

Laser Ignition of Reaction Synthesis Systems

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Summary: Use of a tunable laser to initiate a self-propagating high-temperature combustion reaction

Description: This work describes the use of a tunable laser to in order to initiate a self-propagating high-temperature (SHS) combustion reaction. SHS synthesis is a processes that utilizes an exothermic synthesis to create a self-sustaining reaction. The process results in the formation of high purity products that are formed in a lower energy process with reduced material costs and overall manufacturing.

Main Advantages of this Invention:

- Can provide extra enthalpy to overcome high activation barriers
- Flexible and Portable
- Does not require large power sources

Potential Areas of Application:

- Biomedical
- Welding
- Manufacturing

ID number: 13001

Intellectual Property Status: US utility patent pending (application #14/168,901)

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Opportunity: We are seeking an exclusive or non-exclusive licensee for implementation of this technology.

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