Vassilis Stathopoulos

List of Publications by Year
in descending order

116 papers	3,930 citations	147801 31 h-index	138484 58 g-index
121 all docs	121 docs citations	121 times ranked	3930 citing authors

#	Article	IF	Citations
1	Ceria nanoparticles shape effects on the structural defects and surface chemistry: Implications in CO oxidation by Cu/CeO2 catalysts. Applied Catalysis B: Environmental, 2018, 230, 18-28.	20.2	359
2	Recent Advances on Nitrous Oxide (N₂O) Decomposition over Non-Noble-Metal Oxide Catalysts: Catalytic Performance, Mechanistic Considerations, and Surface Chemistry Aspects. ACS Catalysis, 2015, 5, 6397-6421.	11.2	297
3	The role of Copperâ€“Ceria interactions in catalysis science: Recent theoretical and experimental advances. Applied Catalysis B: Environmental, 2016, 198, 49-66.	20.2	241
4	An Investigation of the NO/H2/O2 (Lean-deNOx) Reaction on a Highly Active and Selective Pt/La0.5Ce0.5MnO3 Catalyst. Journal of Catalysis, 2001, 197, 350-364.	6.2	155
5	An Investigation of the NO/H2/O2 (Lean De-NOx) Reaction on a Highly Active and Selective Pt/La0.7Sr0.2Ce0.1FeO3 Catalyst at Low Temperatures. Journal of Catalysis, 2002, 209, 456-471.	6.2	123
6	Ultrasound-assisted removal of Acid Red 17 using nanosized Fe3O4-loaded coffee waste hydrochar. Ultrasonics Sonochemistry, 2017, 35, 72-80.	8.2	102
7	Titanium dioxide (TiOâ„‚)-based photocatalyst materials activity enhancement for contaminants of emerging concern (CECs) degradation: In the light of modification strategies. Chemical Engineering Journal Advances, 2022, 10, 100262.	5.2	102
8	Surface and redox properties of cobaltâ€“ceria binary oxides: On the effect of Co content and pretreatment conditions. Applied Surface Science, 2015, 341, 48-54.	6.1	95
9	A comprehensive review of recent advances in materials aspects of phase change materials in thermal energy storage. Energy Procedia, 2019, 161, 385-394.	1.8	94
10	Redox properties and VOC oxidation activity of Cu catalysts supported on Ce1âˆ’xSmxOÎ´ mixed oxides. Journal of Hazardous Materials, 2013, 261, 512-521.	12.4	92
11	Phase change materials in solar domestic hot water systems: A review. International Journal of Thermofluids, 2021, 10, 100075.	7.8	83
12	Preparation of novel CeO2-biochar nanocomposite for sonocatalytic degradation of a textile dye. Ultrasonics Sonochemistry, 2018, 41, 503-513.	8.2	81
13	Cu2O-CuO@biochar composite: Synthesis, characterization and its efficient photocatalytic performance. Applied Surface Science, 2019, 498, 143846.	6.1	71
14	Impact of the synthesis parameters on the solid state properties and the CO oxidation performance of ceria nanoparticles. RSC Advances, 2017, 7, 6160-6169.	3.6	67
15	Hydrogen Production by Ethanol Steam Reforming (ESR) over CeO2 Supported Transition Metal (Fe, Co,) Tj ETQq1 1 0.784314 rgBT /Ov	3.5	66
16	Recent Advances on the Rational Design of Non-Precious Metal Oxide Catalysts Exemplified by CuOx/CeO2 Binary System: Implications of Size, Shape and Electronic Effects on Intrinsic Reactivity and Metal-Support Interactions. Catalysts, 2020, 10, 160.	3.5	66
17	What about greener phase change materials? A review on biobased phase change materials for thermal energy storage applications. International Journal of Thermofluids, 2021, 10, 100081.	7.8	65
18	Deciphering the role of Ni particle size and nickel-ceria interfacial perimeter in the low-temperature CO2 methanation reaction over remarkably active Ni/CeO2 nanorods. Applied Catalysis B: Environmental, 2021, 297, 120401.	20.2	65

