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Title:Reversibly stretchable and tunable terahertz metamaterials with wrinkled layouts

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Abstract:The use of wrinkling provides a generic route to stretchable metamaterials, with unprecedented terahertz tunability. The wrinkled metamaterial can be stretched reversibly up to 52.5%; the structural integrity can be maintained during at least 100 stretching/relaxing cycles. Importantly, the wrinkling of meta-atoms offers a deterministic way to achieve controlled broadening of electrical resonance. © 2012 WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim.

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