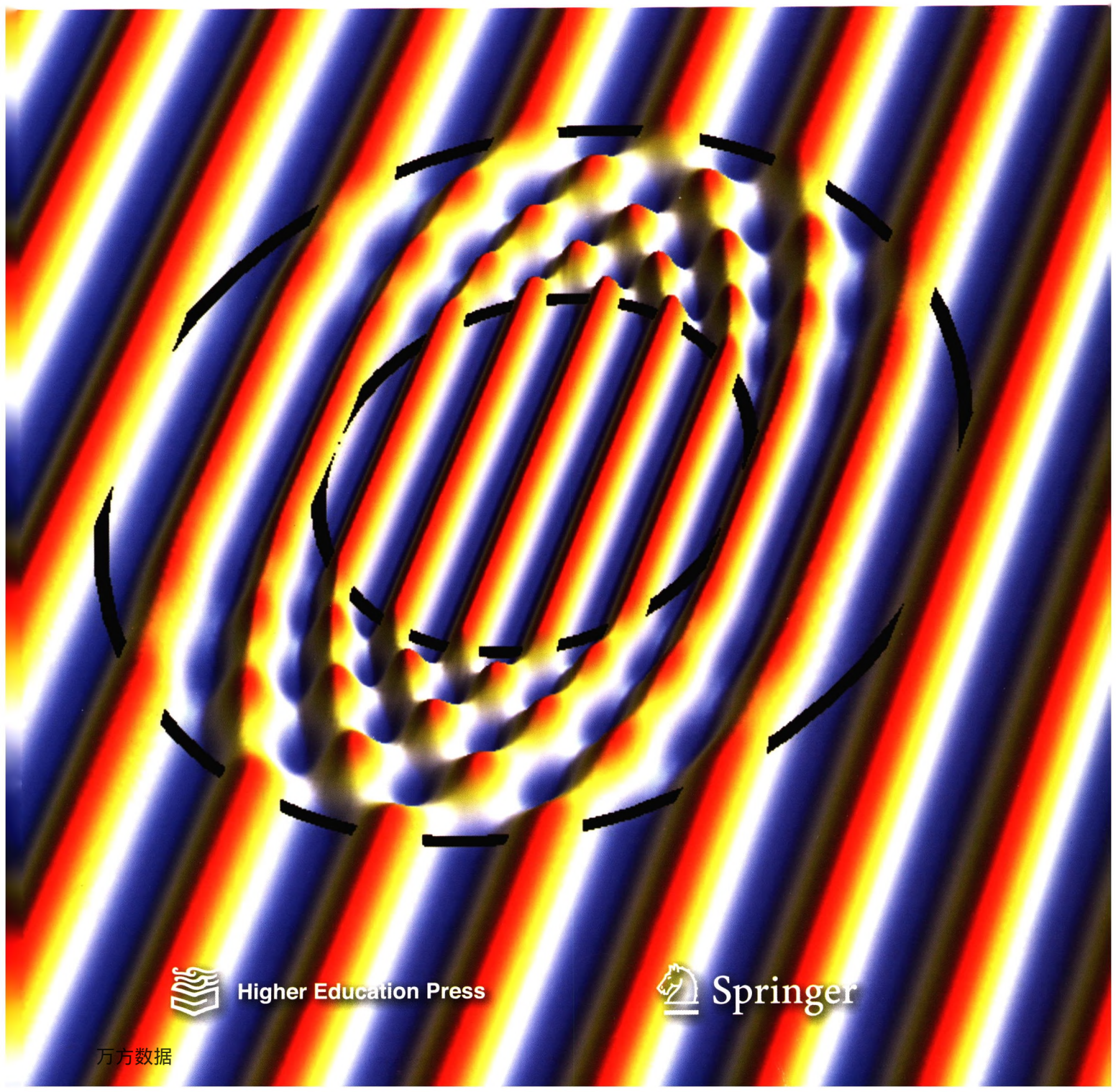


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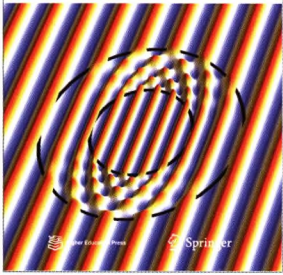


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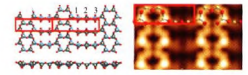