#	Article	IF	Citations
19	Facet-Dependent Reactivity of Fe2O3/CeO2 Nanocomposites: Effect of Ceria Morphology on CO Oxidation. Catalysts, 2019, 9, 371.	3.5	58
20	Experimental and computational investigation of a latent heat energy storage system with a staggered heat exchanger for various phase change materials. Thermal Science and Engineering Progress, 2018, 7, 87-98.	2.7	55
21	Comparative study of Laâ€“Srâ€“Feâ€“O perovskite-type oxides prepared by ceramic and surfactant methods over the CH4 and H2 lean-deNOx. Applied Catalysis B: Environmental, 2009, 93, 1-11.	20.2	51
22	CO2 Hydrogenation over Nanoceria-Supported Transition Metal Catalysts: Role of Ceria Morphology (Nanorods versus Nanocubes) and Active Phase Nature (Co versus Cu). Nanomaterials, 2019, 9, 1739.	4.1	45
23	Characterisation and management of ash produced in the hospital waste incinerator of Athens, Greece. Journal of Hazardous Materials, 2011, 187, 421-432.	12.4	41
24	Remarkable efficiency of Ni supported on hydrothermally synthesized CeO2 nanorods for low-temperature CO2 hydrogenation to methane. Catalysis Communications, 2020, 142, 106036.	3.3	41
25	Assessment of biochar as feedstock in a direct carbon solid oxide fuel cell. RSC Advances, 2015, 5, 73399-73409.	3.6	40
26	Design of functionally graded multilayer thermal barrier coatings for gas turbine application. Surface and Coatings Technology, 2016, 295, 20-28.	4.8	39
27	Structural ceramics containing electric arc furnace dust. Journal of Hazardous Materials, 2013, 262, 91-99.	12.4	38
28	A novel method for estimating the C-values of the BET equation in the whole range 0<P/Po<1 using a Scatchard-type treatment of it. Microporous and Mesoporous Materials, 2004, 69, 97-107.	4.4	36
29	Impact of processing parameters on tensile strength, in-process crystallinity and mesostructure in FDM-fabricated PLA specimens. Rapid Prototyping Journal, 2019, 25, 1398-1410.	3.2	36
30	Characterization of Al- and Ti-modified MCM-41 using adsorption techniques. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2004, 250, 289-306.	4.7	34
31	Influence of organic phase change materials on the physical and mechanical properties of HDPE and PP polymers. RSC Advances, 2018, 8, 27438-27447.	3.6	33
32	Facet-Dependent Reactivity of Ceria Nanoparticles Exemplified by CeO2-Based Transition Metal Catalysts: A Critical Review. Catalysts, 2021, 11, 452.	3.5	33
33	Optimization of N₂O decomposition activity of CuOâ€“CeO₂ mixed oxides by means of synthesis procedure and alkali (Cs) promotion. Catalysis Science and Technology, 2018, 8, 2312-2322.	4.1	32
34	Evaluation of LaAlO3 as top coat material for thermal barrier coatings. Transactions of Nonferrous Metals Society of China, 2018, 28, 1582-1592.	4.2	31
35	The Effect of CeO2 Preparation Method on the Carbon Pathways in the Dry Reforming of Methane on Ni/CeO2 Studied by Transient Techniques. Catalysts, 2019, 9, 621.	3.5	31
36	Temperature-programmed C18O2 SSITKA for powders of fast oxide-ion conductors: Estimation of oxygen self-diffusion coefficients. Solid State Ionics, 2015, 271, 69-72.	2.7	30

