

Title (en)  
METHODS, SYSTEMS, AND APPARATUS FOR REDUCING THE FREQUENCY AND/OR SEVERITY OF PHOTOPHOBIC RESPONSES OR FOR MODULATING CIRCADIAN CYCLES

Title (de)  
VERFAHREN, SYSTEME UND VORRICHTUNGEN ZUR VERRINGERUNG DER FREQUENZ UND/ODER DES SCHWEREGRADES PHOTOPHOBER REAKTIONEN ODER ZUR MODULATION ZIRKADIANER ZYKLEN

Title (fr)  
PROCÉDÉS, SYSTÈMES ET APPAREIL POUR RÉDUIRE LA FRÉQUENCE ET/OU LA GRAVITÉ DE RÉPONSES PHOTOPHOBES OU POUR MODULER LES CYCLES CIRCAIDIENS

Publication  
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Application  
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Abstract (en)  
[origin: WO2019032348A1] An optical filter may reduce the frequency and/or severity of photophobic responses or for modulating circadian cycles by controlling light exposure to cells in the human eye in certain wavelengths, such as 480nm and 590nm, and a visual spectral response of the human eye. The optical filter may disrupt the isomerization of melanopsin in the human eye reducing the availability of the active isoform, whereas the attenuation of light weighted across the action potential spectrum of the active isoform attenuates the phototransduction cascade leading to photophobic responses. Embodiments of an optical filter are described. In one embodiment an optical filter may be configured to transmit less than a first amount of light in certain wavelengths, and to transmit more than a second amount of light weighted across the visual spectral response. Methods of use and methods of manufacturing optical filters are also described.

IPC 8 full level  
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Citation (search report)  
• [XY] US 9606277 B2 20170328 - BLAIR STEVEN M [US], et al  
• [Y] WO 2010111499 A1 20100930 - HIGH PERFORMANCE OPTICS INC [US], et al  
• [A] WO 2014011581 A2 20140116 - PHOTOKINETICS INC [US], et al  
• See also references of WO 2019032348A1

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**WO 2019032348 A1 20190214**; AU 2018314216 A1 20200227; AU 2018314216 B2 20231221; CA 3072541 A1 20190214; CN 111148482 A 20200512; EP 3664745 A1 20200617; EP 3664745 A4 20210414; IL 272453 A 20200331; JP 2020530587 A 20201022; JP 2023082005 A 20230613; KR 102674937 B1 20240612; KR 20200053471 A 20200518; SG 11202000912S A 20200227; ZA 202000810 B 20210428

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