

Title (en)
PLASMON RESONANT BASED EYE PROTECTION

Title (de)
AUGENSCHUTZ AUF PLASMONRESONANZBASIS

Title (fr)
PROTECTION DES YEUX PAR RÉSONANCE PLASMON

Publication
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Application
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Abstract (en)
[origin: WO2007133197A1] A contact lens is provided in which tunable nanoparticles are embedded or otherwise coated on the lens to extinguish near-infrared energy. In one preferred embodiment, the tunable nanoparticles are nanoshells consisting of a dielectric core and a metal shell, wherein the plasmon resonance frequency is determined by the relative size of the core and the metal shell. With the capability to alter the relative size of the core and the metal shell, nanoshells are uniquely tunable nanoparticles, allowing a range of optical extinctions. In another embodiment, the nanoshells are tuned to extinguish energy from other parts of the energy spectrum. In one desired embodiment of the invention, these plasmon resonant structures are introduced into the lens polymer prior to formation or manufacturing of a lens. In another embodiment of the invention, these nanoshells are coated on a contact lens after formation of the lens.

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- No further relevant documents disclosed
- See references of WO 2007133197A1

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