Sónia Carabineiro
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Personal information

Sónia Carabineiro graduated in Applied Chemistry (branch of Biotechnology) at the NOVA School of Science and Technology (Universidade Nova de Lisboa), Portugal (FCT-UNL) and obtained her Ph.D. degree in Chemical Engineering (Catalysis) in 2001 at the same University. In 2000 she was an Invited Researcher at Leiden University, The Netherlands, and Post Doctoral Researcher from 2001 to 2003 at the same University. In 2004 she got a Post Doc grant at the Centre of Structural Chemistry of the University of Lisbon (CQE-IST). In 2007 she joined the Laboratory of Catalysis and Materials (LCM), part of Associate Laboratory LSRE-LCM, at the Department of Chemical Engineering (DEQ) of the Faculty of Engineering of the University of Porto (FEUP), as an Assistant Researcher, with a Ciencia 2007 grant from Foundation for Science and Technology (FCT). From 2013 to 2018 she was a Principal Researcher (Investigador FCT grant) at the same lab. She was Integrated Researcher of CQE-IST and Invited (Visiting) Professor at Wuhan Textile University, China in 2019.
She is now Assistant Professor at FCT-UNL (since 2020). She has also collaborations with other Universities of Portugal and abroad.
She is member of the Editorial Board of ChemCatChem and Scientific Reports of the Editorial Advisory Board of Catalysis Today and of the Editorial Board of Nanomaterials and Catalysts, among others. She is one the females reviewer in the world with more revisions done (Publons data) and evaluator of several international projects (including ERC grants). She is one the females reviewer in the world with more revisions done (Publons data) and evaluator of several international projects (including ERC grants). She was included in the list of the worldwide most cited scientists (top 2% of Chemistry) published by Stanford University since 2017. She was also chosen as one of the Portuguese Women in Science featured in the 4th Edition of the Book "Mulheres na Ciência" from Ciência Viva, Portugal in 2023.
Her research interests include: Catalysis by gold, nanostructured catalysts, mixed metal oxides, graphene, graphitic carbon nitride, carbon nanotubes, oxidation reactions (carbon monoxide, volatile organic compounds, hydrocarbons, alcohols), heterogenization of homogeneous catalysts, abatement of pollutants from water, soil and air.
In this page (Nova Research portal) only the articles published with Nova Affiliation are shown. For a list of all publications, please check the orcid or Scopus profile links available in the page.

Qualifications

Habilitation (Agregação) in Chemistry , Doctorate, Instituto Superior Técnico
Award Date: 12 Jun 2019

Chemical Engineering (Catalysis), Doctorate, Estudos de Conversão de No, N2o, Co2 e Adsorção/dessorção de So2 Usando Catalisadores Binários Suportados em Carvão Activado, Universidade NOVA de Lisboa
Award Date: 23 Feb 2001

Applied Chemistry, Bachelor, Biotechnology, Faculdade de Ciências e Tecnologia (FCT)
Award Date: 22 Dec 1994

Employment

Assistant Professor
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Research outputs

