# Maciej Molas

## List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/5037021/publications.pdf

Version: 2024-02-01

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|---|---|---|---|
| 66 papers | 2,786 citations | 236925 25 h-index | 175258 52 g-index |
| 70 all docs | 70 docs citations | 70 times ranked | 3759 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Resonantly hybridized excitons in moirÃ© superlattices in van der Waals heterostructures. Nature, 2019, 567, 81-86. | 27.8 | 621 |
| 2 | Brightening of dark excitons in monolayers of semiconducting transition metal dichalcogenides. 2D Materials, 2017, 4, 021003. | 4.4 | 192 |
| 3 | Optical properties of atomically thin transition metal dichalcogenides: observations and puzzles. Nanophotonics, 2017, 6, 1289-1308. | 6.0 | 165 |
| 4 | Exciton band structure in layered MoSe<sub>2</sub>: from a monolayer to the bulk limit. Nanoscale, 2015, 7, 20769-20775. | 5.6 | 163 |
| 5 | The direct-to-indirect band gap crossover in two-dimensional van der Waals Indium Selenide crystals. Scientific Reports, 2016, 6, 39619. | 3.3 | 150 |
| 6 | Valley Zeeman Splitting and Valley Polarization of Neutral and Charged Excitons in Monolayer MoTe<sub>2</sub> at High Magnetic Fields. Nano Letters, 2016, 16, 3624-3629. | 9.1 | 102 |
| 7 | The optical response of monolayer, few-layer and bulk tungsten disulfide. Nanoscale, 2017, 9, 13128-13141. | 5.6 | 97 |
| 8 | Measurement of the spin-forbidden dark excitons in MoS2 and MoSe2 monolayers. Nature Communications, 2020, 11, 4037. | 12.8 | 86 |
| 9 | Orbital, spin and valley contributions to Zeeman splitting of excitonic resonances in MoSe <sub>2</sub> , WSe <sub>2</sub> and WS <sub>2</sub> Monolayers. 2D Materials, 2019, 6, 015001. | 4.4 | 85 |
| 10 | Interlayer excitons in a bulk van der Waals semiconductor. Nature Communications, 2017, 8, 639. | 12.8 | 76 |
| 11 | Raman scattering of few-layers MoTe <sub>2</sub>. 2D Materials, 2016, 3, 025010. | 4.4 | 67 |
| 12 | Raman scattering excitation spectroscopy of monolayer WS2. Scientific Reports, 2017, 7, 5036. | 3.3 | 63 |
| 13 | Singlet and triplet trions in WS<sub>2</sub> monolayer encapsulated in hexagonal boron nitride. Nanotechnology, 2018, 29, 325705. | 2.6 | 63 |
| 14 | Energy Spectrum of Two-Dimensional Excitons in a Nonuniform Dielectric Medium. Physical Review Letters, 2019, 123, 136801. | 7.8 | 56 |
| 15 | Rhombohedral Multilayer Graphene: A Magneto-Raman Scattering Study. Nano Letters, 2016, 16, 3710-3716. | 9.1 | 51 |
| 16 | Upconverted electroluminescence via Auger scattering of interlayer excitons in van der Waals heterostructures. Nature Communications, 2019, 10, 2335. | 12.8 | 51 |
| 17 | Probing and Manipulating Valley Coherence of Dark Excitons 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, 2019, 123, 096803. | 7.8 | 49 |
| 18 | Raman spectroscopy of GaSe and InSe post-transition metal chalcogenides layers. Faraday Discussions, 2021, 227, 163-170. | 3.2 | 43 |

