Subject: Graphene Speakers
Posted by Chicken on Wed, 26 Sep 2012 20:24:56 GMT
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I just read this article on graphene speakers, which use oscillations in heat energy that create air pressure changes and therefore sound. I'd be interested to hear how it sounds.

Subject: Re: Graphene Speakers
Posted by audioaudio90 on Thu, 27 Sep 2012 13:44:01 GMT
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I would like to hear it too. Being able to put a speaker on such a flexible substrate would be useful, but it's got to be able to faithfully reproduce the frequencies, and since he's only run milliamps across it, I want to know how well it works at higher currents.

Subject: Re: Graphene Speakers
Posted by Nymeria on Tue, 09 Oct 2012 16:45:40 GMT
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That is interesting. I can see how it works, since air molecules move further apart when heated and closer together when cooled, so you could get the pressure changes needed for sound. I wonder why no one has thought to try this method before.

Subject: Re: Graphene Speakers
Posted by Wayne Parham on Tue, 09 Oct 2012 18:36:00 GMT
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This is completely unrelated, but is another interesting alternate technology. Two ultrasonic carriers signals are used, with one shifted so the beat frequency of the interference is modulated to form an audio signal in the 20-20kHz range.
Hypersonic Sound Beaming

Subject: Re: Graphene Speakers
Posted by audioaudio90 on Fri, 12 Oct 2012 15:52:38 GMT
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Wayne, I understand how the beat frequency is created, but I'm not sure what beam steering is. Does it mean they change one or both of the ultrasonic frequencies to vary the beat frequency?