1. **Designing Multielement nanointerfaces in supported catalysts by ultra small lattice mismatch**
Sheng, Z., Lyu, S., Liu, X., Zhang, Y., Li, J., Zhu, J. & Carabineiro, S. A. C., 15 Feb 2024, In: Applied Surface Science. 646, 7 p., 158918.
2. **Enhancing visible-light-driven NO oxidation through molecular-level insights of dye-loaded sea sands**
Li, Y. H., Chen, B. F., Carabineiro, S. A. C., Duan, Y. Y., Tan, P., Ho, W. K. & Dong, F., Feb 2024, In: Rare Metals. 43, p. 543–554 12 p.
3. **Recent Advances on Zinc Ferrite and Its Derivatives as the Forerunner of the Nanomaterials in Catalytic Applications**
Anjaneyulu, B., Chinmay, Chauhan, V., Carabineiro, S. A. C. & Afshari, M., 26 Dec 2023, (E-pub ahead of print) In: Journal Of Inorganic And Organometallic Polymers And Materials. 21 p.
4. **Increasing the Photocatalytic Hydrogen Generation Activity of CdS Nanorods by Introducing Interfacial and Polarization Electric Fields**
Qi, Z., Chen, J., Li, Q., Wang, N., Carabineiro, S. A. C. & Lv, K., Dec 2023, In: Small. 19, 46, 9 p., 2303318.
5. **Users opinion about synthetic, bio- and nano-biopesticides**
Sreevidya, S., Sankarasubramanian, K., Katre, Y., Yadav, S., Asthana, A., Singh, A. K., Alexis, F. & Carabineiro, S. A. C., Dec 2023, In: Journal of Natural Pesticide Research. 6, 20 p., 100058.
6. **Impact of Chemical Composition on Eucalyptus Wood Clones for Sustainable Energy Production**
Vieira, T. A. S., Trugilho, P. F., Carabineiro, S. A. C., Zanuncio, A. J. V., Carvalho, A. G. & Branco-Vieira, M., 14 Nov 2023, In: Forests. 14, 11, 12 p., 2240.
7. **Novel organotin-PTA complexes supported on mesoporous carbon materials as recyclable catalysts for solvent-free cyanosilylation of aldehydes**
Mahmoud, A. G., Librando, I. L., Paul, A., Carabineiro, S. A. C., Ferraria, A. M., Botelho do Rego, A. M., Guedes da Silva, M. F. C., Geraldes, C. F. G. C. & Pombeiro, A. J. L., 1 Nov 2023, In: Catalysis Today. 423, 13 p., 114270.
8. **Catalytic combustion of volatile organic compounds using perovskite oxides catalysts-a review**
Wang, S., Xiao, P., Yang, J., Carabineiro, S. A. C., Wiśniewski, M., Zhu, J. & Liu, X., Nov 2023, In: Frontiers of Chemical Science and Engineering. 17, p. 1649–1676 28 p.
9. **Evaluation of Gold Complexes to Address Bacterial Resistance, Quorum Sensing, Biofilm Formation, and Their Antiviral Properties against Bacteriophages**
Marques, A., Carabineiro, S. A. C., Aureliano, M. & Faleiro, L., 26 Oct 2023, In: Toxics. 11, 11, 18 p., 879.
10. **Biogenic adsorbents for removal of drugs and dyes: A comprehensive review on properties, modification and applications**
Rehman, M. U., Taj, M. B. & Carabineiro, S. A. C., Oct 2023, In: Chemosphere. 338, 19 p., 139477.
11. **Gum-based nanocomposites for the removal of metals and dyes from waste water**
Usman, M., Taj, M. B. & Carabineiro, S. A. C., Oct 2023, In: Environmental Science and Pollution Research. 30, 46, p. 102027-102046 20 p.
12. **Environmentally Friendlier Printable Conductive and Piezoresistive Sensing Materials Compatible with Conformable Electronics**
Franco, M., Motealleh, A., Costa, C. M., Perinka, N., Ribeiro, C., Tubio, C. R., Carabineiro, S. A. C., Costa, P. & Lanceros-Méndez, S., 8 Sept 2023, In: ACS Applied Polymer Materials. 5, 9, p. 7144-7154 11 p.
13. **TpBD COF@ZnIn2S4 nanosheets: A novel S-scheme heterojunction with enhanced photoreactivity for hydrogen production**
Bao, S., Tan, Q., Wang, S., Guo, J., Lv, K., Carabineiro, S. A. C. & Wen, L., 5 Aug 2023, In: Applied Catalysis B-Environmental. 330, 12 p., 122624 .
14. **CuFe2O4 Magnetic Nanoparticles as Heterogeneous Catalysts for Synthesis of Dihydropyrimidinones as Inhibitors of SARS-CoV-2 Surface Proteins—Insights from Molecular Docking Studies**
Carabineiro, S. A. C., Dharma Rao, G. B., Singh, L., Anjaneyulu, B. & Afshari, M., 31 Jul 2023, In: Processes. 11, 8, 17 p., 2294.
15. **The Biogenic Synthesis of Bimetallic Ag/ZnO Nanoparticles: A Multifunctional Approach for Methyl Violet Photocatalytic Degradation and the Assessment of Antibacterial, Antioxidant, and Cytotoxicity Properties**
Afzal, M. A., Javed, M., Aroob, S., Javed, T., M. Alnoman, M., Alelwani, W., Bibi, I., Sharif, M., Saleem, M., Rizwan, M., Raheel, A., Maseeh, I., Carabineiro, S. A. C. & Taj, M. B., 15 Jul 2023, In: Nanomaterials. 13, 14, 20 p., 2079.

