Riccardo Frisenda

List of Publications by Year in Descending Order

78 papers	3,157 citations	30 h-index	55 g-index
88 ext. papers	4,165 ext. citations	10.4 avg, IF	5.69 L-index

#	Paper	IF	Citations
78	Stretching ReS2 along different crystal directions: Anisotropic tuning of the vibrational and optical responses. *Applied Physics Letters*, **2022**, 120, 063101	3.4	1
77	Direct Growth of Graphene-MoS2 heterostructure: Tailored interface for Advanced Devices. *Applied Surface Science*, **2021**, 581, 151858	6.7	0
76	Paper-supported WS2 strain gauges. *Sensors and Actuators A: Physical*, **2021**, 332, 113204	3.9	1
75	Strongly Anisotropic Strain-Tunability of Excitons in Exfoliated ZrSe. *Advanced Materials*, **2021**, 34, e2103571	24	2
74	Biaxial versus uniaxial strain tuning of single-layer MoS2. *Nano Materials Science*, **2021**,	10.2	4
73	In-plane anisotropic optical and mechanical properties of two-dimensional MoO3. *Npj 2D Materials and Applications*, **2021**, 5,	8.8	9
72	Optical microscopy-based thickness estimation in thin GaSe flakes. *Materials Today Advances*, **2021**, 10, 100143	7.4	3
71	Integrating van der Waals materials on paper substrates for electrical and optical applications. *Applied Materials Today*, **2021**, 23, 101012	6.6	3
70	Strain engineering in single-, bi- and tri-layer MoS2, MoSe2, WS2 and WSe2. *Nano Research*, **2021**, 14, 1698-1703	10	16
69	Gate-Switchable Photovoltaic Effect in BP/MoTe2 van der Waals Heterojunctions for Self-Driven Logic Optoelectronics. *Advanced Optical Materials*, **2021**, 9, 2001802	8.1	12
68	Ultra-broad spectral photo-response in FePS3 air-stable devices. *Npj 2D Materials and Applications*, **2021**, 5,	8.8	12
67	Integrating superconducting van der Waals materials on paper substrates. *Materials Advances*, **2021**, 2, 3274-3281	3.3	2
66	InSe Schottky Diodes Based on Van Der Waals Contacts. *Advanced Functional Materials*, **2020**, 30, 2001307	15.6	27
65	Microheater Actuators as a Versatile Platform for Strain Engineering in 2D Materials. *Nano Letters*, **2020**, 20, 5339-5345	11.5	16
64	MoS-on-paper optoelectronics: drawing photodetectors with van der Waals semiconductors beyond graphite. *Nanoscale*, **2020**, 12, 19068-19074	7.7	15
63	Symmetry Breakdown in Franckeite: Spontaneous Strain, Rippling, and Interlayer Moir *Nano Letters*, **2020**, 20, 1141-1147	11.5	13
62	An inexpensive system for the deterministic transfer of 2D materials. *JPhys Materials*, **2020**, 3, 016001	4.2	15