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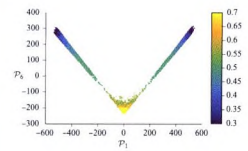
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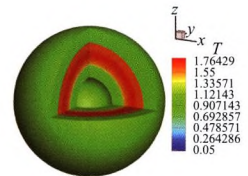
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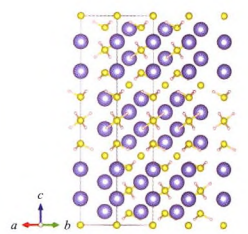
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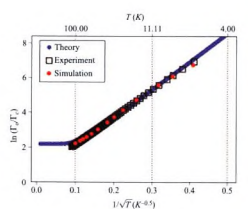
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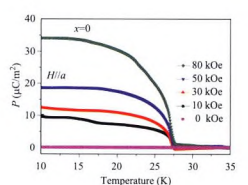
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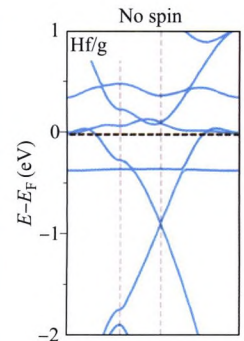


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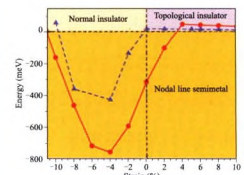
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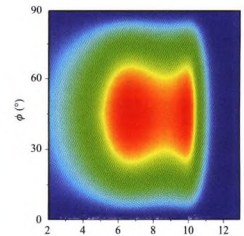
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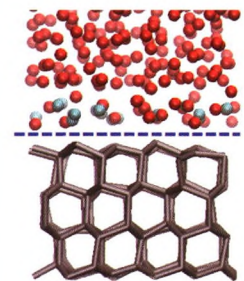
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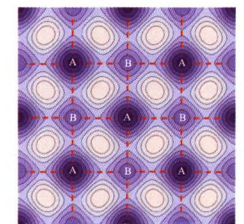
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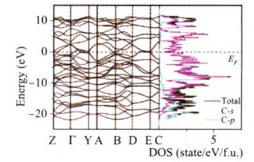
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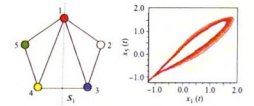


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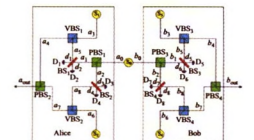
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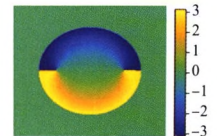
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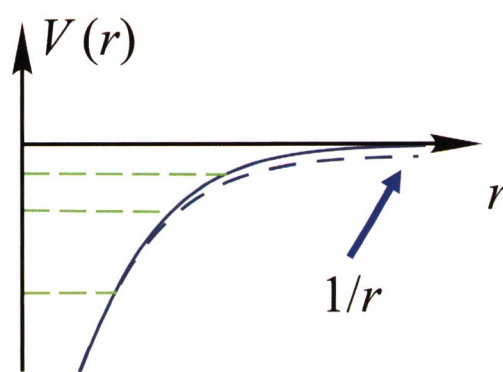
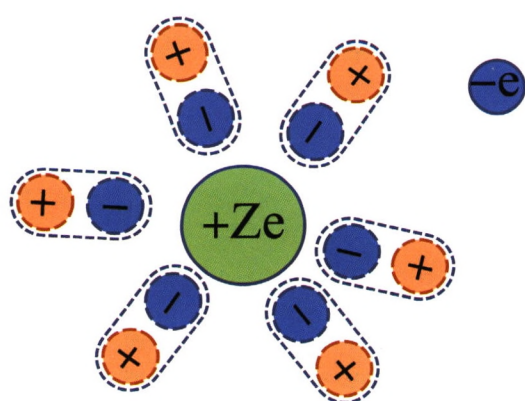


## Cover

The authors present a series of invisibility concentrators with simplified material parameters beyond transformation optics. One of them can achieve the perfect invisible effect at frequencies of Fabry–Pérot resonances, while others have very small scattering. The required materials are feasible in practice. Analytical calculations and numerical simulations confirm the functionalities of these devices. For more details, please refer to the article “Perfect invisibility concentrator with simplified material parameters” by Meng-Yin Zhou, *et al.*, *Front. Phys.* 13(5), 134101 (2018), and “Blueprints for real-world invisibility” by Philip Ball, *Front. Phys.* 13(5), 134102 (2018). [Photo Credits: Lin Xu & Huanyang Chen, Xiamen University]

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Motivated by the recent experimental observations in two- and three-dimensional Dirac semi-metals, the authors investigated the many-body correction to the Efimov effect and the conditions that allow some of the Efimov-like quasi-bound states to be observed in these condensed matter experiments. See: Pengfei Zhang and Hui Zhai, Efimov effect in Dirac semi-metals, *Front. Phys.* 13(5), 137204 (2018).

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