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[1] J. Cai, L. Li, X. Lv, C. Yang, X. Zhao, Large surface area ordered porous carbons via nanocasting zeolite 10X and high performance for hydrogen storage application, ACS Appl Mater Interfaces, 6 (2014) 167-175.

[2] C.I. Contescu, K. van Benthem, S. Li, C.S. Bonifacio, S.J. Pennycook, P. Jena, N.C. Gallego, Single Pd atoms in activated carbon fibers and their contribution to hydrogen storage, Carbon, 49 (2011) 4050-4058.

[3] L. Wang, F.H. Yang, R.T. Yang, Hydrogen storage properties of B- and N-doped microporous carbon, AlChE J., 55 (2009) 1823-1833.

[4] V. Fierro, A. Szczurek, C. Zlotea, J.F. Marêché, M.T. Izquierdo, A. Albiniak, M. Latroche, G. Furdin, A. Celzard, Experimental evidence of an upper limit for hydrogen storage at 77K on activated carbons, Carbon, 48 (2010) 1902-1911.

[5] M. Jordá-Beneyto, F. Suárez-García, D. Lozano-Castelló, D. Cazorla-Amorós, A. Linares-Solano, Hydrogen storage on chemically activated carbons and carbon nanomaterials at high pressures, Carbon, 45 (2007) 293-303.

[6] K.Y. Kang, B.I. Lee, J.S. Lee, Hydrogen adsorption on nitrogen-doped carbon xerogels, Carbon, 47 (2009) 1171-1180.

[7] G. Sethia, A. Sayari, Activated carbon with optimum pore size distribution for hydrogen storage, Carbon, 99 (2016) 289-294.

[8] H. Wang, Q. Gao, J. Hu, Z. Chen, High performance of nanoporous carbon in cryogenic hydrogen storage and electrochemical capacitance, Carbon, 47 (2009) 2259-2268.

[9] J. Wang, I. Senkovska, S. Kaskel, Q. Liu, Chemically activated fungi-based porous carbons for hydrogen storage, Carbon, 75 (2014) 372-380.

[10] K. Xia, Q. Gao, C. Wu, S. Song, M. Ruan, Activation, characterization and hydrogen storage properties of the mesoporous carbon CMK-3, Carbon, 45 (2007) 1989-1996.

[11] Y. Xia, R. Mokaya, D.M. Grant, G.S. Walker, A simplified synthesis of N-doped zeolite-templated carbons, the control of the level of zeolite-like ordering and its effect on hydrogen storage properties, Carbon, 49 (2011) 844-853.

[12] Y. Xia, Y. Zhu, Y. Tang, Preparation of sulfur-doped microporous carbons for the storage of hydrogen and carbon dioxide, Carbon, 50 (2012) 5543-5553.

[13] Y.S. Lee, Y.H. Kim, J.S. Hong, J.K. Suh, G.J. Cho, The adsorption properties of surface modified activated carbon fibers for hydrogen storages, Catalysis Today, 120 (2007) 420-425.

[14] L.S. Blankenship, R. Mokaya, Cigarette butt-derived carbons have ultra-high surface area and unprecedented hydrogen storage capacity, Energy & Environmental Science, 10 (2017) 2552-2562.

[15] M. Sevilla, A.B. Fuertes, R. Mokaya, High density hydrogen storage in superactivated carbons from hydrothermally carbonized renewable organic materials, Energy & Environmental Science, 4 (2011).

[16] M. Sevilla, R. Foulston, R. Mokaya, Superactivated carbide-derived carbons with high hydrogenstorage capacity, Energy Environ. Sci., 3 (2010) 223-227.

[17] H. Chen, H. Wang, Z. Xue, L. Yang, Y. Xiao, M. Zheng, B. Lei, Y. Liu, L. Sun, High hydrogen storage capacity of rice hull based porous carbon, Int. J. Hydrogen Energy, 37 (2012) 18888-18894.

