

Title (en)

METHOD FOR FORMING A CHEMICAL GUIDANCE STRUCTURE ON A SUBSTRATE AND CHEMO-EPITAXY METHOD

Title (de)

VERFAHREN ZUR HERSTELLUNG EINER CHEMISCHEN FÜHRUNGSSTRUKTUR AUF EINEM SUBSTRAT UND CHEMOEPITAXIEVERFAHREN

Title (fr)

PROCÉDÉ DE FORMATION D'UNE STRUCTURE DE GUIDAGE CHIMIQUE SUR UN SUBSTRAT ET PROCÉDÉ DE CHÉMO-ÉPITAXIE

Publication

EP 3729491 A1 20201028 (FR)

Application

EP 18827109 A 20181221

Priority

- FR 1762874 A 20171221
- EP 2018086594 W 20181221

Abstract (en)

[origin: WO2019122334A1] The invention relates to a method for forming a chemical guidance structure for the self-assembly of a block copolymer by chemo-epitaxy, said method comprising the following steps: forming, on a substrate (100), at least one initial pattern (210) in a first grafted polymer material having a first molar mass and a first chemical affinity in relation to the block copolymer; covering the initial pattern (210) and a region of the substrate adjacent to the initial pattern with a layer (150) comprising a second graftable polymer material (160), the second polymer material having a second molar mass which is higher than the first molar mass, and a second chemical affinity in relation to the block copolymer, which is different from the first chemical affinity; and grafting the second polymer material (160) in the region adjacent to the initial pattern (210).

IPC 8 full level

H01L 21/027 (2006.01); **B81C 1/00** (2006.01)

CPC (source: EP KR US)

B81C 1/00031 (2013.01 - EP KR US); **C08F 212/08** (2013.01 - US); **C08F 299/024** (2013.01 - US); **C08L 53/00** (2013.01 - US);
G03F 7/002 (2013.01 - EP KR US); **G03F 7/0035** (2013.01 - US); **H01L 21/02118** (2013.01 - US); **H01L 21/02293** (2013.01 - US);
H01L 21/0271 (2013.01 - EP KR); **H01L 21/0273** (2013.01 - US); **H01L 21/0338** (2013.01 - US); **H01L 21/3086** (2013.01 - US);
B81C 2201/0149 (2013.01 - EP KR); **B81C 2201/0198** (2013.01 - EP KR); **C08L 25/06** (2013.01 - US); **C08L 33/12** (2013.01 - US)

Citation (search report)

See references of WO 2019122334A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2019122334 A1 20190627; EP 3729491 A1 20201028; FR 3075775 A1 20190628; FR 3075775 B1 20200117; JP 2021507297 A 20210222;
KR 20200096981 A 20200814; TW 201936482 A 20190916; US 2021088897 A1 20210325

DOCDB simple family (application)

EP 2018086594 W 20181221; EP 18827109 A 20181221; FR 1762874 A 20171221; JP 2020534334 A 20181221; KR 20207020612 A 20181221;
TW 107146480 A 20181221; US 201816954875 A 20181221