

Article: Deformation of the materials with spherical auxetic inclusions

Supplementary 3: Analogy to other metamaterials

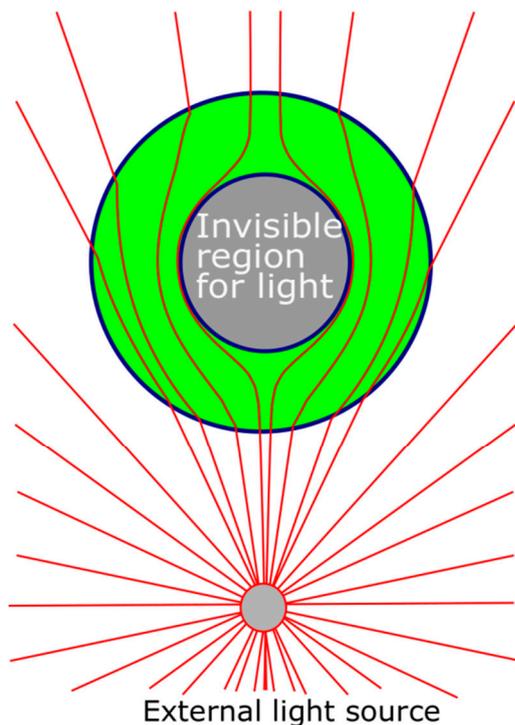
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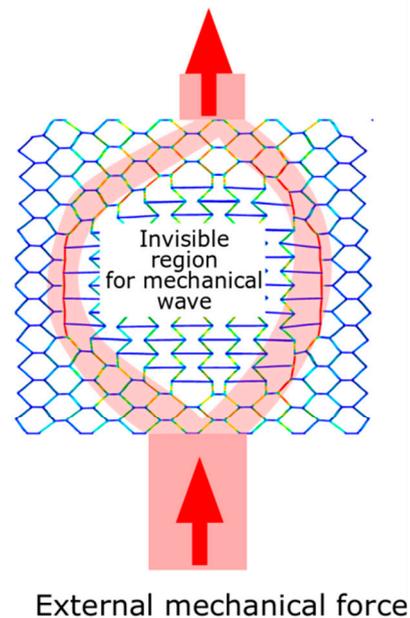
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The space inside particle can be “invisible” for mechanical wave. The analogy of auxetic materials is an invisible cloak from metamaterials. It was theoretically described by Pendry [1]. Real invisibility cloak was proposed by Ni, Zhang et al [2].

invisibility cloak for light
by John Pendry



Invisibility for mechanical wave
by auxetic materials



References

[1] Pendry, J. B., Schurig, D., Smith, D. R. (2006). Controlling Electromagnetic Fields. *Science*, 312(5781), 1780-1782. <https://doi.org/10.1126/science.1125907>.

[2] Ni, X., Wong, Z. J., Mrejen, M., Wang, Y., Zhang, X. (2015). An ultrathin invisibility skin cloak for visible light. *Science*, 349(6254), 1310-1314. <https://doi.org/10.1126/science.aac9411>.