Julio R Sambrano

List of Publications by Year in descending order

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140 papers 3,813 citations

32 h-index 54 g-index

141 all docs

141 docs citations

times ranked

141

4089 citing authors

#	Article	IF	CITATIONS
1	Structural and optical properties of CaTiO3 perovskite-based materials obtained by microwave-assisted hydrothermal synthesis: An experimental and theoretical insight. Acta Materialia, 2009, 57, 5174-5185.	7.9	194
2	Electronic structure and optical properties of BaMoO4 powders. Current Applied Physics, 2010, 10, 614-624.	2.4	150
3	Strong violet–blue light photoluminescence emission at room temperature in SrZrO3: Joint experimental and theoretical study. Acta Materialia, 2008, 56, 2191-2202.	7.9	132
4	Static simulation of bulk and selected surfaces of anatase TiO2. Surface Science, 2001, 490, 116-124.	1.9	115
5	Different Origins of Green-Light Photoluminescence Emission in Structurally Ordered and Disordered Powders of Calcium Molybdate. Journal of Physical Chemistry A, 2008, 112, 8920-8928.	2.5	112
6	Highly intense violet-blue light emission at room temperature in structurally disordered SrZrO3 powders. Applied Physics Letters, 2007, 90, 091906.	3.3	109
7	Synthesis of wurtzite ZnS nanoparticles using the microwave assisted solvothermal method. Journal of Alloys and Compounds, 2013, 556, 153-159.	5.5	105
8	Periodic study on the structural and electronic properties of bulk, oxidized and reduced SnO 2 (1 10) surfaces and the interaction with O 2. Surface Science, 2002, 511, 408-420.	1.9	100
9	Zinc blende versus wurtzite ZnS nanoparticles: control of the phase and optical properties by tetrabutylammonium hydroxide. Physical Chemistry Chemical Physics, 2014, 16, 20127-20137.	2.8	100
10	CeO ₂ Nanoparticle Morphologies and Their Corresponding Crystalline Planes for the Photocatalytic Degradation of Organic Pollutants. ACS Applied Nano Materials, 2019, 2, 6513-6526.	5.0	87
11	Experimental and theoretical correlation of very intense visible green photoluminescence in BaZrO3 powders. Journal of Applied Physics, 2008, 103, .	2.5	84
12	Electronic and Structural Properties of the (101i0) and (112i0) ZnO Surfaces. Journal of Physical Chemistry A, 2008, 112, 8958-8963.	2.5	83
13	Theoretical Study on the Molecular Mechanism for the Reaction of VO2+ with C2H4. Journal of Physical Chemistry A, 2003, 107, 3107-3120.	2.5	68
14	Density Functional Theory Study on the Structural and Electronic Properties of Low Index Rutile Surfaces for TiO ₂ /SnO ₂ /TiO ₂ /TiO ₂ /SnO ₂ Composite Systems. Journal of Physical Chemistry A, 2008, 112, 8943-8952.	2.5	65
15	Toward an Understanding of Intermediate- and Short-Range Defects in ZnO Single Crystals. A Combined Experimental and Theoretical Study. Journal of Physical Chemistry A, 2008, 112, 8970-8978.	2.5	64
16	Structural and electronic properties of PbTiO3 slabs: a DFT periodic study. Surface Science, 2004, 552, 149-159.	1.9	62
17	A theoretical study on cytosine tautomers in aqueous media by using continuum models. Chemical Physics Letters, 2000, 317, 437-443.	2.6	61
18	DFT Study of the Reaction between VO2+ and C2H6. Organometallics, 2004, 23, 730-739.	2.3	61

