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Title:	Spectral shifts in the properties of a periodic multilayered stack due to isotropic chira layers
Authors:	Ramakrishna, S. Anantha (/jspui/browse?type=author&value=Ramakrishna%2C+S.+Anantha)
Keywords:	Homogenization Isotropic chirality Negative permittivity Periodic multilayered metamaterial
Issue Date:	2009
Publisher:	IOP
Citation:	J.Opt. A : Pure Appl.Opt. Vol.11,074001.
Abstract:	Investigating the canonical problem of a periodic multilayered stack containing isotropic chiral layers, we homogenized it as a uniaxial bianisotropic medium and derived its effective constitutive parameters. The stack shows a resonant behavior, when its unit cell consists of a metallic layer and an isotropic chiral layer. The presence of isotropic chirality can result in small shifts of the resonance frequency for reasonably large values of the chirality parameter, implying that the sign of an effective permittivity can be switched. Such spectral shifts in the dielectric properties can be potentially useful for spectroscopic purposes.
Description:	Only IISERM authors are available in the record.
URI:	http://arxiv.org/abs/0902.2094 (http://arxiv.org/abs/0902.2094) http://iopscience.iop.org/1464-4258/11/7/074001/ (http://iopscience.iop.org/1464-4258/11/7/074001/)
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