

# Guylene Costentin

## List of Publications by Year in descending order

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85  
papers

2,931  
citations

147801

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175258

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88  
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88  
docs citations

88  
times ranked

3078  
citing authors

#	ARTICLE	IF	CITATIONS
1	On the Comprehensive Precipitation of Hydroxyapatites Unraveled by a Combined Kinetic–Thermodynamic Approach. <i>Inorganic Chemistry</i> , 2022, 61, 3296-3308.	4.0	7
2	Characterisation and reactivity of oxygen species at the surface of metal oxides. <i>Journal of Catalysis</i> , 2021, 393, 259-280.	6.2	70
3	Development of a thermodynamic approach to assist the control of the precipitation of hydroxyapatites and associated calcium phosphates in open systems. <i>CrystEngComm</i> , 2021, 23, 4857-4870.	2.6	7
4	The Concentration of Bone-Related Organic Additives Drives the Pathway of Apatite Formation. <i>Crystal Growth and Design</i> , 2021, 21, 3994-4004.	3.0	5
5	Synergistic Effect Between Ca <sub>4</sub> V <sub>4</sub> O <sub>14</sub> and Vanadium-Substituted Hydroxyapatite in the Oxidative Dehydrogenation of Propane. <i>ChemCatChem</i> , 2021, 13, 3995-4009.	3.7	3
6	Unraveling the Direct Decomposition of NO <sub>x</sub> over Keggin Heteropolyacids and Their Deactivation Using a Combination of Gas-IR/MS and In Situ DRIFT Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2020, 124, 22459-22470.	3.1	7
7	Insights into OCP identification and quantification in the context of apatite biomineralization. <i>CrystEngComm</i> , 2020, 22, 2728-2742.	2.6	20
8	Acidic Properties of Alkaline-Earth Phosphates Determined by an Experimental-Theoretical Approach. <i>Journal of Physical Chemistry C</i> , 2020, 124, 2013-2023.	3.1	3
9	Activation of C–H Bond of Propane by Strong Basic Sites Generated by Bulk Proton Conduction on V-Modified Hydroxyapatites for the Formation of Propene. <i>ChemCatChem</i> , 2020, 12, 2506-2521.	3.7	14
10	Comment on “Direct Decomposition of NO <sub>x</sub> over TiO <sub>2</sub> Supported Transition Metal Oxides at Low Temperatures”. <i>Industrial &amp; Engineering Chemistry Research</i> , 2020, 59, 4835-4837.	3.7	1
11	Controlled Formation of Native Defects in Ultrapure ZnO for the Assignment of Green Emissions to Oxygen Vacancies. <i>Journal of Physical Chemistry C</i> , 2020, 124, 12696-12704.	3.1	39
12	Defect-related multicolour emissions in ZnO smoke: from violet, over green to yellow. <i>Nanoscale</i> , 2019, 11, 5102-5115.	5.6	45
13	Importance of the Nature of the Active Acid/Base Pairs of Hydroxyapatite Involved in the Catalytic Transformation of Ethanol to n-Butanol Revealed by Operando DRIFTS. <i>ChemCatChem</i> , 2019, 11, 1765-1778.	3.7	31
14	Combined effect of magnesium and amino glutamic acid on the structure of hydroxyapatite prepared by hydrothermal method. <i>Materials Chemistry and Physics</i> , 2018, 212, 21-29.	4.0	15
15	Incorporation of vanadium into the framework of hydroxyapatites: importance of the vanadium content and pH conditions during the precipitation step. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 9630-9640.	2.8	21
16	Molecular Understanding of the Bulk Composition of Crystalline Nonstoichiometric Hydroxyapatites: Application to the Rationalization of Structure–Reactivity Relationships. <i>European Journal of Inorganic Chemistry</i> , 2016, 2016, 2709-2720.	2.0	19
17	Control of calcium accessibility over hydroxyapatite by post-precipitation steps: influence on the catalytic reactivity toward alcohols. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 27837-27847.	2.8	30
18	Discrimination of Surface and Bulk Structure of Crystalline Hydroxyapatite Nanoparticles by NMR. <i>Journal of Physical Chemistry C</i> , 2015, 119, 23008-23020.	3.1	55