16. **Sulfonated Silica Coated $CoFe_2O_4$ Magnetic Nanoparticles for the Synthesis of 3,4-Dihydropyrimidin-2(1H)-One and Octahydroquinazoline Derivatives**
Afshari, M., Carabineiro, S. A. C. & Gorjizadeh, M., 9 Jun 2023, In: Catalysts. 13, 6, 14 p., 989.

17. **Comparison of biosorption efficiency for hexavalent chromium remediation in synthetic wastewater using unmodified and chemically modified chicken feathers**
Chakraborty, R., Asthana, A., Singh, A. K., Yadav, S. & Carabineiro, S. A. C., 4 Jun 2023, (E-pub ahead of print) In: Journal of Dispersion Science and Technology. 15 p.

18. **Remarkable formaldehyde photo-oxidation efficiency of Zn2SnO4 co-modified by Mo doping and oxygen vacancies**
Ren, Z., Chen, B., Li, Y., Carabineiro, S. A. C., Duan, Y. & Dong, F., 1 Apr 2023, In: Separation and Purification Technology. 310, 10 p., 123202 .

19. **双II型SnO_2@ZnS-$ZnSn(OH)_6$异质结构建内部电场用 于高效光催化NO氧化去除**
Chen, B., Ouyang, P., Li, Y., Duan, Y., Lv, K., Carabineiro, S. A. C. & Dong, F., Apr 2023, In: SCIENCE CHINA Materials. 66, 4, p. 1447-1459 13 p.

20. **Effect of oxygen vacancies on the photocatalytic activity of flower-like BiOBr microspheres towards NO oxidation and CO2 reduction**
Li, X., Li, K., Ding, D., Yan, J., Wang, C., Carabineiro, S. A. C., Liu, Y. & Lv, K., 15 Mar 2023, In: Separation and Purification Technology. 309, 10 p., 123054 .

21. **Green synthesis and photocatalytic dye degradation activity of CuO Nanoparticles**
Arooob, S., Carabineiro, S. A. C., Taj, M. B., Bibi, I., Raheel, A., Taved, T., Yahya, R., Alelwani, W., Verpoort, F., Kamwilaisak, K., Al-Farraj, S. & Sillanpää, M., 28 Feb 2023, In: Catalysts. 13, 18 p., 502.

22. **Synergistic effect of cyano defects and CaCO3 in graphitic carbon nitride nanosheets for efficient visible-light-driven photocatalytic NO removal**
Li, K., Zhou, W., Li, X., Li, Q., Carabineiro, S. A. C., Zhang, S., Fan, J. & Lv, K., 15 Jan 2023, In: Journal of Hazardous Materials. 442, 13 p., 130040.

23. **Ni, Co and Ni-Co-Modified Tungsten Carbides Obtained by an Electric Arc Method as Dry Reforming Catalysts**
Bolatova, Z., German, D., Pakrieva, E., Pak, A., Larionov, K., Carabineiro, S. A. C., Bogdanchikova, N., Kolobova, E. & Pestryakov, A., 13 Dec 2022, In: Catalysts. 12, 17 p., 1631.

24. **Triazaphosphaadamantane-functionalized terpyridine metal complexes: cyclohexane oxidation in homogeneous and carbon-supported catalysis**
Librando, I. L., Paul, A., Mahmoud, A. G., Gurbanov, A. V., Carabineiro, S. A. C., Silva, M. F. C. G. D., Geraldes, C. F. G. C. & Pombeiro, A. J. L., 1 Dec 2022, In: RSC Sustainability. 12 p.

