

(19)



(11)

EP 2 820 311 B1

(12)

EUROPEAN PATENT SPECIFICATION

(45) Date of publication and mention of the grant of the patent:
07.12.2016 Bulletin 2016/49

(51) Int Cl.:
F15B 15/10 (2006.01)

(21) Application number: **13711184.5**

(86) International application number:
PCT/US2013/028250

(22) Date of filing: **28.02.2013**

(87) International publication number:
WO 2013/130760 (06.09.2013 Gazette 2013/36)

(54) **APPARATUS, SYSTEM, AND METHOD FOR PROVIDING FABRIC-ELASTOMER COMPOSITES AS PNEUMATIC ACTUATORS**

APPARAT, SYSTEM UND METHODE ZUR BEREITSTELLUNG EINES GEWEBE-ELASTOMER ALS PNEUMATISCHEN AKTOR

APPAREIL, SYSTÈME ET MÉTHODE POUR POURVOIR UN TISSUE-ÉLASTOMÈRE COMME VÉRIN PNEUMATIQUE

(84) Designated Contracting States:
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

(72) Inventors:
• **MARTINEZ, Ramses, V**
 Madrid, 28607 (ES)
• **WHITESIDES, George, M.**
 Newton, MA 02458 (US)

(30) Priority: **28.02.2012 US 201261604272 P**

(74) Representative: **HGF Limited**
1 City Walk
Leeds LS11 9DX (GB)

(43) Date of publication of application:
07.01.2015 Bulletin 2015/02

(73) Proprietor: **President and Fellows of Harvard College**
Cambridge, MA 02138 (US)

(56) References cited:
EP-A1- 0 146 261 DE-A1-102009 029 972
GB-A- 2 296 941 JP-A- H02 134 465
US-A- 2 891 139 US-A- 4 337 921

EP 2 820 311 B1

Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).