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|---|---|---|---|
| 19 | Magnetic field tuning of exciton-polaritons in a semiconductor microcavity. Physical Review B, 2015, 91, . | 3.2 | 41 |
| 20 | Sub-bandgap Voltage Electroluminescence and Magneto-oscillations in a WSe<sub>2</sub> Light-Emitting van der Waals Heterostructure. Nano Letters, 2017, 17, 1425-1430. | 9.1 | 41 |
| 21 | Impact of environment on dynamics of exciton complexes in a WS <sub>2</sub> monolayer. 2D Materials, 2018, 5, 031007. | 4.4 | 39 |
| 22 | Excitonic Complexes in n-Doped WS<sub>2</sub> Monolayer. Nano Letters, 2021, 21, 2519-2525. | 9.1 | 35 |
| 23 | Valley-contrasting optics of interlayer excitons in Mo- and W-based bulk transition metal dichalcogenides. Nanoscale, 2018, 10, 15571-15577. | 5.6 | 31 |
| 24 | Excitonic complexes in natural InAs/GaAs quantum dots. Physical Review B, 2015, 91, . | 3.2 | 30 |
| 25 | Fine structure of K-excitons in multilayers of transition metal dichalcogenides. 2D Materials, 2019, 6, 025026. | 4.4 | 28 |
| 26 | Zeeman spectroscopy of excitons and hybridization of electronic states in few-layer WSe <sub>2</sub> , MoSe <sub>2</sub> and MoTe <sub>2</sub>. 2D Materials, 2019, 6, 015010. | 4.4 | 22 |
| 27 | Neutral and charged dark excitons in monolayer WS<sub>2</sub>. Nanoscale, 2020, 12, 18153-18159. | 5.6 | 22 |
| 28 | Quantification of Exciton Fine Structure Splitting in a Two-Dimensional Perovskite Compound. Journal of Physical Chemistry Letters, 2022, 13, 4463-4469. | 4.6 | 20 |
| 29 | Exciton-polaritons in multilayer WSe <sub>2</sub> in a planar microcavity. 2D Materials, 2020, 7, 015006. | 4.4 | 19 |
| 30 | Tuning carrier concentration in a superacid treated MoS2 monolayer. Scientific Reports, 2019, 9, 1989. | 3.3 | 18 |
| 31 | Magneto-spectroscopy of exciton Rydberg states in a CVD grown WSe2 monolayer. Applied Physics Letters, 2019, 114, . | 3.3 | 17 |
| 32 | Valley polarization of excitonâ€“polaritons in monolayer WSe<sub>2</sub> in a tunable microcavity. Nanoscale, 2019, 11, 9574-9579. | 5.6 | 17 |
| 33 | The optical signature of few-layer ReSe2. Journal of Applied Physics, 2020, 128, . | 2.5 | 17 |
| 34 | Resonant quenching of Raman scattering due to out-of-plane A1g/Aâ€²1 modes in few-layer MoTe2. Nanophotonics, 2017, 6, 1281-1288. | 6.0 | 16 |
| 35 | Valley polarization of singlet and triplet trions in a WS<sub>2</sub> monolayer in magnetic fields. Physical Chemistry Chemical Physics, 2020, 22, 19155-19161. | 2.8 | 16 |
| 36 | Exposing the trion's fine structure by controlling the carrier concentration in hBN-encapsulated MoS<sub>2</sub>. Nanoscale, 2021, 13, 18726-18733. | 5.6 | 14 |

