EfraÃ-m A Serna-Galvis

List of Publications by Year
in descending order

54 papers	1,803 citations	236833 25 h-index	276775 41 g-index
54 all docs	54 docs citations	54 times ranked	1640 citing authors

#	ARTICLE	IF	CITATIONS
1	Degradation of seventeen contaminants of emerging concern in municipal wastewater effluents by sonochemical advanced oxidation processes. Water Research, 2019, 154, 349-360.	5.3	131
2	Degradation of highly consumed fluoroquinolones, penicillins and cephalosporins in distilled water and simulated hospital wastewater by UV254 and UV254/persulfate processes. Water Research, 2017, 122, 128-138.	5.3	125
3	High frequency ultrasound as a selective advanced oxidation process to remove penicillinic antibiotics and eliminate its antimicrobial activity from water. Ultrasonics Sonochemistry, 2016, 31, 276-283.	3.8	102
4	Effective elimination of fifteen relevant pharmaceuticals in hospital wastewater from Colombia by combination of a biological system with a sonochemical process. Science of the Total Environment, 2019, 670, 623-632.	3.9	88
5	Degradation of the antibiotic oxacillin in water by anodic oxidation with Ti/IrO 2 anodes: Evaluation of degradation routes, organic by-products and effects of water matrix components. Chemical Engineering Journal, 2015, 279, 103-114.	6.6	86
6	Comparison of route, mechanism and extent of treatment for the degradation of a Î²-lactam antibiotic by TiO 2 photocatalysis, sonochemistry, electrochemistry and the photo-Fenton system. Chemical Engineering Journal, 2016, 284, 953-962.	6.6	81
7	Sonochemical degradation of the pharmaceutical fluoxetine: Effect of parameters, organic and inorganic additives and combination with a biological system. Science of the Total Environment, 2015, 524-525, 354-360.	3.9	80
8	A review on pharmaceuticals removal from waters by single and combined biological, membrane filtration and ultrasound systems. Ultrasonics Sonochemistry, 2021, 76, 105656.	3.8	77
9	Comparative study of the effect of pharmaceutical additives on the elimination of antibiotic activity during the treatment of oxacillin in water by the photo-Fenton, TiO 2 -photocatalysis and electrochemical processes. Science of the Total Environment, 2016, 541, 1431-1438.	3.9	75
10	Sonochemical degradation of antibiotics from representative classes-Considerations on structural effects, initial transformation products, antimicrobial activity and matrix. Ultrasonics Sonochemistry, 2019, 50, 157-165.	3.8	61
11	Removal of antibiotic cloxacillin by means of electrochemical oxidation, TiO2 photocatalysis, and photo-Fenton processes: analysis of degradation pathways and effect of the water matrix on the elimination of antimicrobial activity. Environmental Science and Pollution Research, 2017, 24, 6339-6352.	2.7	55
12	Structure-reactivity relationship in the degradation of three representative fluoroquinolone antibiotics in water by electrogenerated active chlorine. Chemical Engineering Journal, 2017, 315, 552-561.	6.6	54
13	Degradation of the emerging concern pollutant ampicillin in aqueous media by sonochemical advanced oxidation processes - Parameters effect, removal of antimicrobial activity and pollutant treatment in hydrolyzed urine. Journal of Environmental Management, 2020, 261, 110224.	3.8	52
14	Elimination of Isoxazolyl-Penicillins antibiotics in waters by the ligninolytic native Colombian strain Leptosphaerulina sp. considerations on biodegradation process and antimicrobial activity removal. Science of the Total Environment, 2018, 630, 1195-1204.	3.9	47
15	Inactivation of carbapenem-resistant Klebsiella pneumoniae by photo-Fenton: Residual effect, gene evolution and modifications with citric acid and persulfate. Water Research, 2019, 161, 354-363.	5.3	47
16	TiO 2 photocatalysis applied to the degradation and antimicrobial activity removal of oxacillin: Evaluation of matrix components, experimental parameters, degradation pathways and identification of organics by-products. Journal of Photochemistry and Photobiology A: Chemistry, 2015, 311, 95-103.	2.0	41
17	Electrochemical treatment of penicillin, cephalosporin, and fluoroquinolone antibiotics via active chlorine: evaluation of antimicrobial activity, toxicity, matrix, and their correlation with the degradation pathways. Environmental Science and Pollution Research, 2017, 24, 23771-23782.	2.7	39
18	Developments in the intensification of photo-Fenton and ozonation-based processes for the removal of contaminants of emerging concern in Ibero-American countries. Science of the Total Environment, 2021, 765, 142699.	3.9	39

