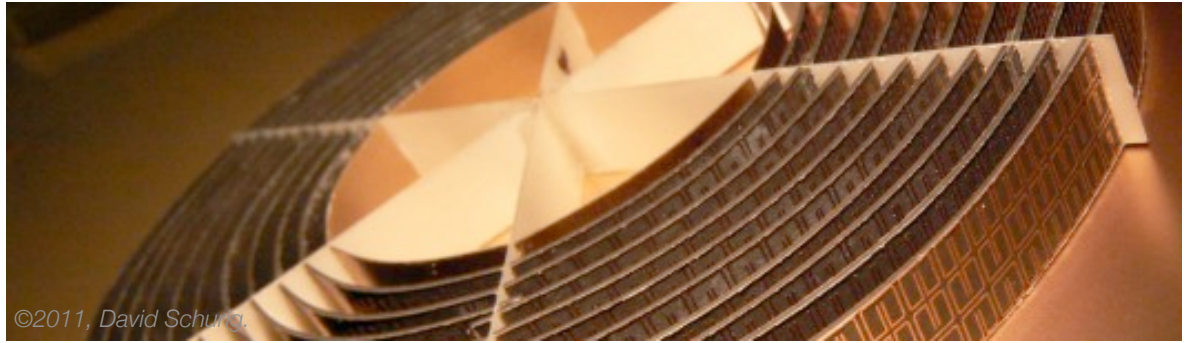


Name

Date

Physics



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The Invisibility Cloak

Multiple Choice

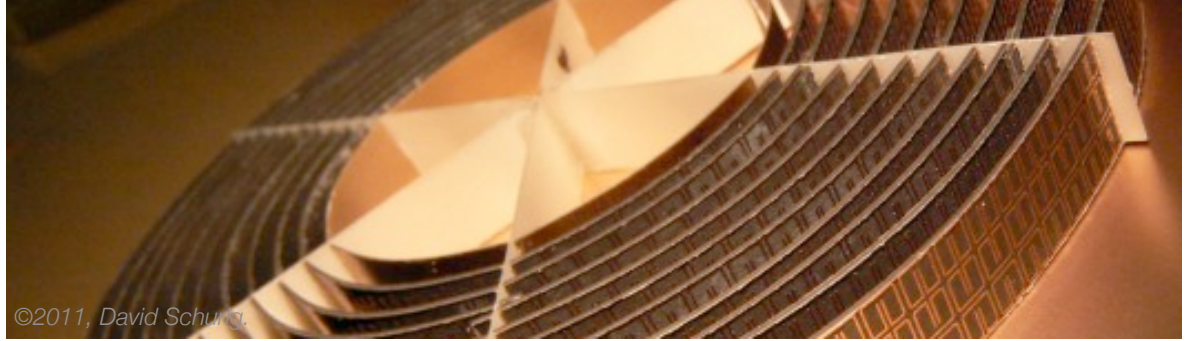
For each question, select the best answer from the four alternatives.

1. Which property would be most important in developing an invisibility device?
 - a) refractive index
 - b) melting point
 - c) metallic lustre
 - d) density
2. In a metamaterial, light is
 - a) completely unrefracted.
 - b) totally reflected.
 - c) refracted on the opposite side of the normal.
 - d) refracted on the same side of the normal.
3. The first sentence of paragraph 3 means that scientists hope to
 - a) repeat the invisibility experiment with copper rings and microwaves.
 - b) use metamaterials and microwaves to produce invisibility.
 - c) use metamaterials and visible light to produce invisibility.
 - d) make copper rings seem to disappear in visible light.
4. According to the article,
 - a) invisibility cloaks for people are expected very soon.
 - b) invisibility has only been produced to date for microwaves.
 - c) metamaterials are easily constructed.
 - d) invisibility devices remain strictly science fiction.

Short Answer

Why would invisibility experiments using microwaves have anything to do with invisibility experiments involving visible light?

5. _____
- _____
- _____
- _____



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5. Microwaves and visible light are both forms of electromagnetic waves and,

therefore, share a number of properties in the way they interact with

materials. If microwaves can be bent around objects, perhaps visible light

waves will also display this property under the right conditions.

Short Answer

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