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Extraordinary transverse magneto-optical Kerr effect in a superlens EDWIN MONCADA, Universidad del Valle, ANTONIO GARCIA, Instituto de Microelectronica de Madrid, JUAN CARLOS CUEVAS, Universidad Autonoma de Madrid — It has been shown that a slab of a negative index material can behave as a superlens enhancing the imaging resolution beyond the wavelength limit. We show here that if such a slab possesses in addition some magneto-optical activity, it could act as an ideal optical filter and exhibit an extraordinary transverse magneto-optical Kerr effect. Moreover, we show that losses, which spoil the imaging resolution of these lenses, are a necessary ingredient to observe this effect.

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