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19	Intense violet–blue photoluminescence in BaZrO3 powders: A theoretical and experimental investigation of structural order–disorder. Optics Communications, 2008, 281, 3715-3720.	2.1	52
20	A theoretical and experimental investigation of Eu-doped ZnO nanorods and its application on dye sensitized solar cells. Journal of Alloys and Compounds, 2018, 739, 939-947.	5 . 5	52
21	DFT Study on Ce-Doped Anatase TiO ₂ : Nature of Ce ³⁺ and Ti ³⁺ Centers Triggered by Oxygen Vacancy Formation. Journal of Physical Chemistry C, 2014, 118, 9677-9689.	3.1	51
22	Electronic and structural properties of the (001) SrZrO3 surface. Computational and Theoretical Chemistry, 2007, 813, 49-56.	1.5	50
23	Role of Surfaces in the Magnetic and Ozone Gas-Sensing Properties of ZnFe ₂ O ₄ Nanoparticles: Theoretical and Experimental Insights. ACS Applied Materials & Description (2007). According to the Materials (2007).	8.0	49
24	Theoretical analysis of the structural deformation in Mn-doped BaTiO3. Chemical Physics Letters, 2005, 402, 491-496.	2.6	47
25	A <scp>DFT</scp> Study of Structural and Electronic Properties of <scp><scp>ZnS</scp> </scp> Polymorphs and its Pressureâ€Induced Phase Transitions. Journal of the American Ceramic Society, 2014, 97, 4011-4018.	3.8	43
26	A theoretical analysis of the TiO2/Sn doped (110) surface properties. Surface Science, 2005, 580, 71-79.	1.9	42
27	Strutural and optical approach of CdS@ZnS core–shell system. Chemical Physics Letters, 2012, 536, 96-99.	2.6	37
28	Theoretical study of the structure and stability of NbxOy and NbxOy+ (x=1â€"3; y=2â€"5,â€^7,â€^8) clusters. Chemical Physics Letters, 1998, 287, 620-626.	2.6	36
29	α-Ag _{2–2<i>x</i>} Zn _{<i>x</i>} WO ₄ (0 ≤i>x ≤0.25) Solid Solutions: Structure, Morphology, and Optical Properties. Inorganic Chemistry, 2017, 56, 7360-7372.	4.0	36
30	TiO2 synthesized by microwave assisted solvothermal method: Experimental and theoretical evaluation. Journal of Solid State Chemistry, 2014, 210, 171-177.	2.9	34
31	Modeling the atomic-scale structure, stability, and morphological transformations in the tetragonal phase of LaVO4. Chemical Physics Letters, 2016, 660, 87-92.	2.6	34
32	Adsorption of NH ₃ with Different Coverages on Single-Walled ZnO Nanotube: DFT and QTAIM Study. Journal of Physical Chemistry C, 2017, 121, 8109-8119.	3.1	34
33	Density functional study of the 5-methylcytosine tautomers. Chemical Physics, 2001, 264, 333-340.	1.9	33
34	Structural, electronic and mechanical properties of single-walled AlN and GaN nanotubes via DFT/B3LYP. Theoretical Chemistry Accounts, 2019, 138, 1.	1.4	33
35	Hydrothermal synthesis, structural characterization and photocatalytic properties of <mml:math altimg="si1.gif" overflow="scroll" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>^2</mml:mi></mml:math> -Ag2MoO4 microcrystals: Correlation between experimental and theoretical data. Arabian lournal of Chemistry, 2020, 13, 2806-2825.	4.9	33
36	Correlation between structural and electronic order–disorder effects and optical properties in ZnO nanocrystals. Journal of Materials Chemistry C, 2014, 2, 10164-10174.	5 . 5	31