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19	Exploring an alternative route for meixnerite synthesis. The impact of the gaseous environment on the reconstruction of the lamellar structure and the catalytic performances. <i>Applied Clay Science</i> , 2015, 104, 59-65.	5.2	6
20	The genesis of a heterogeneous catalyst: in situ observation of a transition metal complex adsorbing onto an oxide surface in solution. <i>Chemical Communications</i> , 2014, 50, 2409-2411.	4.1	4
21	How Surface Hydroxyls Enhance MgO Reactivity in Basic Catalysis: The Case of Methylbutynol Conversion. <i>ACS Catalysis</i> , 2014, 4, 4004-4014.	11.2	34
22	Insights into the influence of the Ag loading on Al <sub>2</sub> O <sub>3</sub> in the H <sub>2</sub> -assisted C <sub>3</sub> H <sub>6</sub> -SCR of NO. <i>Applied Catalysis B: Environmental</i> , 2014, 156-157, 192-201.	20.2	30
23	In-situ monitoring of transition metal complex adsorption on oxide surfaces during the first stages of supported metal catalyst preparation. <i>Catalysis Today</i> , 2014, 235, 245-249.	4.4	2
24	Identification of Surface Basic Sites and Acid-Base Pairs of Hydroxyapatite. <i>Journal of Physical Chemistry C</i> , 2014, 118, 12744-12757.	3.1	107
25	Influence of natural adsorbates of magnesium oxide on its reactivity in basic catalysis. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 19870.	2.8	15
26	Role of oxygen vacancies in the basicity of ZnO: From the model methylbutynol conversion to the ethanol transformation application. <i>Applied Catalysis A: General</i> , 2013, 453, 121-129.	4.3	49
27	Origins of the deactivation process in the conversion of methylbutynol on zinc oxide monitored by operando DRIFTS. <i>Catalysis Today</i> , 2013, 205, 67-75.	4.4	18
28	ZnO Oxygen Vacancies Formation and Filling Followed by in Situ Photoluminescence and in Situ EPR. <i>Journal of Physical Chemistry C</i> , 2012, 116, 21297-21307.	3.1	164
29	How to determine IR molar absorption coefficients of co-adsorbed species? Application to methanol adsorption for quantification of MgO basic sites. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 10797.	2.8	26
30	Identification and Distribution of Surface Ions in Low Coordination of CaO Powders with Photoluminescence Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2011, 115, 751-756.	3.1	3
31	Influence of Magnesium Substitution on the Basic Properties of Hydroxyapatites. <i>Journal of Physical Chemistry C</i> , 2011, 115, 24317-24327.	3.1	52
32	Microcalorimetric and thermodynamic studies of CO <sub>2</sub> and methanol adsorption on magnesium oxide. <i>Applied Surface Science</i> , 2011, 257, 6952-6962.	6.1	28
33	Basic reactivity of CaO: investigating active sites under operating conditions. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 14740.	2.8	27
34	Quantitative Investigation of MgO Brønsted Basicity: DFT, IR, and Calorimetry Study of Methanol Adsorption. <i>Journal of Physical Chemistry C</i> , 2010, 114, 3008-3016.	3.1	45
35	Mechanism and deactivation process of the conversion of methylbutynol on basic faujasite monitored by operando DRIFTS. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 937-946.	2.8	15
36	Identification of the OH groups responsible for kinetic basicity on MgO surfaces by <sup>1</sup> H MAS NMR. <i>Journal of Catalysis</i> , 2009, 268, 175-179.	6.2	36

