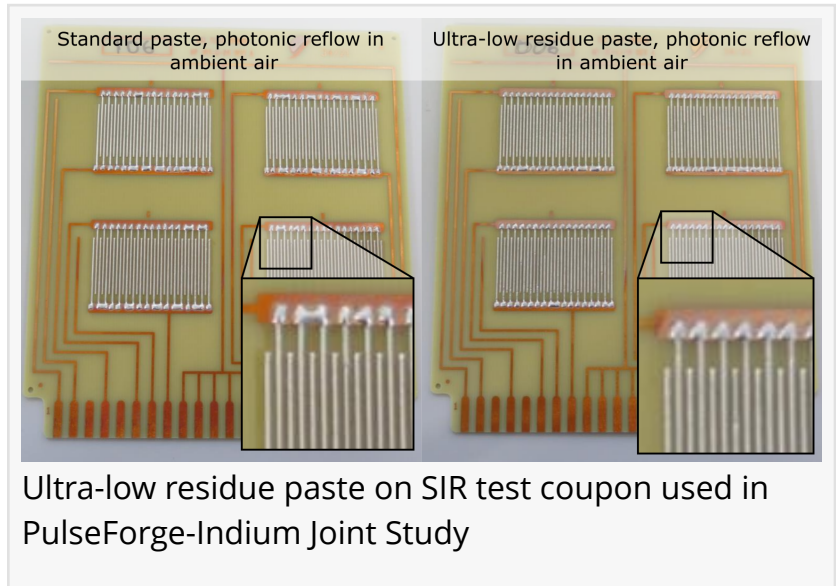


PulseForge and Indium Corporation Present Joint Study on Optimizing Photonic Soldering Processes at IPC APEX 2024

"Optimization of Photonic Soldering Processes for SIR Performance" joint study showcased work to revolutionize soldering processes in electronics manufacturing

AUSTIN, TEXAS, UNITED STATES, June 10, 2024 /EINPresswire.com/ -- [PulseForge](#), a leader in photonic curing solutions, and [Indium](#) Corporation, a premier materials supplier to the electronics assembly industry, presented exciting findings from their collaborative research at the 2024 IPC APEX Expo in Anaheim, California.



The [joint study](#), "Optimization of Photonic Soldering Processes for SIR Performance," showcased pioneering work to revolutionize soldering processes in electronics manufacturing. With

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Our collaborative research underscores transformative potential of photonic soldering in electronics manufacturing. We can achieve superior soldering outcomes while streamlining production processes.”

Jonathan Gibson

objectives centered on demonstrating the viability of photonic soldering using commercially available SAC 305 no-clean pastes, the study sought to qualify Surface Insulation Resistance (SIR) performance for said pastes while establishing a framework for optimizing photonic process conditions.

Key findings from the study include:

Surface Insulation Performance: Test circuits passed IPC J-STD-004B/C standards for surface insulation performance with the appropriate selection of photonic process conditions, indicating the efficacy of photonic soldering in

achieving desired soldering outcomes.

Ultra-Low Residue Pastes: The study revealed that ultra-low residue pastes are well-suited to the ultra-short process cycle times achievable with photonic soldering, emphasizing the compatibility between paste characteristics and photonic soldering methodologies.

Reduced Inert Atmosphere Requirements: Unlike traditional oven soldering methods, photonic soldering exhibited significantly reduced inert atmosphere requirements. This reduction is attributed to the shorter cycle times of photonic soldering, which limits oxidation during the soldering process. Consequently, ambient air can often replace nitrogen, streamlining the soldering process without compromising quality.

Mr. Jon Gibson, CEO at PulseForge, commented on the study's implications, stating, "Our collaborative research with Indium Corporation underscores the transformative potential of photonic soldering processes in electronics manufacturing. By optimizing process conditions and leveraging advanced materials, we can achieve superior soldering outcomes while streamlining production processes."

"Through the joint study with PulseForge, we were able to collect more practical knowledge on how our industry-leading ultra-low residue solder pastes can be used and optimized for this emerging technology," said Ross Berntson, President and COO of Indium Corporation®. "From One Engineer to Another® is our motto, and we believe in close collaboration – with our customers and industry partners like PulseForge – to bring optimal performance and results while advancing technology."

The findings from this study mark a significant advancement in the field of electronics assembly, paving the way for enhanced efficiency, reduced environmental impact, and improved product quality.

For more information about PulseForge and Indium Corporation, visit their websites at www.PulseForge.com and www.indium.com.

About PulseForge

PulseForge is a leading provider of photonic processing solutions for the electronics industry. Leveraging cutting-edge technology, PulseForge enables manufacturers to achieve superior results in soldering and surface treatment processes while optimizing efficiency and sustainability.

About Indium Corporation

Indium Corporation® is a premier materials refiner, smelter, manufacturer, and supplier to the global electronics, semiconductor, thin-film, and thermal management markets. Products include solders and fluxes; brazes; thermal interface materials; sputtering targets; indium, gallium, germanium, and tin metals and inorganic compounds; and NanoFoil®. Founded in 1934, the company has global technical support and factories located in China, Germany, India,

Malaysia, Singapore, South Korea, the United Kingdom, and the U.S.

For more information about Indium Corporation, visit www.indium.com or email jhuang@indium.com. You can also follow our experts, From One Engineer To Another® (#FOETA), at www.linkedin.com/company/indium-corporation/.

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