25. **Facile preparation of methionine-functionalized graphene oxide/chitosan polymer nanocomposite aerogel for the efficient removal of dyes and metal ions from aqueous solutions**
Yadav, S., Asthana, A., Singh, A. K., Patel, J., Sreevidya, S. & Carabineiro, S. A. C., Dec 2022, In: Environmental nanotechnology, monitoring & management. 18, 16 p., 100743.

26. **A novel S-scheme 3D $ZnIn_2S_4/WO_3$ heterostructure for improved hydrogen production under visible light irradiation**
Zhao, M., Liu, S., Chen, D., Zhang, S., Carabineiro, S. A. C. & Lv, K., 30 Sept 2022, In: Chinese Journal of Catalysis. 43, 10, p. 2615-2624 10 p.

27. **Potential Development of N-Doped Carbon Dots and Metal-Oxide Carbon Dot Composites for Chemical and Biosensing**
Sahu, Y., Hashmi, A., Patel, R., Singh, A. K., Susan, M. A. B. H. & Carabineiro, S. A. C., 30 Sept 2022, In: Nanomaterials. 12, 19, 27 p., 3434.

28. **Research progress in metal sulfides for photocatalysis: From activity to stability**
Zhang, S., Ou, X., Xiang, Q., Carabineiro, S. A. C., Fan, J. & Lv, K., Sept 2022, In: Chemosphere. 303, 135085.

29. **Oxygen vacancies-induced photoreactivity enhancement of TiO_2 mesocrystals towards acetone oxidation**
Li, Y., Wu, X., Duan, Y., Huang, Z., Fan, J., Carabineiro, S. A. C. & Lv, K., 30 Aug 2022, In: Applied Surface Science. 594, 10 p., 153519.

30. **Aloe Vera Functionalized Magnetic Nanoparticles Entrapped Ca Alginate Beads as Novel Adsorbents for Cu(II) Removal from Aqueous Solutions**
Lilhare, S., Mathew, S. B., Singh, A. K. & Carabineiro, S. A. C., 26 Aug 2022, In: Nanomaterials. 12, 17, 20 p., 2947.

31. **Liquid-phase oxidation of betulin over supported Ag NPs catalysts: Kinetic regularities, catalyst deactivation and reactivation**
Grigoreva, A., Kolobova, E., Pakrieva, E., Mäki-Arvela, P., Kuznetsova, S., Carabineiro, S. A. C., Bogdanchikova, N., Pestryakov, A. & Murzin, D. Y., Aug 2022, In: Molecular Catalysis. 15 p., 112461.

32. **The Effect of Sibunit Carbon Surface Modification with Diazonium Tosylate Salts of Pd and Pd-Au Catalysts on Furfural Hydrogenation**
German, D., Kolobova, E., Pakrieva, E., Carabineiro, S. A. C., Sviridova, E., Perevezentsev, S., Alijani, S., Villa, A., Prati, L., Postnikov, P., Bogdanchikova, N. & Pestryakov, A., 1 Jul 2022, In: Materials. 15, 13, 22 p., 4695.

33. **Immobilization and Characterization of L-Asparaginase over Carbon Xerogels**
Barros, R. A. M., Cristóvão, R. O., Carabineiro, S. A. C., Neves, M. C., Freire, M. G., Faria, J. L., Santos-Ebinuma, V. C., Tavares, A. P. M. & Silva, C. G., Jun 2022, In: BioTech. 11, 2, 10.

34. **Production of high-quality forest wood biomass using artificial intelligence to control thermal modification**
Vieira, T. A. S., Trugilho, P. F., Carabineiro, S. A. C., Zanuncio, A. J. V., Carvalho, A. G., da Silva, L. F., Branco-Vieira, M., da Silva, C. M. S. & Carneiro, A. D. C. O., 26 Apr 2022, In: Biomass Conversion and Biorefinery. 17 p.

35. **Selective etching of in-situ formed La_2O_3 particles to prepare porous $LaCoO_3$ perovskite for catalytic combustion of ethyl acetate**
Wang, S., Zhu, J., Carabineiro, S. A. C., Xiao, P. & Zhu, Y., 5 Apr 2022, In: Applied Catalysis A: General. 635, 118554.