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37	Insights into the Geometry, Stability and Vibrational Properties of OH Groups on $\hat{1}^3$ -Al <sub>2</sub> O <sub>3</sub> , TiO <sub>2</sub> -Anatase and MgO from DFT Calculations. <i>Topics in Catalysis</i> , 2009, 52, 1005-1016.	2.8	34
38	An EPR study of physi- and chemisorption of NO on MgO: Effect of outgassing temperature and nature of surface sites. <i>Applied Catalysis B: Environmental</i> , 2008, 84, 58-64.	20.2	9
39	The activity of Mg/Al reconstructed hydrotalcites by "memory effect" in the cyanoethylation reaction. <i>Catalysis Communications</i> , 2008, 9, 1974-1978.	3.3	50
40	Assignment of Photoluminescence Spectra of MgO Powders: TD-DFT Cluster Calculations Combined to Experiments. Part I: Structure Effects on Dehydroxylated Surfaces. <i>Journal of Physical Chemistry C</i> , 2008, 112, 16629-16637.	3.1	40
41	Assignment of Photoluminescence Spectra of MgO Powders: TD-DFT Cluster Calculations Combined to Experiments. Part II. Hydroxylation Effects. <i>Journal of Physical Chemistry C</i> , 2008, 112, 19710-19717.	3.1	25
42	Probing the strength, concentration and environment of basic sites in zeolites by IR spectroscopy. <i>Studies in Surface Science and Catalysis</i> , 2008, 174, 861-864.	1.5	2
43	Infrared Characterization of Hydroxyl Groups on MgO: A Periodic and Cluster Density Functional Theory Study. <i>Journal of the American Chemical Society</i> , 2007, 129, 6442-6452.	13.7	125
44	Study of the Structure of OH Groups on MgO by 1D and 2D <sup>1</sup> H MAS NMR Combined with DFT Cluster Calculations. <i>Journal of Physical Chemistry C</i> , 2007, 111, 18279-18287.	3.1	38
45	Revisiting Acido-basicity of the MgO Surface by Periodic Density Functional Theory Calculations: A Role of Surface Topology and Ion Coordination on Water Dissociation. <i>Journal of Physical Chemistry B</i> , 2006, 110, 15878-15886.	2.6	125
46	Role of Hydroxyl Groups in the Basic Reactivity of MgO: a Theoretical and Experimental Study. <i>Oil and Gas Science and Technology</i> , 2006, 61, 479-488.	1.4	31
47	Solid base catalysts obtained from hydrotalcite precursors, for Knoevenagel synthesis of cinamic acid and coumarin derivatives. <i>Applied Catalysis A: General</i> , 2006, 308, 13-18.	4.3	45
48	Thermodynamic Brønsted basicity of clean MgO surfaces determined by their deprotonation ability: Role of Mg <sup>2+</sup> -O <sup>2-</sup> pairs. <i>Catalysis Today</i> , 2006, 116, 196-205.	4.4	54
49	<sup>1</sup> H MAS NMR study of the coordination of hydroxyl groups generated upon adsorption of H <sub>2</sub> O and CD <sub>3</sub> OH on clean MgO surfaces. <i>Applied Catalysis A: General</i> , 2006, 307, 239-244.	4.3	16
50	Kinetic Model of Energy Transfer Processes Between Low-Coordinated Ions on MgO by Photoluminescence Decay Measurements. <i>ChemPhysChem</i> , 2006, 7, 904-911.	2.1	16
51	Rare-earth elements modified hydrotalcites and corresponding mesoporous mixed oxides as basic solid catalysts. <i>Applied Catalysis A: General</i> , 2005, 288, 185-193.	4.3	106
52	A spectroscopy and catalysis study of the nature of active sites of MgO catalysts: Thermodynamic Brønsted basicity versus reactivity of basic sites. <i>Journal of Catalysis</i> , 2005, 235, 413-422.	6.2	127
53	Evidence for emission and transfer of energy from excited edge sites of MgO smokes by photoluminescence experiments. <i>Surface Science</i> , 2005, 595, 172-182.	1.9	48
54	Physicochemical and in Situ Photoluminescence Study of the Reversible Transformation of Oxide Ions of Low Coordination into Hydroxyl Groups upon Interaction of Water and Methanol with MgO. <i>Journal of Physical Chemistry B</i> , 2005, 109, 2404-2413.	2.6	92

