

LIST OF PUBLICATIONS

OVERALL BIBLIOMETRIC INFORMATION

• <i>Number of peer-reviewed Articles</i>	>600
• <i>Number of Book Chapters</i>	>50
• <i>Number of Books</i>	12
• <i>Number of Patents</i>	7
• <i>Number of Total Citations</i>	>35,000
• <i>H-index (using Scopus)</i>	83

PUBLICATIONS

559. Boron nitride nanosheets supported highly homogeneous bimetallic AuPd alloy nanoparticles catalyst for hydrogen production from formic acid Shaybanizadeh, Shahram, Chermahini, Alireza Najafi, **Luque, Rafael**, *Nanotechnology* 2022, 33, 275601, DOI 10.1088/1361-6528/ac5e84

558. Efficient transfer hydrogenation of alkyl levulinates to gamma-valerolactone catalyzed by simple Zr-TiO₂ metal oxide systems Zhao, D., Su, T., Rodriguez-Padron, D., Lu, H., Len, C., **Luque, R. Yang, Z.**, *Materials Today Chemistry* 2022, 24, 100745, DOI 10.1016/j.mtchem.2021.100745

557. Bio-Construction of CuO Nanoparticles Using Texas Sage Plant Extract for catalytical degradation of Methylene blue Via Photocatalysis Ahmad, Awais, Khan, Mariam, Khan, Safia, **Luque, Rafael**, Abualnaja, Khamael M., Alduaij, O. K., Yousef, Tarek A., *Journal of Molecular Structure* 2022, 1256, 132522, DOI 10.1016/j.molstruc.2022.132522

556. Biofuel production from microalgae: challenges and chances, Anh Tuan Hoang, Sirohi, Ranjna, Pandey, Ashok, Nizetic, Sandro, Lam, Su Shiung, Chen, Wei-Hsin, **Luque, Rafael**, Thomas, Sabu, Arici, Muslum, Van Viet Pham, *Phytochemistry Reviews* 2022, DOI 10.1007/s11101-022-09819-y

555. Novel iron carbide based catalysts for biomass valorisation, Defilippi, Chiara, Rodriguez-Padron, Daily, **Luque, Rafael**, Winchester, Louise, Giordano, Cristina, *Journal of Cleaner Production* 2022, 347, 131279, DOI 10.1016/j.jclepro.2022.131279

554. Valorisation of nuts biowaste: Prospects in sustainable bio(nano)catalysts and environmental applications, Orooji, Yasin, Han, Ning, Nezafat, Zahra, Shafiei, Nasrin, Shen, Zhangfeng, Nasrollahzadeh, Mahmoud, Karimi-Maleh, Hassan, **Luque, Rafael**, Bokhari, Awais, Klemes, Jiri Jaromir, *Journal of Cleaner Production* 2022, 347, 131220, DOI 10.1016/j.jclepro.2022.131220

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552. Esterification of an Agro-Industrial Waste on Kaolinite-Derived Catalyst prepared via Microwave Irradiation, de Oliveira, Alex de Nazare, Ferreira, Irlon Maciel, Jimenez, David Esteban Quintero, da Silva, Lineia Soares, da Costa, Ana Alice Farias, Pires, Luiza Helena de Oliveira, **Luque, Rafael**, Osman, Sameh M., da Costa, Carlos Emmerson Ferreira, da Rocha Filho, Geraldo Narciso, do Nascimento, Luis Adriano Santos, *Waste and Biomass Valorization* 2022, DOI 10.1007/s12649-022-01779-w