61	Tunable Photodetectors via In Situ Thermal Conversion of TiS to TiO. *Nanomaterials*, **2020**, 10,	5.4	4
60	A system for the deterministic transfer of 2D materials under inert environmental conditions. *2D Materials*, **2020**, 7, 025034	5.9	11
59	A system to test 2D optoelectronic devices in high vacuum. *JPhys Materials*, **2020**, 3, 036001	4.2	3
58	Thickness Identification of Thin InSe by Optical Microscopy Methods. *Advanced Photonics Research*, **2020**, 1, 2000025	1.9	6
57	Drawing WS thermal sensors on paper substrates. *Nanoscale*, **2020**, 12, 22091-22096	7.7	7
56	Naturally occurring van der Waals materials. *Npj 2D Materials and Applications*, **2020**, 4,	8.8	26
55	Bandgap engineering of two-dimensional semiconductor materials. *Npj 2D Materials and Applications*, **2020**, 4,	8.8	152
54	Giant Piezoresistive Effect and Strong Bandgap Tunability in Ultrathin InSe upon Biaxial Strain. *Advanced Science*, **2020**, 7, 2001645	13.6	13
53	The role of traps in the photocurrent generation mechanism in thin InSe photodetectors. *Materials Horizons*, **2020**, 7, 252-262	14.4	88
52	Biaxial strain tuning of interlayer excitons in bilayer MoS2. *JPhys Materials*, **2020**, 3, 015003	4.2	11
51	A strain tunable single-layer MoS2 photodetector. *Materials Today*, **2019**, 27, 8-13	21.8	91
50	Anisotropic buckling of few-layer black phosphorus. *Nanoscale*, **2019**, 11, 12080-12086	7.7	18
49	Thickness-Dependent Refractive Index of 1L, 2L, and 3L MoS2, MoSe2, WS2, and WSe2. *Advanced Optical Materials*, **2019**, 7, 1900239	8.1	80
48	Thickness determination of MoS2, MoSe2, WS2 and WSe2 on transparent stamps used for deterministic transfer of 2D materials. *Nano Research*, **2019**, 12, 1691-1695	10	30
47	Enhanced Separation Concept (ESC): Removing the Functional Subunit from the Electrode by Molecular Design. *European Journal of Organic Chemistry*, **2019**, 2019, 5334-5343	3.2	6
46	Mechanical and liquid phase exfoliation of cylindrite: a natural van der Waals superlattice with intrinsic magnetic interactions. *2D Materials*, **2019**, 6, 035023	5.9	15
45	InSe: a two-dimensional semiconductor with superior flexibility. *Nanoscale*, **2019**, 11, 9845-9850	7.7	38
44	A reference-free clustering method for the analysis of molecular break-junction measurements. *Applied Physics Letters*, **2019**, 114, 143102	3.4	35

43	Superlattices based on van der Waals 2D materials. *Chemical Communications*, **2019**, 55, 11498-11510	5.8	25
42	Revisiting the Buckling Metrology Method to Determine the Young□s Modulus of 2D Materials. *Advanced Materials*, **2019**, 31, e1807150	24	37
41	Atomically thin p-n junctions based on two-dimensional materials. *Chemical Society Reviews*, **2018**, 47, 3339-3358	58.5	158
40	Polarization-Sensitive and Broadband Photodetection Based on a Mixed-Dimensionality TiS3/Si p□ Junction. *Advanced Optical Materials*, **2018**, 6, 1800351	8.1	42
39	Progress on Black Phosphorus Photonics. *Advanced Optical Materials*, **2018**, 6, 1800365	8.1	29
38	Quantum Transport through a Single Conjugated Rigid Molecule, a Mechanical Break Junction Study. *Accounts of Chemical Research*, **2018**, 51, 1359-1367	24.3	30
37	Large birefringence and linear dichroism in TiS nanosheets. *Nanoscale*, **2018**, 10, 12424-12429	7.7	26
36	Recent progress in the assembly of nanodevices and van der Waals heterostructures by deterministic placement of 2D materials. *Chemical Society Reviews*, **2018**, 47, 53-68	58.5	312
35	Toward Air Stability of Thin GaSe Devices: Avoiding Environmental and Laser-Induced Degradation by Encapsulation. *Advanced Functional Materials*, **2018**, 28, 1805304	15.6	31
34	Thickness-Dependent Differential Reflectance Spectra of Monolayer and Few-Layer MoS□MoSe□ WS□and WSe□*Nanomaterials*, **2018**, 8,	5.4	106
33	Robotic assembly of artificial nanomaterials. *Nature Nanotechnology*, **2018**, 13, 441-442	28.7	6
32	Gate tunable photovoltaic effect in MoS2 vertical p□ homostructures. *Journal of Materials Chemistry C*, **2017**, 5, 854-861	7.1	35
31	Micro-reflectance and transmittance spectroscopy: a versatile and powerful tool to characterize 2D materials. *Journal Physics D: Applied Physics*, **2017**, 50, 074002	3	80
30	Dielectrophoretic assembly of liquid-phase-exfoliated TiS nanoribbons for photodetecting applications. *Chemical Communications*, **2017**, 53, 6164-6167	5.8	14
29	Lithography-free electrical transport measurements on 2D materials by direct microprobing. *Journal of Materials Chemistry C*, **2017**, 5, 11252-11258	7.1	6
28	Photodiodes based in La 0.7 Sr 0.3 MnO 3 /single layer MoS 2 hybrid vertical heterostructures. *2D Materials*, **2017**, 4, 034002	5.9	2
27	Biaxial strain tuning of the optical properties of single-layer transition metal dichalcogenides. *Npj 2D Materials and Applications*, **2017**, 1,	8.8	118
26	A Versatile Scanning Photocurrent Mapping System to Characterize Optoelectronic Devices based on 2D Materials. *Small Methods*, **2017**, 1, 1700119	12.8	15

