Giovanni Straffelini

List of Publications by Year
in descending order

48 papers	1,462 citations	331259 21 h-index	329751 37 g-index
49 all docs	49 docs citations	49 times ranked	842 citing authors

#	Article	IF	Citations
1	Braking pad-disc system: Wear mechanisms and formation of wear fragments. Wear, 2015, 322-323, 251-258.	1.5	144
2	Role of the friction layer in the high-temperature pin-on-disc study of a brake material. Wear, 2016, 346-347, 56-65.	1.5	124
3	Present knowledge and perspectives on the role of copper in brake materials and related environmental issues: A critical assessment. Environmental Pollution, 2015, 207, 211-219.	3.7	95
4	Friction and Wear. Springer Tracts in Mechanical Engineering, 2015, , .	0.1	88
5	Effect of roughness on the wear behavior of HVOF coatings dry sliding against a friction material. Wear, 2016, 368-369, 326-334.	1.5	78
6	Dry sliding behavior and friction layer formation in copper-free barite containing friction materials. Wear, 2018, 398-399, 191-200.	1.5	71
7	A concept for reducing PM 10 emissions for car brakes by 50%. Wear, 2018, 396-397, 135-145.	1.5	68
8	Pin-on-disc investigation on copper-free friction materials dry sliding against cast iron. Tribology International, 2018, 119, 73-81.	3.0	57
9	Pin-on-disc study of a friction material dry sliding against HVOF coated discs at room temperature and 300ÂÂ°C. Tribology International, 2017, 115, 89-99.	3.0	50
10	Wear debris from brake system materials: A multi-analytical characterization approach. Tribology International, 2016, 94, 249-259.	3.0	48
11	Pin-on-disc study of brake friction materials with ball-milled nanostructured components. Materials and Design, 2017, 115, 287-298.	3.3	48
12	Wear behavior of a low metallic friction material dry sliding against a cast iron disc: Role of the heat-treatment of the disc. Wear, 2016, 348-349, 10-16.	1.5	44
13	Wear and Contact Temperature Evolution in Pin-on-Disc Tribotesting of Low-Metallic Friction Material Sliding Against Pearlitic Cast Iron. Tribology Letters, 2016, 62, 1.	1.2	41
14	A preliminary investigation on the use of the pin-on-disc test to simulate off-brake friction and wear characteristics of friction materials. Wear, 2018, 410-411, 202-209.	1.5	41
15	A simplified approach to the adhesive theory of friction. Wear, 2001, 249, 78-84.	1.5	40
16	Pin-on-Disc Testing of Low-Metallic Friction Material Sliding Against HVOF Coated Cast Iron: Modelling of the Contact Temperature Evolution. Tribology Letters, 2017, 65, 1.	1.2	38
17	Mild Sliding Wear of Feâ€“0.2%C, Tiâ€“6%Alâ€“4%V and Al-7072: A Comparative Study. Tribology Letters, 2011, 41, 227-238.	1.2	35
18	Experimental observations of subsurface damage and oxidative wear in Al-based metalâ€“matrix composites. Wear, 2000, 245, 216-222.	1.5	32