- 551. Porphyrin Catecholate Iron-Based Metal-Organic Framework for Efficient Visible Light-Promoted One-Pot Tandem C-C Couplings**, Daliran, Saba, Khajeh, Mostafa, Oveisi, Ali Reza, Garcia, Hermenegildo, **Luque, Rafael**, *ACS Sustainable Chemistry & Engineering* 2022, 10, 5315-5322, DOI 10.1021/acssuschemeng.2c00645
- 550. Experimental and Theoretical Advances on Single Atom and Atomic Cluster-Decorated Low-Dimensional Platforms towards Superior Electrocatalysts**, He, Tianwei, Puente-Santiago, Alain R., Xia, Shiyu, Ahsan, Md Ariful, Xu, Guobao, **Luque, Rafael**, *Advanced Energy Materials* 2022, 2200493, DOI 10.1002/aenm.202200493
- 549. Mechanochemically designed bismuth-based halide perovskites for efficient photocatalytic oxidation of vanillyl alcohol**, Estrada-Pomares, Jose, Ramos-Terron, Susana, Lasarte-Aragones, Guillermo, Lucena, Rafael, Cardenas, Soledad, Rodriguez-Padron, Daily, **Luque, Rafael**, de Miguel, Gustavo, *Journal of Materials Chemistry A* 2022, DOI 10.1039/d1ta10323g
- 548. Tetracycline Adsorption from Aqueous Media by Magnetically Separable Fe₃O₄@Methylcellulose/APTMS: Isotherm, Kinetic and Thermodynamic Studies**, Maleky, Sobhan, Asadipour, Ali, Nasiri, Alireza, **Luque, Rafael**, Faraji, Maryam, *Journal of Polymers and the Environment* 2022, DOI 10.1007/s10924-022-02428-y
- 547. Advances in catalytic decarboxylation of bioderived fatty acids to diesel-range alkanes**, Chen, Bi-Shuang, Zeng, Yong-Yi, Liu, Lan, Chen, Lei, Duan, Peigao, **Luque, Rafael**, Ge, Ran, Zhang, Wuyuan, *Renewable & Sustainable Energy Reviews* 2022, 158, 112178, DOI 10.1016/j.rser.2022.112178
- 546. Molecular Catalysis for the Chemistry of the future: a perspective**, Hollmann, Frank, **Luque, Rafael**, Talarico, Giovanni, Tatsumi, Takashi, Yan, Ning, Han, Jeong Woo, Song, In Kyu, *Molecular Catalysis* 2022, 522, 112233, DOI 10.1016/j.mcat.2022.112233
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- 543. MOF-derived NiFe₂O₄ nanoparticles on molybdenum disulfide: Magnetically reusable nanocatalyst for the reduction of nitroaromatics in aqueous media**, Wang, Jinghan, Kim, Jaehyun, Bu, Jeewon, Kim, Dokyoon, Kim, Soo Young, Nam, Ki Tae, Varma, Rajender S., Jang, Ho Won, **Luque, Rafael**, Shokouhimehr, Mohammadreza, *Journal of Industrial and Engineering Chemistry* 2022, 107, 428-435, DOI 10.1016/j.jiec.2021.12.013
- 542. Effects on the Physicochemical Properties of Hydrochar Originating from Deep Eutectic Solvent (Urea and ZnCl₂)-Assisted Hydrothermal Carbonization of Sewage Sludge**, Xu, Zhixiang, Ma, Xueqin, Liao, Junjie, Osman, Sameh M., Wu, Shiyong, **Luque, Rafael**, *ACS Sustainable Chemistry & Engineering* 2022, 10, 4258-4268, DOI 10.1021/acssuschemeng.2c00086
- 541. Computational Mechanism of Methyl Levulinate Conversion to gamma-Valerolactone on UiO-66 Metal Organic Frameworks**, Ortuno, Manuel A., Rellan-Pineiro, Marcos, **Luque, Rafael**, *ACS Sustainable Chemistry & Engineering* 2022, 10, 3567-3573, DOI 10.1021/acssuschemeng.1c08021
- 540. Understanding flow chemistry for the production of active pharmaceutical ingredients** Burange, Anand S., Osman, Sameh M., **Luque, Rafael**, *Science* 2022, 25, 103892, DOI 10.1016/j.isci.2022.103892
- 539. Boosting the Ni-Catalyzed Hydrodeoxygenation (HDO) of Anisole Using Scrap Catalytic Converters**, Zuliani, Alessio, Kikhtyanin, Oleg, Cova, Camilla Maria, Rodriguez-Padron, Daily, Kubicka, David, **Luque, Rafael**, *Advanced Sustainable Systems* 2022, 6, 2100394, DOI 10.1002/adsu.202100394