#	Article	IF	Citations
37	The influence of surface acid density on the freezing behavior of water confined in mesoporous MCM-41 solids. Microporous and Mesoporous Materials, 2001, 49, 1-13.	4.4	29
38	Synthesis and characterization of doped apatite-type lanthanum silicates for SOFC applications. Solid State Ionics, 2011, 192, 158-162.	2.7	29
39	Ethyl Acetate Abatement on Copper Catalysts Supported on Ceria Doped with Rare Earth Oxides. Molecules, 2016, 21, 644.	3.8	29
40	A Ni/apatite-type lanthanum silicate supported catalyst in glycerol steam reforming reaction. RSC Advances, 2016, 6, 78954-78958.	3.6	28
41	Bioelectricity production from fermentable household waste extract using a single chamber microbial fuel cell. Energy Procedia, 2019, 161, 2-9.	1.8	28
42	H2-SCR of NOx on low-SSA CeO2-supported Pd: The effect of Pd particle size. Applied Catalysis A: General, 2021, 615, 118062.	4.3	28
43	Water-Repellent Approaches for 3-D Printed Internal Passages. Materials and Manufacturing Processes, 2016, 31, 1162-1170.	4.7	27
44	An investigation of the physical structure of MCM-41 novel mesoporous materials using a corrugated pore structure model. Applied Catalysis A: General, 2001, 216, 23-39.	4.3	26
45	Synthesis, Characterization, and Photocatalytic Evaluation of Manganese (III) Phthalocyanine Sensitized ZnWO4 (ZnWO4MnPc) for Bisphenol A Degradation under UV Irradiation. Nanomaterials, 2020, 10, 2139.	4.1	26
46	Enhanced Photocatalytic Activity of CuWO4 Doped TiO2 Photocatalyst Towards Carbamazepine Removal under UV Irradiation. Separations, 2021, 8, 25.	2.4	26
47	Effect of alkali (Cs) doping on the surface chemistry and CO2 hydrogenation performance of CuO/CeO2 catalysts. Journal of CO2 Utilization, 2021, 44, 101408.	6.8	26
48	Pore Structureâ^'Chemical Composition Interactions of New High Surface Area Manganese Based Mesoporous Materials. Materials Preparation, Characterization, and Catalytic Activity. Langmuir, 2002, 18, 423-432.	3.5	23
49	Droplet Mobility Manipulation on Porous Media Using Backpressure. Langmuir, 2016, 32, 5250-5258.	3.5	22
50	Evaluation of organic coatings for corrosion protection of condensing economizers. Procedia Structural Integrity, 2018, 10, 295-302.	0.8	21
51	Effect of the Preparation Method on the Physicochemical Properties and the CO Oxidation Performance of Nanostructured CeO2/TiO2 Oxides. Processes, 2020, 8, 847.	2.8	21
52	Silver Doped Zinc Stannate (Ag-ZnSnO3) for the Photocatalytic Degradation of Caffeine under UV Irradiation. Water (Switzerland), 2021, 13, 1290.	2.7	21
53	Reversible pressure-induced switching of droplet mobility after impingement on porous surface media. Applied Physics Letters, 2013, 103, .	3.3	20
54	Reversible and dynamic transitions between sticky and slippery states on porous surfaces with ultra-low backpressure. RSC Advances, 2015, 5, 33666-33673.	3.6	20

#	Article	IF	Citations
55	Development and experimental testing of a compact thermal energy storage tank using paraffin targeting domestic hot water production needs. Thermal Science and Engineering Progress, 2020, 19, 100573.	2.7	20
56	Electrochemical Characterization of a La0.8Sr0.2Ni0.4Fe0.6O3-Î´ Electrode Interfaced with La9.83Si5Al0.75Fe0.25O26{plus minus}Î´ Apatite-type Electrolyte. ECS Transactions, 2009, 25, 2681-2688.	0.5	19
57	Tailoring properties of reticulated vitreous carbon foams with tunable density. Frontiers of Materials Science, 2016, 10, 157-167.	2.2	19
58	Differential scanning calorimetry based evaluation of 3D printed PLA for phase change materials encapsulation or as container material of heat storage tanks. Energy Procedia, 2019, 161, 429-437.	1.8	18
59	Catalytic activity of high surface area mesoporous Mn-based mixed oxides for the deep oxidation of methane and lean-NOx reduction. Studies in Surface Science and Catalysis, 2000, 130, 1529-1534.	1.5	16
60	Synthesis and characterization of packed mesoporous tungsteno-silicates: application to the catalytic dehydrogenation of 2-propanol. Applied Catalysis A: General, 2004, 263, 103-108.	4.3	16
61	LaAlO3 as overlayer in conventional thermal barrier coatings. Procedia Structural Integrity, 2018, 10, 280-287.	0.8	16
62	Ceria Nanoparticlesâ€™ Morphological Effects on the N2O Decomposition Performance of Co3O4/CeO2 Mixed Oxides. Catalysts, 2019, 9, 233.	3.5	16
63	Investigating the Utility of Fabric Phase Sorptive Extraction and HPLC-UV-Vis/DAD to Determine Antidepressant Drugs in Environmental Aqueous Samples. Separations, 2020, 7, 39.	2.4	16
64	Preparation, characterization and surface acid catalytic activity of microporous clays pillared with Al1â^'xFexOy (x=0.00 to 1.00) oxidic species. Microporous and Mesoporous Materials, 1999, 31, 111-121.	4.4	15
65	Controlled deposition of fullerene derivatives within a graphene template by means of a modified Langmuir-Schaefer method. Journal of Colloid and Interface Science, 2018, 524, 388-398.	9.4	15
66	Immobilized TiO2/ZnO Sensitized Copper (II) Phthalocyanine Heterostructure for the Degradation of Ibuprofen under UV Irradiation. Separations, 2021, 8, 24.	2.4	15
67	Active porous valves for plug actuation and plug flow manipulation in open channel fluidics. RSC Advances, 2015, 5, 104594-104600.	3.6	14
68	Design criteria for coatings in next generation condensing economizers. Energy Procedia, 2019, 161, 412-420.	1.8	14
69	Experimental assessment of a full scale prototype thermal energy storage tank using paraffin for space heating application. International Journal of Thermofluids, 2020, 1-2, 100003.	7.8	14
70	Investigating the performance of a thermal energy storage unit with paraffin as phase change material, targeting buildingsâ€™ cooling needs: an experimental approach. International Journal of Thermofluids, 2020, 3-4, 100027.	7.8	14
71	Evaluation of Zn- and Fe- rich organic coatings for corrosion protection and condensation performance on waste heat recovery surfaces. International Journal of Thermofluids, 2020, 3-4, 100025.	7.8	14
72	Doped apatite-type lanthanum silicates in CO oxidation reaction. Catalysis Communications, 2018, 114, 98-103.	3.3	14

