

Title (en)  
CELLULOSE CONTAINING HYBRID AEROGELS AND HYBRID XEROGELS, AND PROCESS FOR THEIR PRODUCTION

Title (de)  
CELLULOSE ENTHALTENDE HYBRIDE AEROGELE UND HYBRIDE XEROGELE UND VERFAHREN ZU IHRER HERSTELLUNG

Title (fr)  
AÉROGELS HYBRIDES CONTENANT DE LA CELLULOSE, XÉROGELS HYBRIDES, ET PROCÉDÉ DE PRODUCTION ASSOCIÉ

Publication  
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Application  
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Abstract (en)  
[origin: WO2019190379A1] Cellulose containing hybrid aerogels and hybrid xerogels, having excellent adsorption properties and sufficient mechanical stability for carrying the adsorbed matter, are provided. These hybrid aerogels and xerogels are prepared by a process comprising dissolving cellulose pulp in an aqueous sodium hydroxide solution and adding a chargeable carbohydrate, gelation of the solution comprising the dissolved matter, regeneration and drying.

IPC 8 full level  
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CPC (source: EP SE)  
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Citation (search report)  
• [Y] WO 2017155456 A1 20170914 - INNVENTIA AB [SE]  
• [XYI] DATABASE WPI Week 201678, Derwent World Patents Index; AN 2016-44399U, XP002804761  
• [X] MENG GUIHUA ET AL: "Fabrication of superhydrophobic cellulose/chitosan composite aerogel for oil/water separation", FIBERS AND POLYMERS, THE KOREAN FIBER SOCIETY, SEOUL, vol. 18, no. 4, 4 May 2017 (2017-05-04), pages 706 - 712, XP036226988, ISSN: 1229-9197, [retrieved on 20170504], DOI: 10.1007/S12221-017-1099-4  
• [A] RAMAN S P ET AL: "Hybrid alginate based aerogels by carbon dioxide induced gelation: Novel technique for multiple applications", THE JOURNAL OF SUPERCRITICAL FLUIDS, vol. 106, 15 May 2015 (2015-05-15), pages 23 - 33, XP029289287, ISSN: 0896-8446, DOI: 10.1016/J.SUPFLU.2015.05.003  
• [A] PENG HUILI ET AL: "A facile approach for preparation of underwater superoleophobicity cellulose/chitosan composite aerogel for oil/water separation", APPLIED PHYSICS A, SPRINGER BERLIN HEIDELBERG, BERLIN/HEIDELBERG, vol. 122, no. 5, 13 April 2016 (2016-04-13), pages 1 - 7, XP035875515, ISSN: 0947-8396, [retrieved on 20160413], DOI: 10.1007/S00339-016-0049-0  
• [A] DATABASE WPI Week 201809, Derwent World Patents Index; AN 2018-04801M, XP002804762  
• See references of WO 2019190379A1

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