use new products inspired by nature."

**About Zymergen**

Zymergen is a science and material innovation company rethinking biology and reimagining the world. A World Economic Forum Tech Pioneer, Zymergen partners with nature to create never-before imagined materials and products across industries – from agriculture to electronics, consumer care to pharmaceuticals, and more. The company creates sustainable materials that are in use today, delivering value for Fortune 1000 companies with over \$1 billion worth of products using Zymergen microbial innovations sold to date. At Zymergen we make tomorrow. [www.zymergen.com](http://www.zymergen.com)

**About Sumitomo Chemical Inc.**

Sumitomo Chemical is one of Japan's leading chemical companies, offering a diverse range of products globally in the fields of petrochemicals, energy and functional materials, IT-related chemicals and materials, health and crop science products, and pharmaceuticals. At present, the Sumitomo Chemical Group, including over 100 subsidiaries and affiliates with over 33,000 employees, provides products worldwide that support a wide variety of industries and help people's daily lives.

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