Energy Conversion System

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Categories:
- Electrical Engineering
- Mechanical Engineering

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- Electrical Engineering
- Energy Converter
- Mechanical Engineering
- Thermoacoustics

Thermoacoustic engines use high-amplitude sound waves to create heat and move it from one place to another. Current thermoacoustic engines use fluid or gas for the median during energy conversion. This can be disruptive for electrical energy generation. Also, the current engines are prone to failure of mechanical mechanisms because of all the moving parts that the engine is made up of. Failure of these mechanisms can be very costly and causes the machine to be inefficient. There is a need for a better thermoacoustic engine.

Researchers at Purdue University have developed a new kind of thermoacoustic engine. This thermoacoustic engine uses a solid as a medium during the conversion process. Doing this removes any moving parts within the machine. This means it is basically impossible to have mechanical mechanism failures with this new kind of thermoacoustic engines. This will save money and make the whole process more efficient. This machine is more reliable than current thermoacoustic engines.

Advantages:
-No moving parts
-Reliable
-Free of failure mechanisms

Potential Applications:
-Thermoacoustic engines
-Energy conversion

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Intellectual Property:

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