25	Characterization of highly crystalline lead iodide nanosheets prepared by room-temperature solution processing. *Nanotechnology*, **2017**, 28, 455703	3.4	33
24	Optical contrast and refractive index of natural van der Waals heterostructure nanosheets of franckeite. *Beilstein Journal of Nanotechnology*, **2017**, 8, 2357-2362	3	21
23	High Throughput Characterization of Epitaxially Grown Single-Layer MoS2. *Electronics (Switzerland)*, **2017**, 6, 28	2.6	12
22	Biaxial strain in atomically thin transition metal dichalcogenides **2017**,		3
21	Mechanically controlled quantum interference in individual π-stacked dimers. *Nature Chemistry*, **2016**, 8, 1099-1104	17.6	124
20	Transition from Strong to Weak Electronic Coupling in a Single-Molecule Junction. *Physical Review Letters*, **2016**, 117, 126804	7.4	30
19	Highly responsive UV-photodetectors based on single electrospun TiO2 nanofibres. *Journal of Materials Chemistry C*, **2016**, 4, 10707-10714	7.1	34
18	Charge transport through conjugated azomethine-based single molecules for optoelectronic applications. *Organic Electronics*, **2016**, 34, 38-41	3.5	24
17	Stretching-Induced Conductance Increase in a Spin-Crossover Molecule. *Nano Letters*, **2016**, 16, 4733-7	11.5	66
16	Kondo effect in a neutral and stable all organic radical single molecule break junction. *Nano Letters*, **2015**, 15, 3109-14	11.5	93
15	Einzelmolekül-Spinschalter auf Basis spannungsinduzierter Verzerrung der Koordinationssphäre. *Angewandte Chemie*, **2015**, 127, 13624-13630	3.6	14
14	Single-Molecule Spin Switch Based on Voltage-Triggered Distortion of the Coordination Sphere. *Angewandte Chemie - International Edition*, **2015**, 54, 13425-30	16.4	106
13	Single-Molecule Break Junctions Based on a Perylene-Diimide Cyano-Functionalized (PDI8-CN2) Derivative. *Nanoscale Research Letters*, **2015**, 10, 1011	5	10
12	Electrical properties and mechanical stability of anchoring groups for single-molecule electronics. *Beilstein Journal of Nanotechnology*, **2015**, 6, 1558-67	3	49
11	Probing the local environment of a single OPE3 molecule using inelastic tunneling electron spectroscopy. *Beilstein Journal of Nanotechnology*, **2015**, 6, 2477-2484	3	7
10	Tracking molecular resonance forms of donor-acceptor push-pull molecules by single-molecule conductance experiments. *Nature Communications*, **2015**, 6, 10233	17.4	30
9	A comprehensive study of extended tetrathiafulvalene cruciform molecules for molecular electronics: synthesis and electrical transport measurements. *Journal of the American Chemical Society*, **2014**, 136, 16497-507	16.4	46
8	Large negative differential conductance in single-molecule break junctions. *Nature Nanotechnology*, **2014**, 9, 830-4	28.7	143

7	Effect of metal complexation on the conductance of single-molecular wires measured at room temperature. *Journal of the American Chemical Society*, **2014**, 136, 8314-22	16.4	38
6	Quantum interference effects at room temperature in OPV-based single-molecule junctions. *Nanoscale Research Letters*, **2013**, 8, 234	5	44
5	Signatures of quantum interference effects on charge transport through a single benzene ring. *Angewandte Chemie - International Edition*, **2013**, 52, 3152-5	16.4	170
4	Signatures of Quantum Interference Effects on Charge Transport Through a Single Benzene Ring. *Angewandte Chemie*, **2013**, 125, 3234-3237	3.6	67
3	Statistical analysis of single-molecule breaking traces. *Physica Status Solidi (B): Basic Research*, **2013**, 250, 2431-2436	1.3	52
2	Localized and Dispersive Electronic States at Ordered FePc and CoPc Chains on Au(110). *Journal of Physical Chemistry C*, **2010**, 114, 21638-21644	3.8	80
1	Fiber-coupled light-emitting diodes (LEDs) as safe and convenient light sources for the characterization of optoelectronic devices. *Open Research Europe*,1, 98		0