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- 536. Facile and straightforward synthesis of Hydrazone derivatives**, Ain, Noor ul, Ansari, Tariq Mahmood, Shah Gilani, M. Rehan H., Xu, Guobao, Liang, Gaolin, **Luque, Rafael**, Alsaieri, Mabkhoot, Jalalah, Mohammed, *Journal of Nanomaterials* 2022, 3945810, DOI 10.1155/2022/3945810
- 535. Silver and Gold Nanoparticles for Antimicrobial Purposes against Multi-Drug Resistance Bacteria**, Rabiee, Navid, Ahmadi, Sepideh, Akhavan, Omid, **Luque, Rafael**, *Materials* 2022, 15, 1799, DOI 10.3390/ma15051799
- 534. Efficient Synthesis of Dihydropyrimidines Using a Highly Ordered Mesoporous Functionalized Pyridinium Organosilica**, Rajabi, Fatemeh, Sillanpaa, Mika, Len, Christophe, **Luque, Rafael**, *Catalysts* 2022, 12, 350, DOI 10.3390/catal12030350
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- 532. Hollow BiOCl Nanocaps with Tailored Openings for the Photocatalytic Degradation of Rhodamine B** Zhang, Yanqun, Zhao, Kefeng, Huang, Jingtao, Hsu, Hsien-Yi, Xu, Jingwei, **Luque, Rafael**, Niu, Wenxi, Xu, Guobao, *Applied nano materials* 2022, DOI 10.1021/acsnm.1c04011
- 531. Pd/CuO-Ni(OH)₂/C as a highly efficient and stable catalyst for the electrocatalytic oxidation of ethanol**, Zhang, Sifan, Pei, An, Li, Guang, Zhu, Lihua, Li, Guoda, Wu, Fengshun, Lin, Shuting, Chen, Wenqi, Chen, Bing Hui, **Luque, Rafael**, *Green Chemistry* 2022, 24, 2438-2450, DOI 10.1039/d1gc04799j
- 530. Characteristics of hydrogen production from steam gasification of plant-originated lignocellulosic biomass and its prospects in Vietnam** Anh Tuan Hoang, Huang, ZuoHua, Nizetic, Sandro, Pandey, Ashok, Xuan Phuong Nguyen, **Luque, Rafael**, Ong, Hwai Chyuan, Said, Zafar, Tri Hieu Le, Van Viet Pham, *International Journal of hydrogen energy* 2022, 47, 4394-4425, DOI 10.1016/j.ijhydene.2021.11.091
- 529. Low-dimensional heterostructures for advanced electrocatalysis: an experimental and computational perspective**, Ahsan, Md Ariful, He, Tianwei, Noveron, Juan C., Reuter, Karsten, Puente-Santiago, Alain R., **Luque, Rafael**, *Chemical Society Reviews* 2022, 51, 812-828, DOI 10.1039/d1cs00498k
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- 525. Reactive High-Valent Iron Intermediates in Enhancing Treatment of Water by Ferrate**. Sharma, V.K., Feng, M., Dionysiou, D.D., Zhou, H.C., Jinadatha, C., Manoli, K., Smith, M.F., **Luque, R.**, Ma, X. and Huang, C.H., 2021. *Environmental Science & Technology*.

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521. Synthesis, Characterization and Photodegradation Studies of Copper Oxide–Graphene Nanocomposites Raya, I., Ahmad, A., Alkaim, A.F., Bokov, D., Alwaily, E.R., **Luque, R***, Alsaari, M. and Jalalah, M., 2021.. *Coatings*, 11(12), p.1452. [10.3390/coatings11121452](https://doi.org/10.3390/coatings11121452)

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PATENTS (IF ANY)

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- 2) **Rafael Luque**, Alina M. Balu, Ana Franco Losilla, Antonio A. Romero. **Ref:** P201730465 **Title:** PROCEDIMIENTO PARA LA OBTENCIÓN DE BIOSÍLICE A PARTIR DE CÁSCARA DE ARROZ. **Priority country:** Spain. **Date:** 29/03/2017. Universidad de Cordoba
- 3) Vitaliy Budarin, Robin Jeremy White, **Rafael Luque**, Krzysztof Milkowski, James Hanley Clark, Duncan James MacQuarrie. **Ref:** US 08790548 B2 **Title:** Carbonaceous Materials. **Priority country:** Estados Unidos. **Date:** 29/07/2014. University of York. **Licensed to:** Starbon Technologies Ltd., currently under exploitation by Sigma-Aldrich Ltd.
- 4) **Rafael Luque**, Vitaliy Budarin, Robin Jeremy White, James Hanley Clark. **Ref:** WO 2009044146 A1. **Title:** Metal nanoparticles. **Priority country:** Reino Unido. **Date:** 09/04/2009. University of York. **Licensed to:** Starbon Technologies Ltd.