

Photosensitive dyes, catalysts and release vehicles are immensely attractive for fashion and design, but also biomedical applications. Unfortunately, a high price and low stability during processing in air and solvents currently prevent their wide-spread application.

Photo-responsive Electrospun Membranes



Concept: Hue-changing curtain for anti-glare application.

Photo-responsive Electrospun Membranes

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- Encapsulation of photochromic dye (sun block/anti-glare)
 - > Temporary color change: reversal in a few minutes @ r.t. without uv
 - > Minimum amount of material / additive for maximum effect
- Encapsulation as core-shell, blend or on surface
- Choice of materials and other functionalities tailored to application
 - Antibiotic: Metal oxides for in-situ formation of reactive oxygen species
 - Release of enzymes/drugs: Nanoreactors (doi:10.1021/jacs.8b04511)
- Use in textile finishing, interior design, medicine, catalysis

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