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19	Treatment of wastewater effluents from BogotÃ¡ â€“ Colombia by the photo-electro-Fenton process: Elimination of bacteria and pharmaceutical. Science of the Total Environment, 2021, 772, 144890.	3.9	38
20	Comparative degradation of two highly consumed antihypertensives in water by sonochemical process. Determination of the reaction zone, primary degradation products and theoretical calculations on the oxidative process. Ultrasonics Sonochemistry, 2019, 58, 104635.	3.8	37
21	Removal of Î²-lactam antibiotics from pharmaceutical wastewaters using photo-Fenton process at near-neutral pH. Environmental Science and Pollution Research, 2018, 25, 20293-20303.	2.7	33
22	Sonolysis. , 2018, , 177-213.		33
23	Elimination of carbapenem resistant Klebsiella pneumoniae in water by UV-C, UV-C/persulfate and UV-C/H2O2. Evaluation of response to antibiotic, residual effect of the processes and removal of resistance gene. Journal of Environmental Chemical Engineering, 2020, 8, 102196.	3.3	30
24	Photoinduced disinfection in sunlit natural waters: Measurement of the second order inactivation rate constants between E.Âcoli and photogenerated transient species. Water Research, 2018, 147, 242-253.	5.3	29
25	A critical review on the sonochemical degradation of organic pollutants in urine, seawater, and mineral water. Ultrasonics Sonochemistry, 2022, 82, 105861.	3.8	28
26	Elimination of representative fluoroquinolones, penicillins, and cephalosporins by solar photo-Fenton: degradation routes, primary transformations, degradation improvement by citric acid addition, and antimicrobial activity evolution. Environmental Science and Pollution Research, 2020, 27, 41381-41393.	2.7	27
27	Kinetic modeling of lag times during photo-induced inactivation of E.Âcoli in sunlit surface waters: Unraveling the pathways of exogenous action. Water Research, 2019, 163, 114894.	5.3	26
28	Understanding the effects of mineral water matrix on degradation of several pharmaceuticals by ultrasound: Influence of chemical structure and concentration of the pollutants. Ultrasonics Sonochemistry, 2021, 73, 105500.	3.8	22
29	Evaluation of process influencing factors, degradation products, toxicity evolution and matrix-related effects during electro-Fenton removal of piroxicam from waters. Journal of Environmental Chemical Engineering, 2019, 7, 103400.	3.3	21
30	Photocatalytic vs. sonochemical removal of antibiotics in water: Structure-degradability relationship, mineralization, antimicrobial activity, and matrix effects. Journal of Environmental Chemical Engineering, 2020, 8, 104359.	3.3	20
31	Degradation of Losartan in Fresh Urine by Sonochemical and Photochemical Advanced Oxidation Processes. Water (Switzerland), 2020, 12, 3398.	1.2	19
32	Effect of the presence of inorganic ions and operational parameters on free cyanide degradation by ultraviolet C activation of persulfate in synthetic mining wastewater. Minerals Engineering, 2021, 170, 107031.	1.8	16
33	Treatment of two sartan antihypertensives in water by photo-electro-Fenton using BDD anodes: Degradation kinetics, theoretical analyses, primary transformations and matrix effects. Chemosphere, 2021, 270, 129491.	4.2	14
34	Coupling chemical oxidation processes and Leptosphaerulina sp. myco-remediation to enhance the removal of recalcitrant organic pollutants in aqueous systems. Science of the Total Environment, 2021, 772, 145449.	3.9	13
35	An Initial Approach to the Presence of Pharmaceuticals in Wastewater from Hospitals in Colombia and Their Environmental Risk. Water (Switzerland), 2022, 14, 950.	1.2	12
36	Degradation of hexacyanoferrate (III) ion by the coupling of the ultraviolet light and the activation of persulfate at basic pH. Journal of Environmental Chemical Engineering, 2021, 9, 106233.	3.3	11

