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**(54) Title (EN):** GRAPHENE-OXIDE GRAFTED PBO (ZYLON®) FIBERS; METHOD FOR PRODUCTION AND APPLICATIONS TO AIRSHIP HULLS AND LIGHTER THAN AIR VEHICLES

**(54) Title (FR):** FIBRES DE PBO GREFFÉES À BASE D'OXYDE DE GRAPHÈNE (ZYLON®) ; PROCÉDÉ DE PRODUCTION ET APPLICATIONS À DES COQUES DE DIRIGEABLE ET À DES VÉHICULES PLUS LÉGERS QUE L'AIR

**(57) Abstract:**

**(EN):** In a method for producing a PBO fiber with increased resistance against UV-caused degradation, a coating is provided on the PBO fibers, wherein the coating comprises graphene oxide cross-linked by polymerization with glutaraldehyde and resorcinol. The fibers are useful for lighter than air vehicles.

**(FR):** Dans un procédé de production d'une fibre PBO présentant une résistance accrue contre la dégradation provoquée par les UV, un revêtement est disposé sur les fibres PBO, le revêtement comprenant de l'oxyde de graphène réticulé par polymérisation avec du glutaraldéhyde et du résorcinol. Les fibres sont utiles pour des véhicules plus légers que l'air.

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