

Francisco J Carrion-Vilches

List of Publications by Year in descending order

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57
papers

2,939
citations

201674
27
h-index

161849
54
g-index

58
all docs

58
docs citations

58
times ranked

2235
citing authors

#	ARTICLE	IF	CITATIONS
1	Ionic Liquids as Advanced Lubricant Fluids. <i>Molecules</i> , 2009, 14, 2888-2908.	3.8	532
2	1-N-alkyl -3-methylimidazolium ionic liquids as neat lubricants and lubricant additives in steel–aluminium contacts. <i>Wear</i> , 2006, 260, 766-782.	3.1	310
3	Room temperature ionic liquids as lubricant additives in steel–aluminium contacts: Influence of sliding velocity, normal load and temperature. <i>Wear</i> , 2006, 261, 347-359.	3.1	222
4	Erosion–corrosion of stainless steels, titanium, tantalum and zirconium. <i>Wear</i> , 2005, 258, 693-700.	3.1	130
5	Ionic liquids as lubricants of polystyrene and polyamide 6-steel contacts. Preparation and properties of new polymer-ionic liquid dispersions. <i>Tribology Letters</i> , 2006, 21, 121-133.	2.6	118
6	Effect of the addition of room temperature ionic liquid and ZnO nanoparticles on the wear and scratch resistance of epoxy resin. <i>Wear</i> , 2010, 268, 1295-1302.	3.1	101
7	Friction and wear of aluminium–steel contacts lubricated with ordered fluids-neutral and ionic liquid crystals as oil additives. <i>Wear</i> , 2004, 256, 386-392.	3.1	90
8	Synergy between graphene and ionic liquid lubricant additives. <i>Tribology International</i> , 2017, 116, 371-382.	5.9	86
9	Liquid Crystals in Tribology. <i>International Journal of Molecular Sciences</i> , 2009, 10, 4102-4115.	4.1	76
10	Influence of ZnO nanoparticle filler on the properties and wear resistance of polycarbonate. <i>Wear</i> , 2007, 262, 1504-1510.	3.1	75
11	Dry and lubricated wear resistance of mechanically-alloyed aluminium-base sintered composites. <i>Wear</i> , 2001, 248, 178-186.	3.1	65
12	Single-walled carbon nanotubes modified by ionic liquid as antiwear additives of thermoplastics. <i>Composites Science and Technology</i> , 2010, 70, 2160-2167.	7.8	58
13	Physical and tribological properties of a new polycarbonate-organoclay nanocomposite. <i>European Polymer Journal</i> , 2008, 44, 968-977.	5.4	55
14	Synergy between single-walled carbon nanotubes and ionic liquid in epoxy resin nanocomposites. <i>Composites Part B: Engineering</i> , 2016, 105, 149-159.	12.0	49
15	Effect of ionic liquid on the structure and tribological properties of polycarbonate–zinc oxide nanodispersion. <i>Materials Letters</i> , 2007, 61, 4531-4535.	2.6	47
16	Influence of temperature on PA 6–steel contacts in the presence of an ionic liquid lubricant. <i>Wear</i> , 2007, 263, 658-662.	3.1	46
17	New Single-Walled Carbon Nanotubes–Ionic Liquid Lubricant. Application to Polycarbonate–Stainless Steel Sliding Contact. <i>Tribology Letters</i> , 2011, 41, 199-207.	2.6	46
18	Surface damage of mold steel and its influence on surface roughness of injection molded plastic parts. <i>Wear</i> , 2011, 271, 2512-2516.	3.1	44

