

MesoGlue: Low Temperature Metallic Joining Solutions

A high performance replacement for welding, soldering, brazing and glues



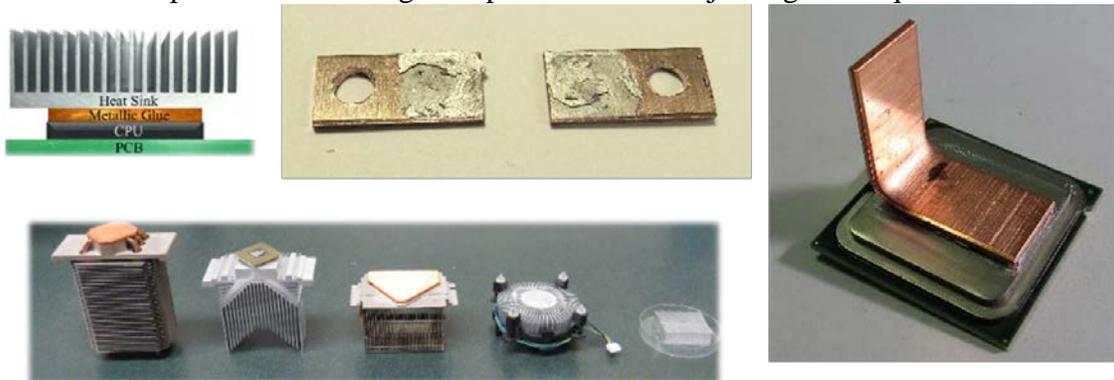
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Dr. Stagon is an Assistant Professor of Mechanical Engineering, University of North Florida and the Founding Partner and Chief Technologist, MesoGlue LLC., a start-up company based on Dr. Stagon's revolutionary patented advance in "cold soldering" Jacksonville, FL

Motivation: Soldering, brazing, and welding require heat addition to the parts being joined, operator skill, and significant capital at scale. Polymeric adhesives, like "super glue", are inexpensive and easily applied, but simply do not

meet existing performance requirements like strength, chemical resistance, and air tight sealing. Commercial and industrial applications require a product that marries the advantages of both.

The Solution is MesoGlue: Fully metallic glue with the ease of application of polymeric adhesives and the performance of high temperature metallic joining techniques.



Research and Development at University of North Florida: Basic scientific research is carried out in Stagon Lab at UNF, in conjunction with Northeastern University. Research has so far resulted in three connected patent applications and one peripheral patent application (UNF is assignee). Over the last four years, more than 20 undergraduate students and four graduate students have participated in the effort, resulting in 13 peer reviewed publications, five with undergraduate coauthors, for a total of over 25 impact points, in esteemed journals like *Nature Scientific Reports*. **MesoGlue has been featured in more than 200 news articles, spanning the globe**, including *Popular Mechanics*, *TechCrunch*, *Gizmodo*, *Motherboard*, and *Smithsonian*. **Business Development:** MesoGlue LLC currently employs a full time CEO and one full time technician. MesoGlue LLC has entering into exploratory IP agreements with 10 companies in the United States, and looks to expand to Asia within the next year. The projected revenue model is built upon soul-source sale of feedstock and MesoGlue specific processing equipment, as well as the development of partner specific solutions.