

Sunthru LLC: Fulfilling the Promise of Aerogel Windows

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Sunthru LLC was founded as a result of a collaboration initiated in 2001 between mechanical engineering and chemistry faculty and undergraduate students at Union College. The group at Union had developed and patented a rapid supercritical extraction method (RSCE) which uses a hydraulic hot press and stainless steel mold to make aerogel monoliths [1, 2]. Silica aerogel monoliths prepared via this method have excellent optical and thermal properties [3]. The process is fast, simple and easily automated, which makes it amenable to large-scale fabrication applications. In 2013, Sunthru licensed this technology with the goal of scaling the method to make large, high-quality, cost-effective, aesthetically-pleasing aerogel monolith systems for use in fenestration applications. With seed funding from NSF (STTR) and the New York State Energy Research and Development Authority (NYSERDA), Sunthru has scaled-up the production of aerogel monoliths and has produced 30 x 30 cm aerogel-based window prototypes [4]. Two Union College Aerogel Lab alumni recently joined Sunthru and there is a new focus on utilizing the years of experience and advancements at Sunthru to bring a premium aerogel window product to the fenestration market. The long-term vision of Sunthru LLC is to be the premier high-performance supplier of daylighting window systems, and be prominent in applications where energy efficiency and daylight transmission are key requirements. This presentation will highlight the process of transitioning from basic research to commercialization and Sunthru's plans for the future.

References:

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