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55	Discrimination of MgO Ions by Means of an Improved In Situ Photoluminescence Cell and of Propyne as Probe Molecule. <i>Catalysis Letters</i> , 2004, 92, 101-105.	2.6	21
56	Ethylene selective dimerization on polymer complex catalyst of Ni(4,4'-bipyridine)Cl <sub>2</sub> coactivated with AlCl(C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub> . <i>Journal of Molecular Catalysis A</i> , 2004, 219, 13-19.	4.8	11
57	Cyanoethylation of ethanol on Mg-Al hydrotalcites promoted by Y <sup>3+</sup> and La <sup>3+</sup> . <i>Catalysis Communications</i> , 2004, 5, 647-651.	3.3	55
58	Mo Oxidation State of Cd, Fe, and Ag Catalysts Under Propane Mild Oxidation Reaction Conditions. <i>Journal of Catalysis</i> , 2001, 200, 360-369.	6.2	3
59	A correlation between crystal structure and catalytic activity in the solid solutions CdMoxW <sub>1-x</sub> O <sub>4</sub> . <i>Catalysis Today</i> , 2000, 61, 231-236.	4.4	14
60	Study of H <sub>2</sub> S selective oxidation on new model catalysts. <i>Catalysis Today</i> , 2000, 61, 149-155.	4.4	19
61	Reduction of sulfate species by H <sub>2</sub> S on different metal oxides and promoted aluminas. <i>Applied Catalysis B: Environmental</i> , 2000, 26, 71-80.	20.2	26
62	Evidence of the reverse Claus reaction on metal oxides. <i>Applied Catalysis B: Environmental</i> , 2000, 27, 137-142.	20.2	12
63	Selective Oxidation of H <sub>2</sub> S over CuO/Al <sub>2</sub> O <sub>3</sub> : Identification and Role of the Sulfurated Species formed on the Catalyst during the Reaction. <i>Journal of Catalysis</i> , 2000, 189, 63-69.	6.2	44
64	New Catalysts Active for the Mild Oxidation of Hydrogen Sulfide to Sulfur. <i>Journal of Catalysis</i> , 1999, 187, 385-391.	6.2	8
65	Comparative study of CS <sub>2</sub> hydrolysis catalyzed by alumina and titania. <i>Applied Catalysis B: Environmental</i> , 1998, 17, 167-173.	20.2	52
66	Structural Effects on Propane Mild Oxidation from Comparative Performances of Molybdenum and Vanadium Phosphate Model Catalysts. <i>Chemistry of Materials</i> , 1998, 10, 59-64.	6.7	15
67	Characterization of AgMo <sub>3</sub> P <sub>2</sub> O <sub>14</sub> Catalyst Active in Propane Mild Oxidation. <i>Journal of Catalysis</i> , 1997, 169, 287-300.	6.2	14
68	Modifications of the AgMo <sub>3</sub> P <sub>2</sub> O <sub>14</sub> Catalyst in the Oxidation of Propane. <i>European Physical Journal Special Topics</i> , 1997, 7, C2-893-C2-894.	0.2	0
69	Structure-sensitivity study of partial propene oxidation over AV <sub>2</sub> P <sub>2</sub> O <sub>10</sub> vanadium phosphate compounds. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1996, 92, 1423.	1.7	6
70	Role of the nature of the acid sites in the oxydehydrogenation of propane on a VPO/TiO <sub>2</sub> catalyst. An in situ FT-IR spectroscopy investigation. <i>Catalysis Letters</i> , 1996, 38, 197-201.	2.6	15
71	On the partial oxidation of propane and propylene on mixed metal oxide catalysts. <i>Applied Catalysis A: General</i> , 1996, 145, 1-48.	4.3	358
72	Propane oxydehydrogenation reaction on a VPO/TiO <sub>2</sub> catalyst. Role of the nature of acid sites determined by dynamic in-situ IR studies. <i>Catalysis Today</i> , 1996, 32, 57-61.	4.4	38