#	Article	IF	Citations
19	A pin-on-disc study on the dry sliding behavior of a Cu-free friction material containing different types of natural graphite. Wear, 2020, 442-443, 203157.	1.5	28
20	Effect of Steel Counterface on the Dry Sliding Behaviour of a Cu-Based Metal Matrix Composite. Tribology Letters, 2018, 66, 1.	1.2	27
21	A critical comparison of dynamometer data with pin-on-disc data for the same two friction material pairs â€“ A case study. Wear, 2019, 424-425, 40-47.	1.5	24
22	Sliding Behaviour of Friction Material Against Cermet Coatings: Pin-on-Disc Study of the Running-in Stage. Tribology Letters, 2018, 66, 1.	1.2	22
23	Effect of testing conditions on the dry sliding behavior of a Cu-Based refractory composite material. Tribology International, 2019, 140, 105850.	3.0	17
24	Wear Mechanisms. Springer Tracts in Mechanical Engineering, 2015, , 85-113.	0.1	16
25	Tribological and Emission Behavior of Novel Friction Materials. Atmosphere, 2020, 11, 1050.	1.0	16
26	Sliding Behavior and Particle Emissions of Cu-Free Friction Materials with Different Contents of Phenolic Resin. Tribology Transactions, 2020, 63, 770-779.	1.1	14
27	High-Temperature Tribo-Oxidative Wear of a Cu-Based Metal-Matrix Composite Dry Sliding Against Heat-Treated Steel. Tribology Letters, 2019, 67, 1.	1.2	13
28	Comparative Studies on the Dry Sliding Behavior of a Low-Metallic Friction Material with the Addition of Graphite and Exfoliated g-C3N4. Lubricants, 2022, 10, 27.	1.2	12
29	A systematic approach to design against wear for Powder Metallurgy (PM) steel parts: The case of dry rollingâ€“sliding wear. Materials & Design, 2011, 32, 2191-2198.	5.1	11
30	HVOF Cermet Coatings to Improve Sliding Wear Resistance in Engineering Systems. Coatings, 2020, 10, 886.	1.2	11
31	Airborne particulate matter from brake systems: An assessment of the relevant tribological formation mechanisms. Wear, 2021, 478-479, 203883.	1.5	10
32	Pin-on-disc study of dry sliding behavior of Co-free HVOF-coated disc tested against different friction materials. Friction, 2021, 9, 1242-1258.	3.4	9
33	Brake Performance Maps for a Cu-Free Friction Material with Different Scorching Conditions. Tribology Transactions, 2021, 64, 540-550.	1.1	9
34	Dry Sliding Behavior and Particulate Emissions of a SiC-graphite Composite Friction Material Paired with HVOF-Coated Counterface. Atmosphere, 2022, 13, 296.	1.0	9
35	The role of scorching treatment on the wear and emission behavior of friction materials with and without copper. Wear, 2020, 460-461, 203480.	1.5	8
36	Effect of velocity and temperature on the dry sliding behavior of a SiC-Graphite composite against WC-CoCr and WC-FeCrAlY HVOF coatings. Wear, 2021, 464-465, 203553.	1.5	8

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37	The Role of Graphitic Carbon Nitride in the Formulation of Copper-Free Friction Composites Designed for Automotive Brake Pads. Metals, 2022, 12, 123.	1.0	8
38	Effect of temperature and sliding speed on the dry sliding behavior of a SiC-graphite composite against martensitic steel. Wear, 2020, 450-451, 203242.	1.5	7
39	A new sample preparation protocol for SEM and TEM particulate matter analysis. Ultramicroscopy, 2021, 230, 113365.	0.8	6
40	Sliding behaviour of hard and self-lubricating PVD coatings against a Mg-alloy. Wear, 2007, 263, 1341-1346.	1.5	5
41	Dry sliding behavior of HVOF WC-CoCr coated counterface against Cu-Sn and SiC-graphite composite materials. Surface and Coatings Technology, 2020, 397, 125977.	2.2	5
42	The influence of the addition of aluminum anodizing waste on the friction and emission behavior of different kinds of friction material formulations. Tribology International, 2022, 173, 107676.	3.0	5
43	Dry sliding behaviour of composite friction materials with varying iron and copper content prepared using the spark plasma sintering technique. Powder Metallurgy, 2022, 65, 39-51.	0.9	3
44	Microstructural and Tribological Evaluation of Brake Disc Refurbishing Using Fe-Based Coating via Directed Energy Deposition. Metals, 2022, 12, 465.	1.0	3
45	A novel study on the reduction of non-exhaust particulate matter emissions through system vibration control. Scientific Reports, 2022, 12, 7478.	1.6	3
46	Wear Processes. Springer Tracts in Mechanical Engineering, 2015, , 115-158.	0.1	2
47	Materials for Tribology. Springer Tracts in Mechanical Engineering, 2015, , 159-199.	0.1	1
48	Dry sliding behavior of copper based composite materials prepared using conventional compaction and sintering technique and spark plasma sintering. Wear, 2022, 490-491, 204209.	1.5	1