36. **Multifunctional hybrid membranes for photocatalytic and adsorptive removal of water contaminants of emerging concern**
Martins, P. M., Santos, B., Salazar, H., Carabineiro, S. A. C., Botelho, G., Tavares, C. J. & Lanceros-Mendez, S., Apr 2022, In: Chemosphere. 293, 133548.

37. **Templated Synthesis of Mesoporous Co_3O_4Nanostructures for the Liquid-Phase Aerobic Oxidation of Benzyl Alcohol to Benzaldehyde**
Li, K., Pei, Y., Xiao, P., He, Z., Carabineiro, S. A. C., Jiang, H. & Zhu, J., 25 Mar 2022, In: ACS APPLIED NANO MATERIALS. 5, 3, p. 3722-3732 11 p.

38. **Construction of Ag-Bridged Z-Scheme $LaFe_{0.5}Co_{0.5}O_3/Ag_{10}$/Graphitic Carbon Nitride Heterojunctions for Photo-Fenton Degradation of Tetracycline Hydrochloride: Interfacial Electron Effect and Reaction Mechanism**
Xu, X., Lin, H., Xiao, P., Zhu, J., Bi, H. & Carabineiro, S. A. C., 14 Feb 2022, In: Advanced Materials Interfaces. 9, 5, 2101902.

39. **Commercial Gold Complexes Supported on Functionalised Carbon Materials as Efficient Catalysts for the Direct Oxidation of Ethane to Acetic Acid**
Ribeiro, A. P. C., Matias, I. A. S., Carabineiro, S. A. C. & Martins, L. M. D. R. S., Feb 2022, In: Catalysts. 12, 2, 165.

40. **Chicken feathers derived materials for the removal of chromium from aqueous solutions: kinetics, isotherms, thermodynamics and regeneration studies**
Chakraborty, R., Asthana, A., Singh, A. K., Verma, R., Sankarasubramanian, S., Yadav, S., Carabineiro, S. A. C. & Susan, M. A. B. H., 2022, In: Journal of Dispersion Science and Technology. 43, 3

41. **Synthesis, characterization and antibacterial activity of a graphene oxide based NiO and starch composite material**
Dewangan, R., Asthana, A., Singh, A. K. & Carabineiro, S. A. C., 2022, In: Journal of Dispersion Science and Technology. 43, 4, p. 559–571 13 p.

42. **Heterogeneous gold nanoparticle-based catalysts for the synthesis of click-derived triazoles via the azide-alkyne cycloaddition reaction**
Librando, I. L., Mahmoud, A. G., Carabineiro, S. A. C., da Silva, M. F. C. G., Maldonado-Hódar, F. J., Geraldes, C. F. G. C. & Pombeiro, A. J. L., 31 Dec 2021, In: Catalysts. 12, 1, 45.

43. **Determination of the chemical composition of Eucalyptus spp. For cellulosic pulp production**
Vieira, T. A. S., Arriel, T. G., Zanuncio, A. J. V., Carvalho, A. G., Branco-Vieira, M., Carabineiro, S. A. C. & Trugilho, P. F., Dec 2021, In: Forests. 12, 12, 1649.

44. **Gold compounds inhibit the ca^{2+}-atpase activity of brain pmca and human neuroblastoma sh-sy5y cells and decrease cell viability**
Berrocal, M., Cordoba-Granados, J. J., Carabineiro, S. A. C., Gutierrez-Merino, C., Aureliano, M. & Mata, A. M., Dec 2021, In: Metals. 11, 12, 1934.

45. **Removal of Hydrophobic Contaminants from the Soil by Adsorption onto Carbon Materials and Microbial Degradation**
Dewangan, S., Bhatia, A. K., Singh, A. K. & Carabineiro, S. A. C., Dec 2021, In: C-JOURNAL OF CARBON RESEARCH. 7, 4, 83.