[18] P. Dibandjo, C. Zlotea, R. Gadiou, C. Matei Ghimbeu, F. Cuevas, M. Latroche, E. Leroy, C. Vix-Guterl, Hydrogen storage in hybrid nanostructured carbon/palladium materials: Influence of particle size and surface chemistry, Int. J. Hydrogen Energy, 38 (2013) 952-965.

[19] C.-C. Huang, Y.-H. Li, Y.-W. Wang, C.-H. Chen, Hydrogen storage in cobalt-embedded ordered mesoporous carbon, Int. J. Hydrogen Energy, 38 (2013) 3994-4002.

[20] J. Huang, Y. Liang, H. Dong, H. Hu, P. Yu, L. Peng, M. Zheng, Y. Xiao, Y. Liu, Revealing contribution of pore size to high hydrogen storage capacity, Int. J. Hydrogen Energy, 43 (2018) 18077-18082.

[21] J. Jiang, Q. Gao, Z. Zheng, K. Xia, J. Hu, Enhanced room temperature hydrogen storage capacity of hollow nitrogen-containing carbon spheres, Int. J. Hydrogen Energy, 35 (2010) 210-216.

[22] M. Kunowsky, J.P. Marco-Lozar, D. Cazorla-Amorós, A. Linares-Solano, Scale-up activation of carbon fibres for hydrogen storage, Int. J. Hydrogen Energy, 35 (2010) 2393-2402.

[23] N.M. Musyoka, J. Ren, H.W. Langmi, B.C. North, M. Mathe, A comparison of hydrogen storage capacity of commercial and fly ash-derived zeolite X together with their respective templated carbon derivatives, Int. J. Hydrogen Energy, 40 (2015) 12705-12712.

[24] M. Sevilla, A.B. Fuertes, R. Mokaya, Preparation and hydrogen storage capacity of highly porous activated carbon materials derived from polythiophene, Int. J. Hydrogen Energy, 36 (2011) 15658-15663.

[25] H.Y. Tian, C.E. Buckley, D.A. Sheppard, M. Paskevicius, N. Hanna, A synthesis method for cobalt doped carbon aerogels with high surface area and their hydrogen storage properties, Int. J. Hydrogen Energy, 35 (2010) 13242-13246.

[26] K. Xia, Q. Gao, S. Song, C. Wu, J. Jiang, J. Hu, L. Gao, CO2 activation of ordered porous carbon CMK-1 for hydrogen storage, Int. J. Hydrogen Energy, 33 (2008) 116-123.

[27] W. Xu, K. Takahashi, Y. Matsuo, Y. Hattori, M. Kumagai, S. Ishiyama, K. Kaneko, S. Iijima, Investigation of hydrogen storage capacity of various carbon materials, Int. J. Hydrogen Energy, 32 (2007) 2504-2512.

[28] C. Zhang, Z. Geng, M. Cai, J. Zhang, X. Liu, H. Xin, J. Ma, Microstructure regulation of super activated carbon from biomass source corncob with enhanced hydrogen uptake, Int. J. Hydrogen Energy, 38 (2013) 9243-9250.

[29] W. Zhao, V. Fierro, C. Zlotea, E. Aylon, M.T. Izquierdo, M. Latroche, A. Celzard, Optimization of activated carbons for hydrogen storage, Int. J. Hydrogen Energy, 36 (2011) 11746-11751.

[30] Hydrogen Storage in Activated Carbons and Activated Carbon Fibers, J. Phys. Chem. B, (2002).

[31] Preparation of Nanoporous Carbon Particles and Their Cryogenic Hydrogen Storage Capacities, J. Phys. Chem. C, (2008).

[32] Enhancement of Hydrogen Storage Capacity of Zeolite-Templated Carbons by Chemical Activation, J. Phys. Chem. C, (2010).

[33] A. Minoda, S. Oshima, H. Iki, E. Akiba, Synthesis of KOH-activated porous carbon materials and study of hydrogen adsorption, J. Alloys Compd., 580 (2013) S301-S304.