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37	Theoretical methods for calculations of optical phonons in BiOBr: Analysis and correction of propagated errors. Journal of Raman Spectroscopy, 2018, 49, 1356-1363.	2.5	31
38	DFT Study with Inclusion of the Grimme Potential on Anatase TiO ₂ : Structure, Electronic, and Vibrational Analyses. Journal of Physical Chemistry A, 2012, 116, 11731-11735.	2.5	30
39	Optical and gas-sensing properties, and electronic structure of the mixed-phase CaCu 3 Ti 4 O 12 /CaTiO 3 composites. Materials Research Bulletin, 2017, 93, 47-55.	5.2	30
40	Mechanistic Insights into the Reaction between VO2+ and Propene Based on a DFT Study. Organometallics, 2006, 25, 1643-1653.	2.3	28
41	In silico infrared and Raman spectroscopy under pressure: The case of CaSnO3 perovskite. Journal of Chemical Physics, 2015, 142, 014505.	3.0	28
42	Antimicrobial activity of TiO2:Ag nanocrystalline heterostructures: Experimental and theoretical insights. Chemical Physics, 2015, 459, 87-95.	1.9	28
43	Structural, Electronic, Vibrational, and Topological Analysis of Single-Walled Zinc Oxide Nanotubes. Journal of Physical Chemistry C, 2016, 120, 6814-6823.	3.1	28
44	Joint Experimental and Theoretical Analysis of Orderâ^'Disorder Effects in Cubic BaZrO ₃ Assembled Nanoparticles under Decaoctahedral Shape. Journal of Physical Chemistry A, 2011, 115, 4482-4490.	2.5	27
45	Theoretical study of porous surfaces derived from graphene and boron nitride. Journal of Solid State Chemistry, 2018, 258, 247-255.	2.9	27
46	A Theoretical Study on the Gas Phase Reactions of the Anions NbO3-, NbO5-, and NbO2(OH)2- with H2O and O2. Journal of Physical Chemistry A, 2004, 108, 10850-10860.	2.5	26
47	Experimental and theoretical studies on the enhanced photoluminescence activity of zinc sulfide with a capping agent. Journal of Applied Physics, 2011, 110, 123507.	2.5	26
48	DFT study of the water-assisted tautomerization process between hydrated oxide, MO(H2O)+, and dihydroxide, M(OH)2+, cations (M=V, Nb and Ta). Chemical Physics Letters, 2004, 384, 56-62.	2.6	25
49	Photocatalytic activity of semiconductor sulfide heterostructures. Dalton Transactions, 2013, 42, 11111.	3.3	25
50	Oxidative dehydrogenation of ethylbenzene to styrene over the CoFe2O4–MCM-41 catalyst: preferential adsorption on the O2â^'Fe3+O2â^' sites located at octahedral positions. Catalysis Science and Technology, 2019, 9, 2469-2484.	4.1	25
51	Cation-exchange mediated synthesis of hydrogen and sodium titanates heterojunction: Theoretical and experimental insights toward photocatalyic mechanism. Applied Surface Science, 2021, 538, 148137.	6.1	25
52	Influence of solvent on the morphology and photocatalytic properties of ZnS decorated CeO2 nanoparticles. Journal of Applied Physics, 2014, 115, .	2.5	24
53	Theoretical Study of the Stoichiometric and Reduced Ce-Doped TiO2Anatase (001) Surfaces. Journal of Physical Chemistry C, 2015, 119, 4805-4816.	3.1	24
54	Decay of photo-induced conductivity in Sb-doped SnO2 thin films, using monochromatic light of about bandgap energy. Applied Surface Science, 2013, 267, 164-168.	6.1	23