#	Article	IF	Citations
73	Hydrothermal Synthesis of ZnOâ€“doped Ceria Nanorods: Effect of ZnO Content on the Redox Properties and the CO Oxidation Performance. Applied Sciences (Switzerland), 2020, 10, 7605.	2.5	13
74	La2Zr2O7/LaAlO3 composite prepared by mixing precipitated precursors: Evolution of its structure under sintering. Materials Chemistry and Physics, 2020, 251, 123093.	4.0	12
75	Shape Effects of Ceria Nanoparticles on the Waterâ€'Gas Shift Performance of CuOx/CeO2 Catalysts. Catalysts, 2021, 11, 753.	3.5	12
76	Title is missing!. Reaction Kinetics and Catalysis Letters, 2001, 72, 49-55.	0.6	11
77	Phosphotungstate anions supported on spherical beads of carbon as highly efficient catalysts for the dehydration of propan-2-ol to propene. Applied Catalysis A: General, 2003, 241, 217-226.	4.3	11
78	The structure and texture genesis of apatite-type lanthanum silicates during their synthesis by co-precipitation. Ceramics International, 2015, 41, 13393-13408.	4.8	11
79	Synthesis of copper (I, II) oxides/hydrochar nanocomposites for the efficient sonocatalytic degradation of organic contaminants. Journal of Industrial and Engineering Chemistry, 2021, 95, 73-82.	5.8	11
80	A facile method for the preparation of ceramic beads with hierarchical porosity. Ceramics International, 2017, 43, 17238-17242.	4.8	10
81	Synthesis and Characterization of B/NaF and Silicon Phthalocyanine-Modified TiO2 and an Evaluation of Their Photocatalytic Removal of Carbamazepine. Separations, 2020, 7, 71.	2.4	10
82	Title is missing!. Reaction Kinetics and Catalysis Letters, 2001, 72, 43-48.	0.6	9
83	Evolution of bulk and surface structures in stoichiometric LaAlO3 mixed oxide prepared by using starch as template. Materials Chemistry and Physics, 2018, 207, 423-434.	4.0	9
84	Novel Mn-based Mesoporous Mixed Oxidic Solids. Studies in Surface Science and Catalysis, 2000, , 593-602.	1.5	8
85	Formation of hierarchically ordered silicas prepared by spray drying of nanosized spheres. Studies in Surface Science and Catalysis, 2002, , 339-346.	1.5	8
86	Compositional effect of Cr contamination susceptibility of La_{9.83}Si_{6â^'xâ^'y}Al_xFe_yO_{26Â±Î´} apatite-type SOFC electrolytes in contact with CROFER 22 APU. RSC Advances, 2016, 6, 49429-49435.	3.6	8
87	Evaluating a prototype compact thermal energy storage tank using paraffin-based phase change material for domestic hot water production. E3S Web of Conferences, 2019, 116, 00016.	0.5	8
88	Support-induced modifications on the CO2 hydrogenation performance of Ni/CeO2: The effect of ZnO doping on CeO2 nanorods. Journal of CO2 Utilization, 2022, 61, 102057.	6.8	8
89	A new microfluidic pressure-controlled Field Effect Transistor (pFET) in digital fluidic switch operation mode. Microelectronic Engineering, 2018, 190, 28-32.	2.4	7
90	Performance assessment of a four-air cathode membraneless microbial fuel cell stack for wastewater treatment and energy extraction. E3S Web of Conferences, 2019, 116, 00093.	0.5	7