[34] Z. Geng, C. Zhang, D. Wang, X. Zhou, M. Cai, Pore size effects of nanoporous carbons with ultra-high surface area on high-pressure hydrogen storage, Journal of Energy Chemistry, 24 (2015) 1-8.

[35] E. Masika, R. Mokaya, Hydrogen Storage in High Surface Area Carbons with Identical Surface Areas but Different Pore Sizes: Direct Demonstration of the Effects of Pore Size, The Journal of Physical Chemistry C, 116 (2012) 25734-25740.

[36] F. Gao, D.-L. Zhao, Y. Li, X.-G. Li, Preparation and hydrogen storage of activated rayon-based carbon fibers with high specific surface area, J. Phys. Chem. Solids, 71 (2010) 444-447.

[37] N. Bader, R. Zacharia, O. Abdelmottaleb, D. Cossement, How the activation process modifies the hydrogen storage behavior of biomass-derived activated carbons, J. Porous Mater., 25 (2017) 221-234.

[38] Enhanced Hydrogen Storage Capacity of High Surface Area Zeolite-like Carbon Materials, Journal of the American Chemical Society, (2007).

[39] High Hydrogen Storage Capacity of Porous Carbons Prepared by Using Activated Carbon, Journal of the American Chemical Society, (2009).

[40] O. Üner, Hydrogen storage capacity and methylene blue adsorption performance of activated carbon produced from Arundo donax, Mater. Chem. Phys., 237 (2019).

[41] M. Jordá-Beneyto, D. Lozano-Castelló, F. Suárez-García, D. Cazorla-Amorós, Á. Linares-Solano, Advanced activated carbon monoliths and activated carbons for hydrogen storage, Micropor. Mesopor. Mater., 112 (2008) 235-242.

[42] X. Liu, C. Zhang, Z. Geng, M. Cai, High-pressure hydrogen storage and optimizing fabrication of corncob-derived activated carbon, Micropor. Mesopor. Mater., 194 (2014) 60-65.

[43] C. Robertson, R. Mokaya, Microporous activated carbon aerogels via a simple subcritical drying route for CO2 capture and hydrogen storage, Micropor. Mesopor. Mater., 179 (2013) 151-156.

[44] Y.-X. Yang, L. Bourgeois, C. Zhao, D. Zhao, A. Chaffee, P.A. Webley, Ordered micro-porous carbon molecular sieves containing well-dispersed platinum nanoparticles for hydrogen storage, Micropor. Mesopor. Mater., 119 (2009) 39-46.

[45] G.P. Meisner, Q. Hu, High surface area microporous carbon materials for cryogenic hydrogen storage synthesized using new template-based and activation-based approaches, Nanotechnology, 20 (2009) 204023.

[46] J. Zhao, J. Wei, D. Cai, H. Cao, T. Tan, Polyaspartic Acid-Derived Micro-/Mesoporous Carbon for Ultrahigh H2 and CH4 Adsorption, ACS Omega, 5 (2020) 10687-10695.

[47] W. Sangchoom, R. Mokaya, Valorization of Lignin Waste: Carbons from Hydrothermal Carbonization of Renewable Lignin as Superior Sorbents for CO2 and Hydrogen Storage, ACS Sustainable Chemistry & Engineering, 3 (2015) 1658-1667.

[48] M. Sevilla, W. Sangchoom, N. Balahmar, A.B. Fuertes, R. Mokaya, Highly Porous Renewable Carbons for Enhanced Storage of Energy-Related Gases (H2 and CO2) at High Pressures, ACS Sustainable Chemistry & Engineering, 4 (2016) 4710-4716.

[49] D. Giasafaki, G. Charalambopoulou, A. Bourlinos, A. Stubos, D. Gournis, T. Steriotis, A hydrogen sorption study on a Pd-doped CMK-3 type ordered mesoporous carbon, Adsorption, 19 (2013) 803-811.