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55	Preparation of TiO ₂ /SnO ₂ Thin Films by Sol–Gel Method and Periodic B3LYP Simulations. Journal of Physical Chemistry A, 2014, 118, 5857-5865.	2.5	23
56	Periodic density functional theory study of structural and electronic properties of single-walled zinc oxide and carbon nanotubes. Journal of Solid State Chemistry, 2016, 237, 36-47.	2.9	23
57	Thermal properties of the orthorhombic CaSnO3 perovskite under pressure from ab initio quasi-harmonic calculations. Theoretical Chemistry Accounts, 2016, 135, 1.	1.4	22
58	Quantitative evaluation of the surface stability and morphological changes of Cu2O particles. Heliyon, 2019, 5, e02500.	3.2	22
59	Influence of Synthesis Time on the Morphology and Properties of CeO ₂ Nanoparticles: An Experimental–Theoretical Study. Crystal Growth and Design, 2020, 20, 5031-5042.	3.0	22
60	Theoretical analysis of the energy levels induced by oxygen vacancies and the doping process (Co, Cu) Tj ETQq0	0 Q.rgBT /	/Overlock 10
61	Probing the Site-Selective Doping in SrSnO ₃ :Eu Oxides and Its Impact on the Crystal and Electronic Structures Using Synchrotron Radiation and DFT Simulations. Inorganic Chemistry, 2020, 59, 7666-7680.	4.0	21
62	Band Gap Narrowing of Bi-Doped NaTaO ₃ for Photocatalytic Hydrogen Evolution under Simulated Sunlight: A Pseudocubic Phase Induced by Doping. ACS Applied Energy Materials, 2021, 4, 671-679.	5.1	21
63	Hydrostatic and [001] Uniaxial Pressure on Anatase TiO ₂ by Periodic B3LYP-D* Calculations. Journal of Physical Chemistry C, 2013, 117, 7050-7061.	3.1	20
64	Computational Simulations of Morphological Transformations by Surface Structures: The Case of Rutile TiO2 phase. Materials Research, 2017, 20, 920-925.	1.3	20
65	Spin-phonon coupling in uniaxial anisotropic spin-glass based on Fe2TiO5 pseudobrookite. Journal of Alloys and Compounds, 2019, 799, 563-572.	5.5	20
66	Evaluation of bulk and surfaces absorption edge energy of sol-gel-dip-coating SnO2 thin films. Materials Research, 2010, 13, 437-443.	1.3	19
67	A DFT rationalization of the room temperature photoluminescence of Li2TiSiO5. Chemical Physics Letters, 2004, 398, 330-335.	2.6	18
68	Structural, electronic and optical properties of Fe(III) complex with pyridine-2,6-dicarboxylic acid: A combined experimental and theoretical study. Inorganica Chimica Acta, 2014, 416, 200-206.	2.4	17
69	Europium doped zinc sulfide: a correlation between experimental and theoretical calculations. Journal of Molecular Modeling, 2014, 20, 2375.	1.8	17
70	Porous silicene and silicon graphenylene-like surfaces: a DFT study. Theoretical Chemistry Accounts, 2018, 137, 1.	1.4	17
71	Computational procedure to an accurate DFT simulation to solid state systems. Computational Materials Science, 2019, 170, 109176.	3.0	17
72	An ab initio study of oxygen vacancies and doping process of Nb and Cr atoms on TiO2 (110) surface models. International Journal of Quantum Chemistry, 1997, 65, 625-631.	2.0	16

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73	A theoretical analysis on electronic structure of the (110) surface of TiO2–SnO2 mixed oxide. Computational and Theoretical Chemistry, 2003, 629, 307-314.	1.5	16
74	Pb1â^'xCaxTiO3solid solution (x=0.0, 0.25, 0.50, and 0.75): A theoretical and experimental approach. Physical Review B, 2007, 75, .	3.2	16
75	Theoretical Study on the Reaction Mechanism of VO ₂ ⁺ with Propyne in Gas Phase. Journal of Physical Chemistry A, 2008, 112, 1808-1816.	2.5	16
76	Piezoelectric, elastic, Infrared and Raman behavior of ZnO wurtzite under pressure from periodic DFT calculations. Chemical Physics, 2017, 485-486, 98-107.	1.9	16
77	A theoretical analysis on the intramolecular proton transfer of \hat{l}_{\pm} -alanine in an aqueous medium. Chemical Physics Letters, 1998, 294, 1-8.	2.6	15
78	Experimental and theoretical approach of nanocrystalline TiO2 with antifungal activity. Chemical Physics Letters, 2013, 577, 114-120.	2.6	14
79	New two-dimensional zinc oxide nanosheets: Properties, stability, and interconversion. Materials Letters, 2020, 275, 128067.	2.6	14
80	Theoretical study of MgO(001) surfaces: Pure, doped with Fe, Ca, and Al, and with and without adsorbed water. International Journal of Quantum Chemistry, 2001, 84, 705-713.	2.0	13
81	First-principles calculations and Raman scattering evidence for local symmetry lowering in rhombohedral ilmenite: temperature- and pressure-dependent studies. Journal of Physics Condensed Matter, 2018, 30, 485401.	1.8	13
82	Computational simulations of ZnO@GaN and GaN@ZnO core@shell nanotubes. Journal of Solid State Chemistry, 2018, 266, 217-225.	2.9	13
83	DFT study of \hat{l} ±-alanine as a function of the medium polarity. Computational and Theoretical Chemistry, 2001, 544, 151-157.	1.5	12
84	Laser/Electron Irradiation on Indium Phosphide (InP) Semiconductor: Promising Pathways to In Situ Formation of Indium Nanoparticles. Particle and Particle Systems Characterization, 2018, 35, 1800237.	2.3	12
85	Experimental and theoretical interpretation of the order/disorder clusters in CeO2:La. Applied Surface Science, 2020, 510, 145216.	6.1	12
86	A new multifunctional two-dimensional monolayer based on silicon carbide. FlatChem, 2021, 30, 100286.	5.6	12
87	Propriedades eletrônicas, estruturais e constantes elásticas do ZnO. Quimica Nova, 2010, 33, 810-815.	0.3	11
88	Controlling the Electronic, Structural, and Optical Properties of Novel MgTiO ₃ /LaNiO ₃ Nanostructured Films for Enhanced Optoelectronic Devices. ACS Applied Nano Materials, 2019, 2, 2612-2620.	5.0	11
89	Experimental and Theoretical Insights into the Structural Disorder and Gas Sensing Properties of ZnO. ACS Applied Electronic Materials, 2021, 3, 1447-1457.	4.3	11
90	Pure and Ni2O3-decorated CeO2 nanoparticles applied as CO gas sensor: Experimental and theoretical insights. Ceramics International, 2022, 48, 14014-14025.	4.8	11