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37	Data on treatment of nafcillin and ampicillin antibiotics in water by sonochemistry. Data in Brief, 2020, 29, 105361.	0.5	10
38	Irreversible inactivation of carbapenem-resistant Klebsiella pneumoniae and its genes in water by photo-electro-oxidation and photo-electro-Fenton - Processes action modes. Science of the Total Environment, 2021, 792, 148360.	3.9	10
39	Enhanced solar photo-electro-Fenton by Theobroma grandiflorum addition during pharmaceuticals elimination in municipal wastewater: Action routes, process improvement, and biodegradability of the treated water. Journal of Environmental Chemical Engineering, 2022, 10, 107489.	3.3	9
40	Dataset on the degradation of losartan by TiO2-photocatalysis and UVC/persulfate processes. Data in Brief, 2020, 31, 105692.	0.5	8
41	Degradation of Recalcitrant Safranin T Through an Electrochemical Process and Three Photochemical Advanced Oxidation Technologies. Water, Air, and Soil Pollution, 2017, 228, 1.	1.1	7
42	Improvement of solar photo-Fenton by extracts of amazonian fruits for the degradation of pharmaceuticals in municipal wastewater. Environmental Science and Pollution Research, 2022, 29, 42146-42156.	2.7	7
43	Dataset on application of electrochemical and photochemical processes for sulfacetamide antibiotic elimination in water. Data in Brief, 2020, 29, 105158.	0.5	6
44	Superior selectivity of high-frequency ultrasound toward chorine containing-pharmaceuticals elimination in urine: A comparative study with other oxidation processes through the elucidation of the degradation pathways. Ultrasonics Sonochemistry, 2021, 80, 105814.	3.8	6
45	Sonochemical Advanced Oxidation Processes for the Removal of Pharmaceuticals in Wastewater Effluents. Handbook of Environmental Chemistry, 2020, , 349-381.	0.2	5
46	Electrochemical Degradation of Naproxen (NPX) and Diclofenac (DFC) through Active Chlorine Species (Cl₂-active): Considerations on Structural Aspects and Degradation in Urine. ECS Transactions, 2021, 100, 55-71.	0.3	5
47	Understanding the Role of Complexation of Fluoroquinolone and Î²-Lactam Antibiotics with Iron (III) on the Photodegradation under Solar Light and UVC Light. Water (Switzerland), 2021, 13, 2603.	1.2	5
48	Tratamiento de aguas contaminadas con colorantes mediante fotocatÃ¡lisis con TiO2 usando luz artificial y solar. Produccion Y Limpia, 2017, 12, 50-60.	0.2	4
49	Photochemical and photocatalytical degradation of antibiotics in water promoted by solar irradiation. , 2020, , 211-243.		3
50	Recent developments in sonochemical treatments of contaminated wastewaters. , 2021, , 299-315.		3
51	WÃ¼stite as a catalyst source for water remediation: Differentiated antimicrobial activity of by-products, action routes of the process, and transformation of fluoroquinolones. Chemical Engineering Journal, 2022, 435, 134850.	6.6	3
52	An alternative approach to the kinetic modeling of pharmaceuticals degradation in high saline water by electrogenerated active chlorine species. Journal of Environmental Management, 2022, 315, 115119.	3.8	3
53	Use of CdS from Teaching-Laboratory Wastes as a Photocatalyst for the Degradation of Fluoroquinolone Antibiotics in Water. Water (Switzerland), 2021, 13, 2154.	1.2	0
54	Indirect electrochemical degradation of acetaminophen: process performance, pollutant transformation, and matrix effects evaluation. Revista Facultad De IngenierÃa, 0, , .	0.5	0