[50] W. Zhao, L. Luo, H. Wang, M. Fan, Synthesis of Bamboo-Based Activated Carbons with Super-High Specific Surface Area for Hydrogen Storage, Bioresources, (2017).

[51] M. Kunowsky, J.P. Marco-Lozar, A. Oya, A. Linares-Solano, Hydrogen storage in CO2-activated amorphous nanofibers and their monoliths, Carbon, 50 (2012) 1407-1416.

[52] Y. Yang, C.M. Brown, C. Zhao, A.L. Chaffee, B. Nick, D. Zhao, P.A. Webley, J. Schalch, J.M. Simmons, Y. Liu, J.-H. Her, C.E. Buckley, D.A. Sheppard, Micro-channel development and hydrogen adsorption properties in templated microporous carbons containing platinum nanoparticles, Carbon, 49 (2011) 1305-1317.

[53] C. Zhang, R. Kong, X. Wang, Y. Xu, F. Wang, W. Ren, Y. Wang, F. Su, J.-X. Jiang, Porous carbons derived from hypercrosslinked porous polymers for gas adsorption and energy storage, Carbon, 114 (2017) 608-618.

[54] L. Zubizarreta, J.A. Menéndez, N. Job, J.P. Marco-Lozar, J.P. Pirard, J.J. Pis, A. Linares-Solano, D. Cazorla-Amorós, A. Arenillas, Ni-doped carbon xerogels for H2 storage, Carbon, 48 (2010) 2722-2733.

[55] Y.-K. Choi, S.-J. Park, Hydrogen storage capacity of highly porous carbons synthesized from biomass-derived aerogels, Carbon letters, 16 (2015) 127-131.

[56] M.S. Balathanigaimani, W.-G. Shim, T.-H. Kim, S.-J. Cho, J.-W. Lee, H. Moon, Hydrogen storage on highly porous novel corn grain-based carbon monoliths, Catalysis Today, 146 (2009) 234-240.

[57] N. Kostoglou, C. Koczwara, S. Stock, C. Tampaxis, G. Charalambopoulou, T. Steriotis, O. Paris, C. Rebholz, C. Mitterer, Nanoporous polymer-derived activated carbon for hydrogen adsorption and electrochemical energy storage, Chem. Eng. J., 427 (2022).

[58] Y. Sun, P.A. Webley, Preparation of activated carbons from corncob with large specific surface area by a variety of chemical activators and their application in gas storage, Chem. Eng. J., 162 (2010) 883-892.

[59] S.J. Yang, T. Kim, J.H. Im, Y.S. Kim, K. Lee, H. Jung, C.R. Park, MOF-Derived Hierarchically Porous Carbon with Exceptional Porosity and Hydrogen Storage Capacity, Chem. Mater., 24 (2012) 464-470.

[60] Z. Peng, Y. Xu, W. Luo, C. Wang, L. Ma, Conversion of Biomass Wastes into Activated Carbons by Chemical Activation for Hydrogen Storage, ChemistrySelect, 5 (2020) 11221-11228.

[61] T. Chen, Y. Zhou, L. Luo, X. Wu, Z. Li, M. Fan, W. Zhao, Preparation and characterization of heteroatom self-doped activated biocarbons as hydrogen storage and supercapacitor electrode materials, Electrochim. Acta, 325 (2019).

[62] N. Alam, R. Mokaya, Evolution of optimal porosity for improved hydrogen storage in templated zeolite-like carbons, Energy & Environmental Science, 3 (2010).

[63] E. Masika, R. Mokaya, Exceptional gravimetric and volumetric hydrogen storage for densified zeolite templated carbons with high mechanical stability, Energy & Environmental Science, 7 (2014) 427-434.

[64] M. Sevilla, R. Mokaya, A.B. Fuertes, Ultrahigh surface area polypyrrole-based carbons with superior performance for hydrogen storage, Energy & Environmental Science, 4 (2011).

