

Francisco J Carrion-Vilches

List of Publications by Year in descending order

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57
papers

2,939
citations

201575

27
h-index

161767

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.	1.7	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.	1.5	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.	1.5	222
4	Erosion-corrosion of stainless steels, titanium, tantalum and zirconium. <i>Wear</i> , 2005, 258, 693-700.	1.5	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.	1.2	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.	1.5	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.	1.5	90
8	Synergy between graphene and ionic liquid lubricant additives. <i>Tribology International</i> , 2017, 116, 371-382.	3.0	86
9	Liquid Crystals in Tribology. <i>International Journal of Molecular Sciences</i> , 2009, 10, 4102-4115.	1.8	76
10	Influence of ZnO nanoparticle filler on the properties and wear resistance of polycarbonate. <i>Wear</i> , 2007, 262, 1504-1510.	1.5	75
11	Dry and lubricated wear resistance of mechanically-alloyed aluminium-base sintered composites. <i>Wear</i> , 2001, 248, 178-186.	1.5	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.	3.8	58
13	Physical and tribological properties of a new polycarbonate-organoclay nanocomposite. <i>European Polymer Journal</i> , 2008, 44, 968-977.	2.6	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.	5.9	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.	1.3	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.	1.5	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.	1.2	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.	1.5	44

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19	Tribological properties of liquid crystals as lubricant additives. <i>Wear</i> , 1997, 212, 188-194.	1.5	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.	3.0	41
22	Gold in organic synthesis Part 2. Preparation of benzyl-alkyl and-arylketones via C–C coupling. <i>Inorganica Chimica Acta</i> , 1994, 220, 1-3.	1.2	40
23	Self-healing of abrasion damage on epoxy resin controlled by ionic liquid. <i>RSC Advances</i> , 2016, 6, 37258-37264.	1.7	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.	1.2	30
26	Carbon nanophases in ordered nanofluid lubricants. <i>Wear</i> , 2017, 376-377, 747-755.	1.5	29
27	Rheological behavior of multiwalled carbon nanotube-imidazolium tosylate ionic liquid dispersions. <i>Journal of Rheology</i> , 2017, 61, 279-289.	1.3	28
28	Ionanocarbon Lubricants. The Combination of Ionic Liquids and Carbon Nanophases in Tribology. <i>Lubricants</i> , 2017, 5, 14.	1.2	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.	0.8	26
30	Synthesis and Reactivity of Some Nitroaryl Complexes of Hg ^{II} and Au ^{III} – Synthesis of a Substituted Biphenyl by C–C Coupling – Crystal Structure of [Hg(C ₆ H ₄ NO ₂) ₂ ·O ₂ ·n <i>i>Bu</i>] ₂ . <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.	0.8	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.	3.1	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.	2.3	25
34	Wear of thermoplastics determined by multiple scratching. <i>E-Polymers</i> , 2005, 5, .	1.3	24
35	Friction and multiple scratch behavior of polymer+monomer liquid crystal systems. <i>Polymer</i> , 2005, 46, 347-362.	1.8	23
36	Scratch resistance of a polycarbonate + organoclay nanohybrid. <i>EXPRESS Polymer Letters</i> , 2009, 3, 621-629.	1.1	23

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37	Ionic Nanofluids in Tribology. <i>Lubricants</i> , 2015, 3, 650-663.	1.2	22
38	Self-lubricating, wear resistant protic ionic liquid-epoxy resin. <i>EXPRESS Polymer Letters</i> , 2017, 11, 219-229.	1.1	22
39	Comparative study of the tribological properties of polyamide 6 filled with molybdenum disulfide and liquid crystalline additives. <i>Journal of Applied Polymer Science</i> , 2001, 81, 2426-2432.	1.3	19
40	Influence of milling conditions on the wear resistance of mechanically alloyed aluminium. <i>Wear</i> , 2005, 258, 906-914.	1.5	19
41	ZnOâ€ionic liquid nanostructures. <i>Applied Surface Science</i> , 2009, 255, 4859-4862.	3.1	16
42	Study of the abrasion resistance under scratching of polybutylenetereftalateâ€glass fiber composites. <i>Tribology International</i> , 2015, 92, 365-378.	3.0	16
43	Fatty Acid-Derived Ionic Liquid Lubricant. Protic Ionic Liquid Crystals as Protic Ionic Liquid Additives. <i>Coatings</i> , 2019, 9, 710.	1.2	16
44	Effect of temperature on the rheological behavior of a new aqueous liquid crystal bio-lubricant. <i>Journal of Molecular Liquids</i> , 2020, 301, 112406.	2.3	16
45	Tribological characterization of epoxy coatings modified with ionic liquids and graphene. <i>Tribology International</i> , 2020, 149, 105516.	3.0	15
46	Scratch Resistance of New Polystyrene Nanocomposites with Ionic Liquid-Modified Multi-walled Carbon Nanotubes. <i>Tribology Letters</i> , 2013, 52, 271-285.	1.2	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. <i>Polymer Degradation and Stability</i> , 2014, 103, 42-48.	2.7	12
48	Protic ammonium bio-based ionic liquid crystal lubricants. <i>Tribology International</i> , 2021, 158, 106917.	3.0	11
49	Supercritical carbon dioxide extraction of a liquid crystalline additive from polystyrene matrices. <i>Journal of Supercritical Fluids</i> , 2002, 23, 59-63.	1.6	7
50	Scratch velocity and wear resistance. <i>E-Polymers</i> , 2005, 5, .	1.3	7
51	A study of the wear behavior of polymerâ€matrix composites containing discontinuous nanocrystalline alloy reinforcements. <i>Tribology International</i> , 2007, 40, 479-489.	3.0	7
52	Static and kinetic friction force and surface roughness of different archwirebracket sliding contacts. <i>Dental Materials Journal</i> , 2015, 34, 648-653.	0.8	7
53	Dynamic Moduli of Polybutylene Terephthalate Glass Fiber Reinforced in High-Temperature Environments. <i>Materials</i> , 2021, 14, 483.	1.3	7
54	Flow Injection Analysis of Formaldehyde and Sulphite Using the Oxidation of p-Phenylenediamine by Hydrogen Peroxide. <i>International Journal of Environmental Analytical Chemistry</i> , 1993, 53, 195-203.	1.8	5

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55	Effect of Liquid Phase Impregnation Coatings on the Interfacial Bonding Strength of Carbon Fiber-Reinforced Aluminum. <i>Advanced Engineering Materials</i> , 2019, 21, 1801350.	1.6	5
56	Wear of aluminium-base materials processed by mechanical milling in air or ammonia. <i>Wear</i> , 2003, 255, 569-572.	1.5	4
57	Structural characterization of polymer-liquid crystal dispersions. <i>Polymer International</i> , 2002, 51, 1256-1260.	1.6	3