# Viktor Zlyomi

## List of Publications by Citations



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|---|---|---|---|
| 33 papers | 2,647 citations | 18 h-index | 33 g-index |
| 33 ext. papers | 3,203 ext. citations | 7.9 avg, IF | 4.87 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 33 | High electron mobility, quantum Hall effect and anomalous optical response in atomically thin InSe. *Nature Nanotechnology*, **2017**, 12, 223-227 | 28.7 | 723 |
| 32 | Breaking of valley degeneracy by magnetic field in monolayer MoSe2. *Physical Review Letters*, **2015**, 114, 037401 | 7.4 | 401 |
| 31 | Monolayer MoS2: Trigonal warping, the valley, and spin-orbit coupling effects. *Physical Review B*, **2013**, 88, | 3.3 | 310 |
| 30 | High-sensitivity photodetectors based on multilayer GaTe flakes. *ACS Nano*, **2014**, 8, 752-60 | 16.7 | 257 |
| 29 | Spin-Orbit Coupling, Quantum Dots, and Qubits in Monolayer Transition Metal Dichalcogenides. *Physical Review X*, **2014**, 4, | 9.1 | 183 |
| 28 | The geometry and the radial breathing mode of carbon nanotubes: beyond the ideal behaviour. *New Journal of Physics*, **2003**, 5, 125-125 | 2.9 | 138 |
| 27 | Atomic reconstruction in twisted bilayers of transition metal dichalcogenides. *Nature Nanotechnology*, **2020**, 15, 592-597 | 28.7 | 110 |
| 26 | Exfoliation of natural van der Waals heterostructures to a single unit cell thickness. *Nature Communications*, **2017**, 8, 14410 | 17.4 | 66 |
| 25 | Design of van der Waals interfaces for broad-spectrum optoelectronics. *Nature Materials*, **2020**, 19, 299-304 | 27 | 64 |
| 24 | Tunable Berry curvature and valley and spin Hall effect in bilayer MoS2. *Physical Review B*, **2018**, 98, | 3.3 | 47 |
| 23 | Broken mirror symmetry in excitonic response of reconstructed domains in twisted MoSe/MoSe bilayers. *Nature Nanotechnology*, **2020**, 15, 750-754 | 28.7 | 46 |
| 22 | Indirect to Direct Gap Crossover in Two-Dimensional InSe Revealed by Angle-Resolved Photoemission Spectroscopy. *ACS Nano*, **2019**, 13, 2136-2142 | 16.7 | 40 |
| 21 | Infrared-to-violet tunable optical activity in atomic films of GaSe, InSe, and their heterostructures. *2D Materials*, **2018**, 5, 041009 | 5.9 | 39 |
| 20 | Valence band inversion and spin-orbit effects in the electronic structure of monolayer GaSe. *Physical Review B*, **2018**, 98, | 3.3 | 34 |
| 19 | Electronic properties of linear carbon chains: resolving the controversy. *Journal of Chemical Physics*, **2014**, 140, 104306 | 3.9 | 32 |
| 18 | Optoelectronic properties of atomically thin ReSSe with weak interlayer coupling. *Nanoscale*, **2016**, 8, 5826-34 | 7.7 | 27 |
| 17 | Formation and Healing of Defects in Atomically Thin GaSe and InSe. *ACS Nano*, **2019**, 13, 5112-5123 | 16.7 | 23 |

# List of Publications

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|---|---|---|---|
| 16 | In Situ Raman Spectroelectrochemistry of Single-Walled Carbon Nanotubes: Investigation of Materials Enriched with (6,5) Tubes. *Journal of Physical Chemistry C*, **2008**, 112, 14179-14187 | 3.8 | 22 |
| 15 | Hybrid k·p tight-binding model for subbands and infrared intersubband optics in few-layer films of transition-metal dichalcogenides: MoS2, MoSe2, WS2, and WSe2. *Physical Review B*, **2018**, 98, | 3.3 | 18 |
| 14 | Density of states deduced from ESR measurements on low-dimensional nanostructures; benchmarks to identify the ESR signals of graphene and SWCNTs. *Physica Status Solidi (B): Basic Research*, **2011**, 248, 2688-2691 | 1.3 | 16 |
| 13 | Raman spectroscopy of GaSe and InSe post-transition metal chalcogenides layers. *Faraday Discussions*, **2021**, 227, 163-170 | 3.6 | 11 |
| 12 | Phonon dispersion of small diameter semiconducting chiral carbon nanotubes – a theoretical study. *Physica Status Solidi (B): Basic Research*, **2008**, 245, 2137-2140 | 1.3 | 8 |
| 11 | The transformation of open picotubes to a closed molecular configuration. *Physica Status Solidi (B): Basic Research*, **2006**, 243, 3151-3154 | 1.3 | 7 |
| 10 | Resonance Raman Spectroscopy of Silicene and Germanene. *Journal of Physical Chemistry C*, **2019**, 123, 1995-2008 | 3.8 | 7 |
| 9 | Using line group theory for the symmetry assignment of the phonons of single walled carbon nanotubes. *Physica Status Solidi (B): Basic Research*, **2009**, 246, 2614-2617 | 1.3 | 4 |
| 8 | I-band-like non-dispersive inter-shell interaction induced Raman lines in the D-band region of double-walled carbon nanotubes. *Applied Physics A: Materials Science and Processing*, **2015**, 118, 587-593 | 2.6 | 3 |
| 7 | Junctions of left- and right-handed chiral carbon nanotubes – nanobamboo. *Physica Status Solidi (B): Basic Research*, **2009**, 246, 2671-2674 | 1.3 | 3 |
| 6 | Hydrocarbon chains and rings: bond length alternation in finite molecules. *Theoretical Chemistry Accounts*, **2015**, 134, 1 | 1.9 | 2 |
| 5 | Theoretical study of the electronic structure and the totally symmetric vibrations of selected CoMoCat carbon nanotubes. *Physica Status Solidi (B): Basic Research*, **2008**, 245, 2141-2144 | 1.3 | 2 |
| 4 | Ghost anti-crossings caused by interlayer umklapp hybridization of bands in 2D heterostructures. *2D Materials*, **2021**, 8, 015016 | 5.9 | 2 |
| 3 | Crossover from weakly indirect to direct excitons in atomically thin films of InSe. *Physical Review B*, **2020**, 101, | 3.3 | 1 |
| 2 | Two component doping of fullerene–cubane cocrystals. *Physica Status Solidi (B): Basic Research*, **2009**, 246, 2618-2621 | 1.3 | 1 |
| 1 | Single-wall carbon nanotubes: spintronics in the Luttinger liquid phase. *Physica Status Solidi (B): Basic Research*, **2009**, 246, 2744-2749 | 1.3 | |