[65] Z. Bicil, M. Doğan, Characterization of Activated Carbons Prepared from Almond Shells and Their Hydrogen Storage Properties, Energy & Fuels, 35 (2021) 10227-10240.

[66] R. Mishra, P.R. Prasad, P. Panda, S. Barman, Highly Porous Activated N-Doped Carbon as an Ideal Electrode Material for Capacitive Energy Storage and Physisorption of H2, CO2, and CH4, Energy & Fuels, 35 (2021) 14177-14187.

[67] J. Wei, J. Zhao, D. Cai, W. Ren, H. Cao, T. Tan, Synthesis of micro/meso porous carbon for ultrahigh hydrogen adsorption using cross-linked polyaspartic acid, Frontiers of Chemical Science and Engineering, 14 (2020) 857-867.

[68] A. Ariharan, B. Viswanathan, V. Nandhakumar, Nitrogen-incorporated carbon nanotube derived from polystyrene and polypyrrole as hydrogen storage material, Int. J. Hydrogen Energy, 43 (2018) 5077-5088.

[69] M. Armandi, B. Bonelli, K. Cho, R. Ryoo, E. Garrone, Study of hydrogen physisorption on nanoporous carbon materials of different origin, Int. J. Hydrogen Energy, 36 (2011) 7937-7943.

[70] W. Hu, Y. Li, M. Zheng, Y. Xiao, H. Dong, Y. Liang, H. Hu, Y. Liu, Degradation of biomass components to prepare porous carbon for exceptional hydrogen storage capacity, Int. J. Hydrogen Energy, 46 (2021) 5418-5426.

[71] K. Li, S. Tao, J. Li, X. Wang, Controllable Fe introduction into ordered mesoporous carbon with interconnected small pores for investigating Fe doping effect on hydrogen adsorption, Int. J. Hydrogen Energy, 42 (2017) 4733-4740.

[72] R. Pedicini, S. Maisano, V. Chiodo, G. Conte, A. Policicchio, R.G. Agostino, Posidonia Oceanica and Wood chips activated carbon as interesting materials for hydrogen storage, Int. J. Hydrogen Energy, 45 (2020) 14038-14047.

[73] F. Suarez-Garcia, E. Vilaplana-Ortego, M. Kunowsky, M. Kimura, A. Oya, A. Linares-Solano, Activation of polymer blend carbon nanofibres by alkaline hydroxides and their hydrogen storage performances, Int. J. Hydrogen Energy, 34 (2009) 9141-9150.

[74] Z. Wang, L. Sun, F. Xu, H. Zhou, X. Peng, D. Sun, J. Wang, Y. Du, Nitrogen-doped porous carbons with high performance for hydrogen storage, Int. J. Hydrogen Energy, 41 (2016) 8489-8497.

[75] I. Wróbel-Iwaniec, N. Díez, G. Gryglewicz, Chitosan-based highly activated carbons for hydrogen storage, Int. J. Hydrogen Energy, 40 (2015) 5788-5796.

[76] Y. Xiao, H. Dong, C. Long, M. Zheng, B. Lei, H. Zhang, Y. Liu, Melaleuca bark based porous carbons for hydrogen storage, Int. J. Hydrogen Energy, 39 (2014) 11661-11667.

[77] W. Zhao, V. Fierro, N. Fernández-Huerta, M.T. Izquierdo, A. Celzard, Hydrogen uptake of high surface area-activated carbons doped with nitrogen, Int. J. Hydrogen Energy, 38 (2013) 10453-10460.

[78] Z. W, L. L, C. T, L. Z, Z. Z, F. M, Activated carbons from oil palm shell for hydrogen storage, IOP Conference Series: Materials Science and Engineering, (2018).

[79] S.Y. Lee, S.J. Park, Synthesis of zeolite-casted microporous carbons and their hydrogen storage capacity, J. Colloid Interface Sci., 384 (2012) 116-120.

