

NEWS RELEASE

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For Immediate Release

Santa Barbara Infrared Announces Unprecedented Infrared Emissivity for Blackbodies & Cold Shields

- SBIR to premiere the ultra-black surface coating that provides the world's best infrared emissivity at SPIE's Photonics West, Jan. 31 - Feb. 2, Moscone Convention Center, San Francisco in booth # 5037.

SANTA BARBARA, CA - January 17, 2017 - Santa Barbara Infrared, Inc. (SBIR - www.sbir.com), a leading manufacturer of advanced infrared (IR) and electro-optical (E-O) test hardware for aerospace and defense, announces a new ultra-black surface coating technology that improves infrared emissivity in the midwave-infrared (MWIR) and longwave-infrared (LWIR) spectral wavelengths. The unprecedented effective emissivity utilizes the **Vantablack® S-VIS** coating from Surrey NanoSystems (United Kingdom) for blackbody calibration sources and cold shields. In the MWIR (from 3 to 5 microns), emissivity is greater than 99.8 percent (± 0.1 percent); in the LWIR (from 8 to 12 microns), it is greater than 99.5 percent (± 0.15 percent). SBIR now offers the Vantablack coating for terrestrial blackbody applications worldwide under an exclusive licensing agreement with Surrey NanoSystems.



Vantablack is the world's blackest surface coating material for the ultraviolet (UV) to far-infrared (FIR) spectrum. It employs an innovative nanomaterial structure that absorbs virtually all incident light. Developed for space-borne imaging applications, it offers exceptional IR absorption and excellent thermal, mechanical and environmental stability, making it ideal for the most demanding applications. The new material has already achieved space heritage with its recent deployment on an Earth-observation satellite.

The previously-unachievable emissivity levels on a flat-plate blackbody source provide improved radiometric accuracy for the calibration of IR cameras. Additionally, stray light

reduction in baffles for cold-shield designs and IR radiation applications will also benefit from this novel technology.

Steve McHugh, president of SBIR, notes, "We are excited to announce our exclusive rights agreement with Surrey NanoSystems for the use of the ultra-black Vantablack. The superb broad-band absorption of the coatings and the highly-uniform deposition layer help us create blackbody sources that offer extremely high radiometric performance without caveats - greatly enhancing ease of use and accuracy. The new coating will improve the performance and utility of SBIR's precision E-O instrumentation, reinforcing our leadership position in military, aerospace, IR/FLIR testing and simulation markets. We are delighted to offer this unique product in all our blackbody products."

Surrey NanoSystems' CEO David Wong comments, "We're really pleased to have Vantablack recognized by SBIR, which has a reputation built on performance and precision. We're also delighted to have a partner to simplify procurement and provide local support for Vantablack coatings in North America. We see this as crucial to serving such an important market."

For a close-up view of a Vantablack coating, go to: youtube.com/watch?v=PGjJLI2JYpE. For more information about Santa Barbara Infrared's blackening coating technology for blackbodies and cold shields, please visit: www.sbir.com or call +1 805-965-3669 today.

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ABOUT THE COMPANIES:

Santa Barbara Infrared Inc. (SBIR - www.sbir.com) designs and manufactures the most technologically advanced infrared and electro-optical (EO) test instrumentation available. Its broad line of innovative products supports testing of military and commercial sensor systems and is used worldwide in laboratory, production, depot and field-test applications. Founded in 1986, SBIR quickly became the leader in the EO test instrumentation field. In 1999, SBIR became part of HEICO Corporation, an aerospace company based in Hollywood, Florida. [HEICO Corporation](http://www.heico.com) is a rapidly growing, technology-driven company that has been engaged in niche market segments within the aerospace, aviation and electronics industries for more than 40 years. Additionally, HEICO has been named on Forbes' Best 100 Small Companies list and 200 "Hot Shot Stocks" list routinely. SBIR continues to maintain its leadership position within the test instrumentation field and is the preferred supplier to many of the major domestic and international manufacturers of EO sensors and systems. SBIR's focus is to provide well-engineered, cost-effective hardware and software solutions to the EO community. Extensive design capabilities cover the spectrum of infrared, laser, visible and dynamic-scene projection applications.

Surrey NanoSystems (www.surreynanosystems.com) combines the best of British ingenuity and materials science for use in the development, growth and commercialization of strategically important nanomaterials, and particularly in the development and commercialization of super-black coatings. The company was founded in 2006 as a spinout from the University of Surrey, and is backed by some of the United Kingdom's most successful IP commercialization and venture capital providers including IP Group PLC, Octopus, NewWave Ventures and Parkwalk Advisors. Located near Brighton in the United Kingdom, the company operates a modern, cleanroom-based nanomaterials research and production facility. For more information, please contact Surrey NanoSystems, Euro Business Park, Building 24, Newhaven, BN9 0DQ, UK. tel: +44 (0)1273 515899 or email: enquiries@surreynanosystems.com; Media contact: Ben Jensen, tel: +44 (0) 1273 515899.