46. **Synthesis of a novel series of Cu(I) complexes bearing alkylated 1,3,5-triaza-7-phosphaadamantane as homogeneous and carbon-supported catalysts for the synthesis of 1-and 2-substituted-1,2,3-triazoles**
Librando, I. L., Mahmoud, A. G., Carabineiro, S. A. C., Guedes da Silva, M. F. C., Geraldes, C. F. G. C. & Pombeiro, A. J. L., 13 Oct 2021, In: Nanomaterials. 11, 10, 2702.

47. **Recent advances on Bismuth-based Photocatalysts: Strategies and mechanisms**
Zhang, L., Li, Y., Li, Q., Fan, J., Carabineiro, S. A. C. & Lv, K., 1 Sept 2021, In: Chemical Engineering Journal. 419, 129484.

48. **Solochrome dark blue azo dye removal by sonophotocatalysis using mn^{2+} doped zns quantum dots**
Patel, J., Singh, A. K., Jain, B., Yadav, S., Carabineiro, S. A. C. & Susan, M. A. B. H., Sept 2021, In: Catalysts. 11, 9, 1025.

49. **Control of surface functionalization of graphene-metal oxide polymer nanocomposites prepared by a hydrothermal method**
Dewangan, R., Asthana, A., Singh, A. K. & Carabineiro, S. A. C., Aug 2021, In: Polymer Bulletin.

50. **Effect of the metal deposition order on structural, electronic and catalytic properties of tio_2-supported bimetallic au-ag catalysts in 1-octanol selective oxidation**
Kotolevich, Y., Pakrieva, E., Kolobova, E., Farías, M. H., Bogdanchikova, N., Cortés Corberán, V., Pichugina, D., Nikitina, N., Carabineiro, S. A. C. & Pestryakov, A., Jul 2021, In: Catalysts. 11, 7, 799.

51. **Shape effects of ceria nanoparticles on the water-gas shift performance of cuo_x /ceo_2 catalysts**
Lykaki, M., Stefa, S., Carabineiro, S. A. C., Soria, M. A., Madeira, L. M. & Konsolakis, M., 21 Jun 2021, In: Catalysts. 11, 6, 753.

52. **Functionalized nanomaterial (FNM)-based catalytic materials for energy industry**
Bhatia, A. K., Dewangan, S., Singh, A. K. & Carabineiro, S. A. C., 14 Jun 2021, *Functionalized Nanomaterials for Catalytic Application.* Hussain, C. M., Shukla, S. K. & Mangla, B. (eds.). Massachusetts: Wiley, p. 53-88 36 p.

53. **Oxido-and dioxido-vanadium(V) complexes supported on carbon materials: Reusable catalysts for the oxidation of cyclohexane**
Sutradhar, M., Andrade, M. A., Carabineiro, S. A. C., Martins, L. M. D. R. S., da Silva, M. D. F. C. G. & Pombeiro, A. J. L., Jun 2021, In: Nanomaterials. 11, 6, 1456.

54. **Calcium alginate beads with entrapped iron oxide magnetic nanoparticles functionalized with methionine—a versatile adsorbent for arsenic removal**
Lilhare, S., Mathew, S. B., Singh, A. K. & Carabineiro, S. A. C., 20 May 2021, In: Nanomaterials. 11, 5, 1345.

55. **Green chemistry and environmental processes**
Carabineiro, S. A. C., Morales-Torres, S. & Maldonado-Hódar, F. J., 19 May 2021, In: Catalysts. 11, 5, 643.

56. **Adsorption of cationic dyes, drugs and metal from aqueous solutions using a polymer composite of magnetic/β-cyclodextrin/activated charcoal/Na alginate: Isotherm, kinetics and regeneration studies**
Yadav, S., Asthana, A., Singh, A. K., Chakraborty, R., Vidya, S. S., Susan, M. A. B. H. & Carabineiro, S. A. C., 5 May 2021, In: Journal of Hazardous Materials. 409, 124840.

