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(54) Title (EN): POLYMER 4,4#-BIPYRIDINIUM STRUCTURES, FORMULATIONS FOR AN ELECTROCHROMIC ACTIVE LAYER, AND APPLICATION THEREFOR

(54) Title (FR): STRUCTURES DE 4,4#-BIPYRIDINIUM POLYMERES, FORMULATIONS DESTINEES A UNE COUCHE ELECTROCHROME ACTIVE ET UTILISATION

(54) Title (DE): POLYMERE 4,4'-BIPYRIDINIUM-STRUKTUREN, FORMULIERUNG FÜR EINE ELEKTROCHROM AKTIVE SCHICHT UND ANWENDUNG DAZU

(57) Abstract:

(EN): The invention relates to material systems wherein electrochemical and/or photochemical parallel reactions are completely avoided by stabilising structural modifications, or repressed by orders of magnitude as a result of the structural modifications. The invention also relates to polymer 4,4'-bipyridinium structures, to formulations based on said structures and used for electrochromic active layers, and to the use of 4,4'-bipyridinium structures for producing organic electrochromic displays.

(FR): L'invention concerne des systèmes de matériaux permettant, de façon entièrement nouvelle, d'éviter complètement des réactions parallèles électrochimiques et/ou photochimiques à l'aide de modifications structurelles, ou de réduire celles-ci de plusieurs ordres de grandeur sous l'effet des modifications structurelles. L'invention concerne plus précisément des structures de 4,4'-bipyridinium polymères, des formulations à base de ces structures, destinées à des couches électrochromes actives, et l'utilisation des structures de 4,4'-bipyridinium dans la fabrication d'écrans électrochromes organiques.

(DE): Durch die Erfindung werden erstmals Materialsysteme vorgeschlagen, in denen elektro- und/oder photochemische Parallelreaktionen durch stabilisierende strukturelle Veränderungen ganz vermieden werden oder deren Zurückdrängung wegen der strukturellen Veränderungen um Größenordnungen erfolgt. Die Erfindung betrifft neuartige polymere 4,4'-Bipyridinium-Strukturen, auf dieser Basis geschaffene Formulierungen für elektrochrom aktive Schichten und die Anwendung der 4,4'-Bipyridinium-Strukturen zur Herstellung organischer elektrochromer Displays.

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