Roberto Rosati

List of Publications by Year
in descending order

26 papers	**491** citations	758635 **12** h-index	676716 **22** g-index
26 all docs	**26** docs citations	**26** times ranked	**362** citing authors

#	Article	IF	Citations
1	Microscopic modeling of exciton-polariton diffusion coefficients in atomically thin semiconductors. Physical Review Materials, 2022, 6, .	0.9	4
2	Nonclassical Exciton Diffusion in Monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>WSe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></ Physical Review Letters, 2021, 127, 076801.	2.9	40
3	Strain-dependent exciton diffusion in transition metal dichalcogenides. 2D Materials, 2021, 8, 015030.	2.0	21
4	Electron Dynamics in a Two-Dimensional Nanobubble: A Two-Level System Based on Spatial Density. Nano Letters, 2021, 21, 9896-9902.	4.5	3
5	Non-equilibrium diffusion of dark excitons in atomically thin semiconductors. Nanoscale, 2021, 13, 19966-19972.	2.8	6
6	Dark exciton anti-funneling in atomically thin semiconductors. Nature Communications, 2021, 12, 7221.	5.8	35
7	Negative effective excitonic diffusion in monolayer transition metal dichalcogenides. Nanoscale, 2020, 12, 356-363.	2.8	37
8	Temporal Evolution of Low-Temperature Phonon Sidebands in Transition Metal Dichalcogenides. ACS Photonics, 2020, 7, 2756-2764.	3.2	20
9	Exciton diffusion in monolayer semiconductors with suppressed disorder. Physical Review B, 2020, 101, .	1.1	74
10	Effective detection of spatio-temporal carrier dynamics by carrier capture. Journal of Physics Condensed Matter, 2019, 31, 28LT01.	0.7	3
11	Exciton Propagation and Halo Formation in Two-Dimensional Materials. Nano Letters, 2019, 19, 7317-7323.	4.5	64
12	Spatiotemporal dynamics of Coulomb-correlated carriers in semiconductors. Physical Review B, 2019, 99, .	1.1	4
13	Spatial control of carrier capture in two-dimensional materials: Beyond energy selection rules. Physical Review B, 2018, 98, .	1.1	9
14	Lindblad approach to spatiotemporal quantum dynamics of phonon-induced carrier capture processes. Physical Review B, 2017, 95, .	1.1	12
15	Spatio-Temporal Dynamics of Carrier Capture Processes: Simulation of Optical Signals. Acta Physica Polonica A, 2017, 132, 372-375.	0.2	5
16	Electron-phonon coupling in metallic carbon nanotubes: Dispersionless electron propagation despite dissipation. Physical Review B, 2015, 92, .	1.1	13
17	Dispersionless propagation of electron wavepackets in single-walled carbon nanotubes. Applied Physics Letters, 2015, 106, 243101.	1.5	10
18	Phonon-induced quantum diffusion in Carbon-based materials. Journal of Physics: Conference Series, 2015, 647, 012045.	0.3	0

#	Article	IF	Citations
19	Microscopic treatment of energy dissipation and decoherence via many-body Lindblad superoperators. Journal of Physics: Conference Series, 2015, 647, 012027.	0.3	1
20	Derivation of nonlinear single-particle equations via many-body Lindblad superoperators: A density-matrix approach. Physical Review B, 2014, 90, .	1.1	38
21	Microscopic modeling of quantum devices at high carrier densities via Lindblad-type scattering superoperators. , 2014, , .		0
22	Scattering nonlocality in quantum charge transport: Application to semiconductor nanostructures. Physical Review B, 2014, 89, .	1.1	20
23	Quantum diffusion due to scattering non-locality in nanoscale semiconductors. Europhysics Letters, 2014, 105, 17010.	0.7	6
24	Phonon-induced quantum diffusion in semiconductors. , 2014, , .		0
25	Microscopic modeling of scattering quantum non-locality in semiconductor nanostructures. Applied Physics Letters, 2013, 103, 113105.	1.5	12
26	Wigner-function formalism applied to semiconductor quantum devices: Failure of the conventional boundary condition scheme. Physical Review B, 2013, 88, .	1.1	54