



Reflection from a Flat Dielectric Film with Negative Refractive Index

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We analyse the reflection of a TM electromagnetic field first on a flat dielectric film and second on a Veselago film with negative refractive index, both films being deposited on a metallic substrate acting as a mirror. An incident harmonic plane wave generates inside a conventional dielectric film a refracted propagating wave and an evanescent wave that does not contribute to reflection on the metallic substrate so that part of the information

conveyed by the incident field is lost. At the opposite, inside a Veselago film, evanescent waves are changed into outbursting waves reflecting on the metallic substrate and participating to the total reflected field from the metallic film without loss of information.

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