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91	Theoretical analysis on TiO2(110)/V surface. International Journal of Quantum Chemistry, 2001, 85, 44-51.	2.0	10
92	Towards an insight on photodamage in hair fibre by <scp>UV</scp> â€light: An experimental and theoretical study. International Journal of Cosmetic Science, 2013, 35, 539-545.	2.6	10
93	Choice of hybrid functional and basis set optimization to calculate the structural, electronic, mechanical, and vibrational properties of BaSnO3. Theoretical Chemistry Accounts, 2016, 135, 1.	1.4	10
94	4-Component correlated all-electron study on Eka-actinium Fluoride (E121F) including Gaunt interaction: Accurate analytical form, bonding and influence on rovibrational spectra. Chemical Physics Letters, 2016, 662, 169-175.	2.6	10
95	Piezoelectric Response of Porous Nanotubes Derived from Hexagonal Boron Nitride under Strain Influence. ACS Omega, 2018, 3, 13413-13421.	3.5	10
96	A quantum-mechanical investigation of oxygen vacancies and copper doping in the orthorhombic CaSnO ₃ perovskite. Physical Chemistry Chemical Physics, 2018, 20, 20970-20980.	2.8	10
97	Surface and electronic properties of rutile TiO2 thin films coated with PbO2. Computational Materials Science, 2020, 171, 109222.	3.0	9
98	Morphological Transformation Network of Nanoparticles via DFT Simulations. Crystal Growth and Design, 2020, 20, 4600-4611.	3.0	9
99	Charge transfer in Pr-Doped cerium oxide: Experimental and theoretical investigations. Materials Chemistry and Physics, 2020, 249, 122967.	4.0	9
100	A promising carbon-based nanosheet as a suitable Na-anode material. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2021, 268, 115121.	3.5	9
101	Ab Initio correlated all electron Dirac-Fock calculations for eka-francium fluoride (E119F). Journal of the Brazilian Chemical Society, 2012, 23, 1104-1113.	0.6	9
102	NH3+N2O3 reaction. High level calculations. Computational and Theoretical Chemistry, 2006, 759, 189-194.	1.5	8
103	All electron fully relativistic Dirac–Fock calculation for darmstadtium carbide using prolapse free basis set. Chemical Physics Letters, 2007, 440, 367-371.	2.6	8
104	Structure, optical properties, and photocatalytic activity of α-Ag2W0.75Mo0.25O4. Materials Research Bulletin, 2020, 132, 111011.	5.2	8
105	Unveiling the Structural Behavior under Pressure of Filled $M < sub > 0.5 < /sub > Co < sub > 4 < /sub > Sb < sub > 12 < /sub > (M = K, Sr, La, Ce, and Yb) Thermoelectric Skutterudites. Inorganic Chemistry, 2021, 60, 7413-7421.$	4.0	8
106	One- and two-dimensional structures based on gallium nitride. Journal of Solid State Chemistry, 2021, 303, 122513.	2.9	8
107	Enhanced Photocatalytic and Photoluminescence Properties Resulting from Type-I Band Alignment in the Zn2GeO4/g-C3N4 Nanocomposites. Catalysts, 2022, 12, 692.	3.5	8
108	DFT studies on PbO2 and binary PbO2/SnO2 thin films. Physica E: Low-Dimensional Systems and Nanostructures, 2022, 136, 115037.	2.7	7

