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## 'Anti-laser' traps all incoming light

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Call it the anti-laser. Instead of amplifying light, it would soak it up completely, leaving utter darkness.

A laser shines by producing a cascade of photons that bounce around inside a light-amplifying material before exiting from one end. A team at Yale University wondered what would happen if they could reverse the process, making the material absorb rather than emit a laser beam.

Most lasers emit from one end, but it's also possible to make lasers emit two identical beams in opposite directions. This requires having identical, partly transparent layers at both ends of a slab of a light-emitting material such as gallium arsenide.

The researchers calculated that if a light-absorbing material like silicon were used instead, then at certain wavelengths, two identical laser beams shone directly at each other would completely cancel themselves out inside the material.

A paper-thin slice of silicon would normally absorb about 20 per cent ...

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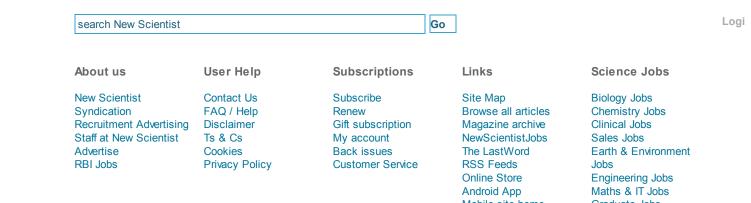
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