

A NEW THERMODYNAMIC CONCEPT: THERMOACOUSTIC REFRIGERATORS

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ABSTRACT

A sound wave in a gas is usually regarded as consisting of coupled pressure and motion oscillation, but temperature oscillations are always present, too. When the sound travels in small channels, oscillating heat also flows to and from the channel walls. The combination of all such oscillations produces a rich variety of "thermoacoustic" effects. In this work we presents a simple thermoacoustic device: thermoacoustic engine.

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