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73	Effects of the structural and cationic properties of AV <sub>2</sub> P <sub>2</sub> O <sub>10</sub> solids on propane selective oxidation. <i>Catalysis Today</i> , 1996, 32, 305-309.	4.4	6
74	EPR studies on molybdenum phosphates Mo <sub>2</sub> P <sub>4</sub> O <sub>15</sub> , NaMo <sub>3</sub> P <sub>3</sub> O <sub>16</sub> and BaMo <sub>2</sub> P <sub>4</sub> O <sub>16</sub> in the temperature range 300–420 K. <i>Bulletin of Materials Science</i> , 1995, 18, 125-131.	1.7	2
75	Molybdenum (V) Phosphates: Structural Relationships and Classification. <i>Reviews in Inorganic Chemistry</i> , 1993, 13, 77-102.	4.1	51
76	Determination of the crystal structure of Mo <sub>2</sub> V <sub>2</sub> P <sub>4</sub> O <sub>15</sub> . <i>Zeitschrift für Kristallographie</i> , 1992, 201, 53-58.	1.1	16
77	A niobium phosphate with a tunnel structure: Ca <sub>0.5+x</sub> Cs <sub>2</sub> Nb <sub>6</sub> P <sub>3</sub> O <sub>24</sub> . <i>Journal of Solid State Chemistry</i> , 1991, 90, 279-284.	2.9	7
78	BaNb <sub>7</sub> P <sub>6</sub> O <sub>33</sub> : A niobium monophosphate with a tunnel structure related to HTBs and ITBs. <i>Journal of Solid State Chemistry</i> , 1991, 93, 46-52.	2.9	8
79	A molybdenophosphate with a mixed valence of molybdenum, Mo(VI)–Mo(V): NaMo <sub>3</sub> P <sub>3</sub> O <sub>16</sub> . <i>Journal of Solid State Chemistry</i> , 1991, 95, 168-175.	2.9	13
80	A large family of niobium phosphates with the Ca <sub>0.5</sub> Cs <sub>2</sub> Nb <sub>6</sub> P <sub>3</sub> O <sub>24</sub> structure. <i>Materials Research Bulletin</i> , 1991, 26, 301-307.	5.2	6
81	Phosphate niobium bronzes and bronzoids with the MPTBp structure: Na <sub>4</sub> Nb <sub>8</sub> P <sub>4</sub> O <sub>32</sub> and Na <sub>4</sub> <sup>x</sup> A <sub>x</sub> Nb <sub>7</sub> MP <sub>4</sub> O <sub>32</sub> fourth members of the series A <sub>x</sub> (PO <sub>2</sub> ) <sub>4</sub> (NbO <sub>3</sub> ) <sub>2m</sub> . <i>Materials Research Bulletin</i> , 1991, 26, 1051-1057.	5.2	24
82	Structure of $\beta$ -TiMo <sub>2</sub> P <sub>3</sub> O <sub>13</sub> . <i>Acta Crystallographica Section C: Crystal Structure Communications</i> , 1991, 47, 1136-1138.	0.4	2
83	A new series of bronzes and bronzoids with KNb <sub>3</sub> P <sub>3</sub> O <sub>15</sub> structure. <i>Materials Research Bulletin</i> , 1990, 25, 1155-1160.	5.2	3
84	$\beta$ -NaMo <sub>2</sub> P <sub>3</sub> O <sub>13</sub> , a second form of pentavalent molybdenum sodium phosphate. <i>Journal of Solid State Chemistry</i> , 1990, 89, 31-38.	2.9	12
85	A molybdenum V diphosphate, BaMo <sub>2</sub> P <sub>4</sub> O <sub>16</sub> . <i>Journal of Solid State Chemistry</i> , 1990, 89, 83-87.	2.9	33