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19	Tribological properties of liquid crystals as lubricant additives. <i>Wear</i> , 1997, 212, 188-194.	3.1	42
20	Scratch Resistance of Polycarbonate Containing ZnO Nanoparticles: Effects of Sliding Direction. <i>Journal of Nanoscience and Nanotechnology</i> , 2010, 10, 6683-6689.	0.9	41
21	Antiwear performance of ionic liquid+graphene dispersions with anomalous viscosity-temperature behavior. <i>Tribology International</i> , 2018, 122, 200-209.	5.9	41
22	Gold in organic synthesis Part 2. Preparation of benzyl-alkyl and-arylketones via C ¹ –C coupling. <i>Inorganica Chimica Acta</i> , 1994, 220, 1-3.	2.4	40
23	Self-healing of abrasion damage on epoxy resin controlled by ionic liquid. <i>RSC Advances</i> , 2016, 6, 37258-37264.	3.6	32
24	Synthesis of Mono ⁺ , Di ⁺ , and Tri ⁺ arylgold(III) Complexes Using Organomercury Compounds – Synthesis of the First Aurated Schiff Bases. <i>Chemische Berichte</i> , 1996, 129, 1301-1306.	0.2	30
25	Multi-walled Carbon Nanotube-Imidazolium Tosylate Ionic Liquid Lubricant. <i>Tribology Letters</i> , 2013, 50, 127-136.	2.6	30
26	Carbon nanophases in ordered nanofluid lubricants. <i>Wear</i> , 2017, 376-377, 747-755.	3.1	29
27	Rheological behavior of multiwalled carbon nanotube-imidazolium tosylate ionic liquid dispersions. <i>Journal of Rheology</i> , 2017, 61, 279-289.	2.6	28
28	Ionanocarbon Lubricants. The Combination of Ionic Liquids and Carbon Nanophases in Tribology. <i>Lubricants</i> , 2017, 5, 14.	2.9	28
29	The use of thermotropic liquid crystals in organometallic chemistry. Synthesis of new mercury, silver and gold complexes with 4,4'-disubstituted azob. <i>Journal of Organometallic Chemistry</i> , 1994, 480, 103-109.	1.8	26
30	Synthesis and Reactivity of Some Nitroaryl Complexes of Hg ^{II} and Au ^{III} – Synthesis of a Substituted Biphenyl by C ¹ –C Coupling – Crystal Structure of [Hg(C ₆ H ₄ NO ₂) ₂ ·O ₂ ·Bu ₃]. <i>Chemische Berichte</i> , 1996, 129, 1395-1399.	0.2	26
31	Synthesis of some 1/4-hydroxo-, phenoxo- and O,O-acetylacetonato-arylgold(III) complexes. Crystal structure of [Au(C ₆ H ₄ NO ₂) ₂ ·2(1/4-OH)] ₂ ·2Et ₂ O. <i>Journal of Organometallic Chemistry</i> , 1996, 508, 53-57.	1.8	26
32	Abrasive wear under multiscratching of polystyrene+single-walled carbon nanotube nanocomposites. Effect of sliding direction and modification by ionic liquid. <i>Applied Surface Science</i> , 2011, 257, 9073-9081.	6.1	25
33	Rheological study of new dispersions of carbon nanotubes in the ionic liquid 1-ethyl-3-methylimidazolium dicyanamide. <i>Journal of Molecular Liquids</i> , 2019, 278, 368-375.	4.9	25
34	Wear of thermoplastics determined by multiple scratching. <i>E-Polymers</i> , 2005, 5, .	3.0	24
35	Friction and multiple scratch behavior of polymer+monomer liquid crystal systems. <i>Polymer</i> , 2005, 46, 347-362.	3.8	23
36	Scratch resistance of a polycarbonate + organoclay nanohybrid. <i>EXPRESS Polymer Letters</i> , 2009, 3, 621-629.	2.1	23

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37	Ionic Nanofluids in Tribology. Lubricants, 2015, 3, 650-663.	2.9	22
38	Self-lubricating, wear resistant protic ionic liquid-epoxy resin. EXPRESS Polymer Letters, 2017, 11, 219-229.	2.1	22
39	Comparative study of the tribological properties of polyamide 6 filled with molybdenum disulfide and liquid crystalline additives. Journal of Applied Polymer Science, 2001, 81, 2426-2432.	2.6	19
40	Influence of milling conditions on the wear resistance of mechanically alloyed aluminium. Wear, 2005, 258, 906-914.	3.1	19
41	ZnO-ionic liquid nanostructures. Applied Surface Science, 2009, 255, 4859-4862.	6.1	16
42	Study of the abrasion resistance under scratching of polybutylenetereftalate-glass fiber composites. Tribology International, 2015, 92, 365-378.	5.9	16
43	Fatty Acid-Derived Ionic Liquid Lubricant. Protic Ionic Liquid Crystals as Protic Ionic Liquid Additives. Coatings, 2019, 9, 710.	2.6	16
44	Effect of temperature on the rheological behavior of a new aqueous liquid crystal bio-lubricant. Journal of Molecular Liquids, 2020, 301, 112406.	4.9	16
45	Tribological characterization of epoxy coatings modified with ionic liquids and graphene. Tribology International, 2020, 149, 105516.	5.9	15
46	Scratch Resistance of New Polystyrene Nanocomposites with Ionic Liquid-Modified Multi-walled Carbon Nanotubes. Tribology Letters, 2013, 52, 271-285.	2.6	14
47	Viscoelastic properties and long-term stability of polystyrene-carbon nanotube nanocomposites. Effect of the nature of the carbon nanotubes and modification by ionic liquid. Polymer Degradation and Stability, 2014, 103, 42-48.	5.8	12
48	Protic ammonium bio-based ionic liquid crystal lubricants. Tribology International, 2021, 158, 106917.	5.9	11
49	Supercritical carbon dioxide extraction of a liquid crystalline additive from polystyrene matrices. Journal of Supercritical Fluids, 2002, 23, 59-63.	3.2	7
50	Scratch velocity and wear resistance. E-Polymers, 2005, 5, .	3.0	7
51	A study of the wear behavior of polymer-matrix composites containing discontinuous nanocrystalline alloy reinforcements. Tribology International, 2007, 40, 479-489.	5.9	7
52	Static and kinetic friction force and surface roughness of different archwirebracket sliding contacts. Dental Materials Journal, 2015, 34, 648-653.	1.8	7
53	Dynamic Moduli of Polybutylene Terephthalate Glass Fiber Reinforced in High-Temperature Environments. Materials, 2021, 14, 483.	2.9	7
54	Flow Injection Analysis of Formaldehyde and Sulphite Using the Oxidation of p-Phenylenediamine by Hydrogen Peroxide. International Journal of Environmental Analytical Chemistry, 1993, 53, 195-203.	3.3	5

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55	Effect of Liquid Phase Impregnation Coatings on the Interfacial Bonding Strength of Carbon Fiberâ€Reinforced Aluminum. Advanced Engineering Materials, 2019, 21, 1801350.	3.5	5
56	Wear of aluminium-base materials processed by mechanical milling in air or ammonia. Wear, 2003, 255, 569-572.	3.1	4
57	Structural characterization of polymer-liquid crystal dispersions. Polymer International, 2002, 51, 1256-1260.	3.1	3