#	Article	IF	Citations
91	Performance Evaluation of a Small-Scale Latent Heat Thermal Energy Storage Unit for Heating Applications Based on a Nanocomposite Organic PCM. ChemEngineering, 2019, 3, 88.	2.4	7
92	Comparative Study of Different Production Methods of Activated Carbon Cathodic Electrodes in Single Chamber MFC Treating Municipal Landfill Leachate. Applied Sciences (Switzerland), 2022, 12, 2991.	2.5	7
93	A comparative study of the physicochemical properties of Mg-rich and Ca-rich quicklimes and their effect on reactivity. Materials and Structures/Materiaux Et Constructions, 2015, 48, 3735-3753.	3.1	6
94	Computational investigation of actuation mechanisms of droplets on porous air-permeable substrates. Soft Matter, 2018, 14, 6090-6101.	2.7	5
95	Preparation and Characterization of Supported Molybdenum Doped TiO2 on Î±-Al2O3 Ceramic Substrate for the Photocatalytic Degradation of Ibuprofen (IBU) under UV Irradiation. Catalysts, 2022, 12, 562.	3.5	5
96	Device and materials for in vitro evaluation of forces developed to teeth and periodontal structures during dental practices. Journal of Dental Biomechanics, 2013, 4, 1758736013503648.	1.2	4
97	Estimation of thermal expansion coefficient of solid crystalline dielectrics at high temperatures. Journal of Contemporary Physics, 2015, 50, 79-83.	0.6	4
98	Shape Forming of Ceramic Tubes for Electrochemical Reactors by Gel-Casting Method. ECS Transactions, 2015, 68, 2339-2348.	0.5	4
99	Influence of natural water composition on reactivity of quicklime derived from Ca-rich and Mg-rich limestone: implications for sustainability of lime manufacturing through geochemical modeling. RSC Advances, 2016, 6, 65799-65807.	3.6	4
100	Estimation of thermal expansion and thermal conductivity coefficients of amorphous dielectrics at high temperatures. Journal of Contemporary Physics, 2016, 51, 61-64.	0.6	4
101	Specific structural features of LnZrOx (Ln: La, Sm) mixed oxides prepared by different methods. Progress in Natural Science: Materials International, 2018, 28, 437-446.	4.4	4
102	A New Method for Microporosity Detection Based on the Use of the Corrugated Pore Structure Model (CPSM).. Studies in Surface Science and Catalysis, 2002, , 27-34.	1.5	3
103	Synthesis, structure and surface properties of some mesoporous cero-phosphoro-aluminates. Physical Chemistry Chemical Physics, 2002, 4, 3894-3901.	2.8	3
104	Estimation of thermal conductivity coefficient for solid-state crystal dielectrics at high temperatures. Journal of Contemporary Physics, 2014, 49, 176-179.	0.6	3
105	Preparation and investigation of rare earth magnesium hexaaluminate solid solutions. Journal of Contemporary Physics, 2014, 49, 220-227.	0.6	3
106	Surface Chemistry and Catalysis. Catalysts, 2016, 6, 102.	3.5	3
107	Smart Coatings Against Corrosion. , 2021, , 400-400.		3
108	Review of Recent Progress in Wastewater Treatment Using Carbon Nanotubes. Current Analytical Chemistry, 2020, 17, 23-30.	1.2	3

#	Article	IF	Citations
109	Molybdenum Modified Solâ€“Gel Synthesized TiO2 for the Photocatalytic Degradation of Carbamazepine under UV Irradiation. Processes, 2022, 10, 1113.	2.8	3
110	uVALVIT: A tool for droplet mobility control and valving. MATEC Web of Conferences, 2016, 41, 04003.	0.2	2
111	Plug actuation and active manipulation in closed monolithic fluidics using backpressure. Microelectronic Engineering, 2019, 216, 111046.	2.4	2
112	Techniques for Coating Applications. , 2022, , 243-257.		2
113	CO2 Gasification Reactivity and Syngas Production of Greek Lignite Coal and Ex-Situ Produced Chars under Non-Isothermal and Isothermal Conditions: Structure-Performance Relationships. Energies, 2022, 15, 679.	3.1	2
114	Thermochemical Energy Storage in Solar Power Plants. , 2021, , .		1
115	Experimental process investigation of a latent heat energy storage system with a staggered heat exchanger with different phase change materials for solar thermal energy storage applications. E3S Web of Conferences, 2017, 22, 00179.	0.5	0
116	Rational Design of Non-Precious Metal Oxide Catalysts by Means of Advanced Synthetic and Promotional Routes. Catalysts, 2021, 11, 895.	3.5	0