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| 37 | Raman scattering from the bulk inactive outâ€“ofâ€“plane $${{f{B}}}_{{f{2}}{f{g}}}^{{f{1}}}$$ mode in fewâ€“layer MoTe2. Scientific Reports, 2018, 8, 17745. | 3.3 | 12 |
| 38 | Evidence for nesting-driven charge density wave instabilities in the quasi-two-dimensional material <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>LaAgSb</mml:mi><mml:mn>2</mml:mn></mml:msub></ Physical Review Research, 2021, 3, . | 3.6 | 11 |
| 39 | Photoluminescence as a probe of phosphorene properties. Npj 2D Materials and Applications, 2021, 5, . | 7.9 | 11 |
| 40 | The effect of metallic substrates on the optical properties of monolayer MoSe2. Scientific Reports, 2020, 10, 4981. | 3.3 | 10 |
| 41 | The optical response of artificially twisted MoS$$_2$$ bilayers. Scientific Reports, 2021, 11, 17037. | 3.3 | 10 |
| 42 | <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>2</mml:mn><mml:mi>s</mml:mi></mml:mrow></mml:m exciton-polariton revealed in an external magnetic field. Physical Review B, 2017, 96, . | 3.2 | 8 |
| 43 | Magnetic field induced polarization enhancement in monolayers of tungsten dichalcogenides: effects of temperature. 2D Materials, 2018, 5, 015023. | 4.4 | 8 |
| 44 | Breathing modes in few-layer MoTe2 activated by h-BN encapsulation. Applied Physics Letters, 2020, 116, . | 3.3 | 8 |
| 45 | Crystal-Phase Quantum Wires: One-Dimensional Heterostructures with Atomically Flat Interfaces. Nano Letters, 2018, 18, 247-254. | 9.1 | 7 |
| 46 | Anisotropic Optical and Vibrational Properties of GeS. Nanomaterials, 2021, 11, 3109. | 4.1 | 7 |
| 47 | The effect of In-flush on the optical anisotropy of InAs/GaAs quantum dots. Journal of Applied Physics, 2012, 111, 033510. | 2.5 | 6 |
| 48 | Resonance and antiresonance in Raman scattering in GaSe and InSe crystals. Scientific Reports, 2021, 11, 924. | 3.3 | 6 |
| 49 | Fine Structure of Neutral Excitons in Single GaAlAs Quantum Dots. Acta Physica Polonica A, 2012, 122, 988-990. | 0.5 | 6 |
| 50 | Extended anisotropic phonon dispersion and optical properties of two-dimensional ternary SnSSe. Inorganic Chemistry Frontiers, 2022, 9, 294-301. | 6.0 | 5 |
| 51 | The effect of dielectric environment on the brightening of neutral and charged dark excitons in WSe2 monolayer. Applied Physics Letters, 2022, 120, . | 3.3 | 5 |
| 52 | Intershell Exchange Interaction in Charged GaAlAs Quantum Dots. Acta Physica Polonica A, 2013, 124, 785-787. | 0.5 | 4 |
| 53 | Quadexciton cascade and fine-structure splitting of the triexciton in a single quantum dot. Europhysics Letters, 2016, 113, 17004. | 2.0 | 4 |
| 54 | Free Carrier Scattering in Metallic n-GaAs in the Presence of Static Lattice Distortions Due to a Partial Chemical Order of Impurities. Acta Physica Polonica A, 2009, 116, 979-982. | 0.5 | 4 |

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| 55 | The Fine Structure of a Triexciton in Single InAs/GaAs Quantum Dots. Acta Physica Polonica A, 2012, 122, 991-993. | 0.5 | 4 |
| 56 | Emission Excitation Spectroscopy in WS<sub>2</sub> Monolayer Encapsulated in Hexagonal BN. Acta Physica Polonica A, 2019, 136, 624-627. | 0.5 | 4 |
| 57 | The excited spin-triplet state of a charged exciton in quantum dots. Journal of Physics Condensed Matter, 2016, 28, 365301. | 1.8 | 3 |
| 58 | The Effect of Substrate on Vibrational Properties of Single-Layer MoS_2. Acta Physica Polonica A, 2016, 130, 1172-1175. | 0.5 | 3 |
| 59 | Strong Photoluminescence Fluctuations in Laser-Thinned Few-Layer WS_{2}. Acta Physica Polonica A, 2016, 130, 1176-1178. | 0.5 | 3 |
| 60 | Properties of Excitons in Quantum Dots with a Weak Confinement. Acta Physica Polonica A, 2013, 124, 781-784. | 0.5 | 2 |
| 61 | Energy spectrum of confined positively charged excitons in single quantum dots. Physical Review B, 2016, 94, . | 3.2 | 2 |
| 62 | Temperature dependence of photoluminescence lifetime of atomically-thin WSe2 layer. Nanotechnology, 2020, 31, 135002. | 2.6 | 2 |
| 63 | Magnetic Field Effect on the Excitation Spectrum of a Neutral Exciton in a Single Quantum Dot. Acta Physica Polonica A, 2014, 126, 1066-1068. | 0.5 | 1 |
| 64 | Anomalous Raman Scattering In Few Monolayer MoTe2. MRS Advances, 2017, 2, 1539-1544. | 0.9 | 1 |
| 65 | Quantum confinement in MOVPE-grown structures with self-assembled InAs/GaAs quantum dots. Journal of Physics: Conference Series, 2010, 245, 012079. | 0.4 | 0 |
| 66 | Quantum Confinement in InAs/GaAs Systems with Self-Assembled Quantum Dots Grown Using In-Flush Technique. Acta Physica Polonica A, 2011, 119, 624-626. | 0.5 | 0 |