57. **Erratum: Effect of alkali (Cs) doping on the surface chemistry and CO2hydrogenation performance of CuO/CeO2catalysts [Journal of CO2 Utilization (2021) 44 (101408) DOI: 10.1016/j.jcou.2020.101408)**
Varvoutis, G., Lykaki, M., Papista, E., Carabineiro, S. A. C., Psarras, A. C., Marnellos, G. E. & Konsolakis, M., Mar 2021, In: Journal of CO2 Utilization. 45

58. **Methionine-functionalized graphene oxide/sodium alginate bio-polymer nanocomposite hydrogel beads: Synthesis, isotherm and kinetic studies for an adsorptive removal of fluoroquinolone antibiotics**
Yadav, S., Asthana, A., Singh, A. K., Chakraborty, R., Sree Vidya, S., Singh, A. & Carabineiro, S. A. C., Mar 2021, In: Nanomaterials. 11, 3, p. 1-25 25 p., 568.

59. **Supported silver nanoparticles as catalysts for liquid-phase betulin oxidation**
Grigoreva, A., Kolobova, E., Pakrieva, E., Mäki-Arvela, P., Carabineiro, S. A. C., Gorbunova, A., Bogdanchikova, N., Murzin, D. Y. & Pestryakov, A., 12 Feb 2021, In: Nanomaterials. 11, 2, p. 1-24 24 p., 469.

60. **Effect of alkali (Cs) doping on the surface chemistry and CO_2hydrogenation performance of CuO/CeO_2catalysts**
Varvoutis, G., Lykaki, M., Papista, E., Carabineiro, S. A. C., Psarras, A. C., Marnellos, G. E. & Konsolakis, M., Feb 2021, In: Journal of CO2 Utilization. 44, 101408.

61. **The catalytic activity of carbon-supported Cu(I)-phosphine complexes for the microwave-assisted synthesis of 1,2,3-triazoles**
Librando, I. L., Mahmoud, A. G., Carabineiro, S. A. C., Guedes Da Silva, M. F. C., Geraldes, C. F. G. C. & Pombeiro, A. J. L., Feb 2021, In: Catalysts. 11, 2, p. 1-15 15 p., 185.

62. **Oxidation of 5-hydroxymethylfurfural on supported ag, au, pd and bimetallic pd-au catalysts: Effect of the support**
German, D., Pakrieva, E., Kolobova, E., Carabineiro, S. A. C., Stucchi, M., Villa, A., Prati, L., Bogdanchikova, N., Corberán, V. C. & Pestryakov, A., 14 Jan 2021, In: Catalysts. 11, 1, p. 1-20 20 p., 115.

63. **Kinetics of carbon nanotubes and graphene growth on iron and steel: Evidencing the mechanisms of carbon formation**
Lobo, L. S. & Carabineiro, S. A. C., 8 Jan 2021, In: Nanomaterials. 11, 1, p. 1-15 15 p., 143.

64. **Chapter 12: Carbon-supported Vanadium Catalysis**
Carabineiro, S. A. C., Martins, L. M. D. R. S. & Sutradhar, M., 2021, *Catalysis with Earth-abundant Elements.* Sutradhar, M., Da Silva, J. A. L. & Pombeiro, A. J. L. (eds.). 41 ed. RSC - Royal Society of Chemistry, p. 285-320 36 p. (RSC Catalysis Series; vol. 2021-January, no. 41).

65. **Functionalized nanomaterial (FNMs) based catalysts for energy industry**
Bhatia, A. K., Dewangan, S., Singh, A. K. & Carabineiro, S. A. C., 2021, *Functionalized Nanomaterials for Catalytic Applications: Trends & Development.* Hussain, C. M., Shukla, S. K. & Mangla, B. (eds.). Manila: Scrivener Publishing LLC, p. 53-88

66. **2D g-C_3N_4 for advancement of photo-generated carrier dynamics: Status and challenges**
Li, Y., Gu, M., Zhang, X., Fan, J., Lv, K., Carabineiro, S. A. C. & Dong, F., Dec 2020, In: Materials Today. p. 270-303

67. **Mechanisms of Carbon Nanotubes and Graphene Growth: Kinetics versus Thermodynamics**
Lobo, L. S. & Carabineiro, S. A. C., Dec 2020, In: C-JOURNAL OF CARBON RESEARCH. 6, 4, 67.

68. **Poly(vinylidene) fluoride membranes coated by heparin/collagen layer-by-layer, smart biomimetic approaches for mesenchymal stem cell culture**
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