[80] H. Wang, Q. Gao, J. Hu, High Hydrogen Storage Capacity of Porous Carbons Prepared by Using Activated Carbon, J. Am. Chem. Soc., (2009).

[81] A. Almasoudi, R. Mokaya, Preparation and hydrogen storage capacity of templated and activated carbons nanocast from commercially available zeolitic imidazolate framework, J. Mater. Chem., 22 (2012) 146-152.

[82] Z. Yang, Y. Xia, X. Sun, R. Mokaya, Preparation and Hydrogen Storage Properties of Zeolite-Templated Carbon Materials Nanocast via Chemical Vapor Deposition: Effect of the Zeolite Template and Nitrogen Doping, J. Phys. Chem. B (2006).

[83] M. Sevilla, N. Alam, R. Mokaya, Enhancement of Hydrogen Storage Capacity of Zeolite-Templated Carbons by Chemical Activation, J. Phys. Chem. C, (2010).

[84] N. Bader, A. Ouederni, Optimization of biomass-based carbon materials for hydrogen storage, Journal of Energy Storage, 5 (2016) 77-84.

[85] Y.-K. Choi, S.-J. Park, Preparation and characterization of sucrose-based microporous carbons for increasing hydrogen storage, Journal of Industrial and Engineering Chemistry, 28 (2015) 32-36.

[86] Y.-J. Heo, S.-J. Park, Synthesis of activated carbon derived from rice husks for improving hydrogen storage capacity, Journal of Industrial and Engineering Chemistry, 31 (2015) 330-334.

[87] Y.-W. You, E.-H. Moon, I. Heo, H. Park, J.-S. Hong, J.-K. Suh, Preparation and characterization of porous carbons from ion-exchange resins with different degree of cross-linking for hydrogen storage, Journal of Industrial and Engineering Chemistry, 45 (2017) 164-170.

[88] J. Wang, M. Oschatz, T. Biemelt, L. Borchardt, I. Senkovska, M.R. Lohe, S. Kaskel, Synthesis, characterization, and hydrogen storage capacities of hierarchical porous carbide derived carbon monolith, Journal of Materials Chemistry, 22 (2012).

[89] A. Almasoudi, R. Mokaya, Porosity modulation of activated ZIF-templated carbons via compaction for hydrogen and CO2 storage applications, Journal of Materials Chemistry A, 2 (2014).

[90] N. Balahmar, R. Mokaya, Pre-mixed precursors for modulating the porosity of carbons for enhanced hydrogen storage: towards predicting the activation behaviour of carbonaceous matter, Journal of Materials Chemistry A, 7 (2019) 17466-17479.

[91] A.D. Roberts, J.-S.M. Lee, S.Y. Wong, X. Li, H. Zhang, Nitrogen-rich activated carbon monoliths via ice-templating with high CO2 and H2 adsorption capacities, Journal of Materials Chemistry A, 5 (2017) 2811-2820.

[92] Y. Liu, D. Li, B. Lin, Y. Sun, X. Zhang, H. Yang, Hydrothermal synthesis of Ni-doped hierarchically porous carbon monoliths for hydrogen storage, J. Porous Mater., 22 (2015) 1417-1422.

[93] R. Melouki, P.L. Llewellyn, S. Tazibet, Y. Boucheffa, Hydrogen adsorption on activated carbons prepared from olive waste: effect of activation conditions on uptakes and adsorption energies, J. Porous Mater., 24 (2016) 1-11.

[94] S.-Y. Lee, S.-J. Park, Preparation and characterization of ordered porous carbons for increasing hydrogen storage behaviors, J. Solid State Chem., 184 (2011) 2655-2660.

[95] Z. Yang, Y. Xia, Y. Zhu, Preparation and gases storage capacities of N-doped porous activated carbon materials derived from mesoporous polymer, Mater. Chem. Phys., 141 (2013) 318-323.

[96] K.M. Rambau, N.M. Musyoka, N. Manyala, J. Ren, H.W. Langmi, Mechanochemical approach in the synthesis of activated carbons from waste tyres and its hydrogen storage applications, Materials Today: Proceedings, 5 (2018) 10505-10513.

