

Title (en)

POLYMERS HAVING BACKBONES WITH REACTIVE GROUPS EMPLOYED IN CROSSLINKING AS PRECURSORS TO NANOPOROUS THIN FILM STRUCTURES

Title (de)

POLYMERE MIT RÜCKGRAT MIT REAKTIVEN GRUPPEN DIE IN DER VERNETZUNG ALS VORLÄUFER FÜR NANOPORÖSE DÜNNSCHICHTSTRUKTUREN BENUTZT WERDEN

Title (fr)

POLYMERES A SQUELETTES DOTES DE GROUPES REACTIFS UTILISES DANS LA RETICULATION COMME PRECURSEURS DE STRUCTURES A FILMS FINS NANOPOREUX

Publication

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Application

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Abstract (en)

[origin: WO0061667A1] Nanoporous materials are fabricated from polymers having backbones with reactive groups used in crosslinking. In one aspect of preferred methods and compositions, the reactive groups in the backbone comprise a diene and a dienophile. The diene may advantageously comprise a tetracyclone, and the dienophile may advantageously comprise an ethynyl. In another aspect of preferred methods and compositions, the reactive groups in the backbone are included in a conjugated system. Especially preferred polymeric strands comprise a poly(arylene ether) synthesized from a difluoroaromatic portion and an aromatic bisphenolic portion. It is still more preferred that the difluoroaromatic portions of the poly(arylene ether) are modified in such a way that some difluoroaromatic portions carry a thermolabile portion. In still other aspects crosslinking may advantageously occur without reliance on an exogenous crosslinker.

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CPC (source: EP)

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