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109	Ab initio study and NMR analysis of the complexion of citric acid with ion lithium. Computational and Theoretical Chemistry, 1999, 493, 309-318.	1.5	6
110	A joint theoretical and kinetic investigation on the fragmentation of (N-halo)-2-amino cycloalkanecarboxylates. Chemical Physics, 2002, 280, 1-14.	1.9	6
111	Análise teórica da interação de CO, CO2 e NH3 com ZnO. Quimica Nova, 2004, 27, 10-16.	0.3	6
112	Theoretical-experimental evaluation of the photocatalytic activity of KCa2Ta3â^'xNbxO10. Materials Letters, 2019, 253, 392-395.	2.6	6
113	Unveiling the infrared complex dielectric function of ilmenite CdTiO3. Journal of Alloys and Compounds, 2020, 813, 152136.	5 . 5	6
114	New 2D nanosheets based on the octa-graphene. Journal of Solid State Chemistry, 2020, 290, 121534.	2.9	6
115	Strain-induced novel properties of alloy nitride nanotubes. Computational Materials Science, 2020, 177, 109589.	3.0	6
116	Theoretical Study on Band Alignment Mechanism for the ZnO@ZnS Interface of Core-Shell Structures. Current Physical Chemistry, 2016, 5, 327-336.	0.2	6
117	Propriedades eletr $ ilde{A}$ nicas e estruturais do PbTiO3: teoria do funcional de densidade aplicada a modelos peri $ ilde{A}$ 3dicos. Química Nova, 2005, 28, 10-18.	0.3	5
118	DFT study on the water-assisted mechanism for the reaction between VO+ and NH3 to yield VNH+ and H2O. Chemical Physics Letters, 2006, 427, 265-270.	2.6	5
119	Conducting Behavior of Crystalline α-PbO2 as Revealed by DFT Calculations. Materials Research, 2018, 21, .	1.3	5
120	New insights into the nature of the bandgap of CuGeO3 nanofibers: Synthesis, electronic structure, and optical and photocatalytic properties. Materials Today Communications, 2021, 26, 101701.	1.9	4
121	Unconventional Disorder by Femtosecond Laser Irradiation in Fe ₂ O ₃ . ACS Omega, 2021, 6, 28049-28062.	3.5	4
122	Efeitos da adição de átomos de Mn na rede do GaN via métodos de estrutura eletrônica. Quimica Nova, 2010, 33, 834-840.	0.3	3
123	Thermodynamic and electronic study of Ga1â^'xMnxN films. A theoretical study. Surface Science, 2011, 605, 1431-1437.	1.9	3
124	AlGaN double-walled nanotubes as ammonia gas sensor. Journal of Solid State Chemistry, 2020, 292, 121729.	2.9	3
125	Ab Initio Modeling of MultiWall: A General Algorithm First Applied to Carbon Nanotubes. Journal of Physical Chemistry A, 2021, 125, 4003-4012.	2.5	3
126	Piezoelectricity induced by gaseous molecules adsorbed on ZnO nanotubes. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2022, 281, 115729.	3.5	3

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127	First-principles Simulation of Elastic Constants and Electronic Properties of GaN. Current Physical Chemistry, 2014, 4, 65-70.	0.2	2
128	Optical phonon modes in 1:2 ordered trigonal Ba 3 MgNb 2 O 9 perovskite: Synergy of both classical and quantum methods. Journal of Raman Spectroscopy, 2020, 51, 1219-1229.	2.5	2
129 130	Intra-octahedral distortion on lamellar potassium niobate K ₄ Nb ₆ O ₁₇ : a periodic DFT study of structural, electronic and vibralian properties. Physical Chemistry Chemical Physics, 2020, 22, 16567-16570. A promising properties of the	2.8	2