[97] N. Alam, R. Mokaya, The effect of Al content of zeolite template on the properties and hydrogen storage capacity of zeolite templated carbons, Micropor. Mesopor. Mater., 144 (2011) 140-147.

[98] C. Guan, K. Wang, C. Yang, X.S. Zhao, Characterization of a zeolite-templated carbon for H2 storage application, Micropor. Mesopor. Mater., 118 (2009) 503-507.

[99] R. Yang, G. Liu, M. Li, J. Zhang, X. Hao, Preparation and N2, CO2 and H2 adsorption of super activated carbon derived from biomass source hemp (Cannabis sativa L.) stem, Micropor. Mesopor. Mater., 158 (2012) 108-116.

[100] B. Adeniran, R. Mokaya, Compactivation: A mechanochemical approach to carbons with superior porosity and exceptional performance for hydrogen and CO2 storage, Nano Energy, 16 (2015) 173-185.

[101] T.S. Blankenship Ii, N. Balahmar, R. Mokaya, Oxygen-rich microporous carbons with exceptional hydrogen storage capacity, Nat Commun, 8 (2017) 1545.

[102] E. Masika, R. Mokaya, Preparation of ultrahigh surface area porous carbons templated using zeolite 13X for enhanced hydrogen storage, Progress in Natural Science: Materials International, 23 (2013) 308-316.

[103] J. Choma, Ł. Osuchowski, M. Marszewski, M. Jaroniec, Highly microporous polymer-based carbons for CO2 and H2 adsorption, RSC Advances, 4 (2014).

[104] N.M. Musyoka, B.K. Mutuma, N. Manyala, Onion-derived activated carbons with enhanced surface area for improved hydrogen storage and electrochemical energy application, RSC Advances, 10 (2020) 26928-26936.

[105] X. Wu, Z. Tian, L. Hu, S. Huang, J. Cai, Macroalgae-derived nitrogen-doped hierarchical porous carbons with high performance for H2 storage and supercapacitors, RSC Advances, 7 (2017) 32795-32805.

[106] C. Guan, X. Zhang, K. Wang, C. Yang, Investigation of H2 storage in a templated carbon derived from zeolite Y and PFA, Sep. Purif. Technol., 66 (2009) 565-569.

[107] K. Xia, J. Hu, J. Jiang, Enhanced room-temperature hydrogen storage in super-activated carbons: The role of porosity development by activation, Appl. Surf. Sci., 315 (2014) 261-267.

[108] M.M.d. Castro, M. Martínez-Escandell, M. Molina-Sabio, F. Rodríguez-Reinoso, Hydrogen adsorption on KOH activated carbons from mesophase pitch containing Si, B, Ti or Fe, Carbon, 48 (2010) 636-644.

[109] E.W. Knight, A.K. Gillespie, M.J. Prosniewski, D. Stalla, E. Dohnke, T.A. Rash, P. Pfeifer, C. Wexler, Determination of the enthalpy of adsorption of hydrogen in activated carbon at room temperature, Int. J. Hydrogen Energy, 45 (2020) 15541-15552.

[110] F.D. Minuto, A. Policicchio, A. Aloise, R.G. Agostino, Liquid-like hydrogen in the micropores of commercial activated carbons, Int. J. Hydrogen Energy, 40 (2015) 14562-14572.

[111] S.J. Park, S.Y. Lee, A study on hydrogen-storage behaviors of nickel-loaded mesoporous MCM-41, J. Colloid Interface Sci., 346 (2010) 194-198.

[112] A. Martínez de Yuso, M. De Fina, C. Nita, P. Fioux, J. Parmentier, C. Matei Ghimbeu, Synthesis of sulfur-doped porous carbons by soft and hard templating processes for CO 2 and H 2 adsorption, Micropor. Mesopor. Mater., 243 (2017) 135-146.