

Title (en)
METHOD FOR PRODUCING TERRYLEN-3,4:11,12-TETRACARBON ACID DI-IMIDS

Title (de)
VERFAHREN ZUR HERSTELLUNG VON TERRYLEN-3,4:11,12-TETRACARBONSÄUREDIIIMIDEN

Title (fr)
PROCEDE DE FABRICATION DE DI-IMIDES DE L'ACIDE TERRYLENE-3,4:11,12-TETRACARBOXYLIQUE

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Application
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Abstract (en)
[origin: WO2005070894A1] The invention relates to a method for producing terrylen-3,4:11,12-tetracarboxylic acid diimids of general formula (I), wherein R and R' are independently hydrogen, possibly substituted C1-C30-alkyl, C5-C8-cycloalkyl, aryl or hetaryl consisting in a) reacting a diboran (II) in the presence an aprotic organic solvent, a transition metal-based catalyst and a base with a1) a 9-brom-perylen-3,4-dicarboxyl acid imid (IIIa) or a2) a naphthalene-1,8-dicarboxylic-acid imid (IIIb), b1) in submitting a formed 9-(dioxaborolan-2-yl)perylene-3,4-dicarboxylic acid imid (IVa) in the presence of an organic solvent preferably mixed with water, a transition metal-based catalyst and a base to a Suzuki-coupling reaction with a naphthalene-1,8-dicarboxylic carbon imid (IIIb) or b2) a submitting a formed 4-(dioxaborolan-2-yl)naphthalene-1,8-dicarboxylic acid imid (IVb) in the presence of an organic solvent preferably mixed with water, a transition metal-based catalyst and a base to a Suzuki-coupling reaction with a 9-brom-perylen-3,4-dicarbon acid imid (IIIa) and c)in transforming a formed 9-(4-naphthalene-1,8-dicarboxylic acid imid) perylene-3,4-dicarboxylic acid imid (V) into the terrylen-3,4:11,12-tetracarbon acid di-imid base (I) by cyclodehydration in an organic reaction medium exhibiting hydroxy and amino functions and containing a substantially insoluble base.

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