

# Takashi Taniguchi

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/3097873/takashi-taniguchi-publications-by-citations.pdf>  
**Version:** 2024-04-10

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.  
The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

1,443 papers	90,368 citations	135 h-index	265 g-index
1,641 ext. papers	119,243 ext. citations	13.4 avg, IF	8.6 L-index

#	Paper	IF	Citations
1443	Boron nitride substrates for high-quality graphene electronics. <i>Nature Nanotechnology</i> , <b>2010</b> , 5, 722-6	28.7	4874
1442	Unconventional superconductivity in magic-angle graphene superlattices. <i>Nature</i> , <b>2018</b> , 556, 43-50	50.4	2942
1441	Direct-bandgap properties and evidence for ultraviolet lasing of hexagonal boron nitride single crystal. <i>Nature Materials</i> , <b>2004</b> , 3, 404-9	27	2103
1440	Correlated insulator behaviour at half-filling in magic-angle graphene superlattices. <i>Nature</i> , <b>2018</b> , 556, 80-84	50.4	1771
1439	One-dimensional electrical contact to a two-dimensional material. <i>Science</i> , <b>2013</b> , 342, 614-7	33.3	1676
1438	Micrometer-scale ballistic transport in encapsulated graphene at room temperature. <i>Nano Letters</i> , <b>2011</b> , 11, 2396-9	11.5	1203
1437	Electrically tunable excitonic light-emitting diodes based on monolayer WSe <sub>2</sub> p-n junctions. <i>Nature Nanotechnology</i> , <b>2014</b> , 9, 268-72	28.7	1202
1436	Light-emitting diodes by band-structure engineering in van der Waals heterostructures. <i>Nature Materials</i> , <b>2015</b> , 14, 301-6	27	1116
1435	Massive Dirac fermions and Hofstadter butterfly in a van der Waals heterostructure. <i>Science</i> , <b>2013</b> , 340, 1427-30	33.3	1092
1434	Hofstadter's butterfly and the fractal quantum Hall effect in moiré superlattices. <i>Nature</i> , <b>2013</b> , 497, 598-602	33.3	1084
1433	Scanning tunnelling microscopy and spectroscopy of ultra-flat graphene on hexagonal boron nitride. <i>Nature Materials</i> , <b>2011</b> , 10, 282-5	27	985
1432	Deep ultraviolet light-emitting hexagonal boron nitride synthesized at atmospheric pressure. <i>Science</i> , <b>2007</b> , 317, 932-4	33.3	907
1431	Multi-terminal transport measurements of MoS <sub>2</sub> using a van der Waals heterostructure device platform. <i>Nature Nanotechnology</i> , <b>2015</b> , 10, 534-40	28.7	868
1430	Tuning superconductivity in twisted bilayer graphene. <i>Science</i> , <b>2019</b> , 363, 1059-1064	33.3	814
1429	Flexible and transparent MoS <sub>2</sub> field-effect transistors on hexagonal boron nitride-graphene heterostructures. <i>ACS Nano</i> , <b>2013</b> , 7, 7931-6	16.7	800
1428	Emergence of superlattice Dirac points in graphene on hexagonal boron nitride. <i>Nature Physics</i> , <b>2012</b> , 8, 382-386	16.2	793
1427	Hunting for monolayer boron nitride: optical and Raman signatures. <i>Small</i> , <b>2011</b> , 7, 465-8	11	791

1426	Epitaxial growth of single-domain graphene on hexagonal boron nitride. <i>Nature Materials</i> , <b>2013</b> , 12, 792-797	33.3	745
1425	Hot carrier-assisted intrinsic photoresponse in graphene. <i>Science</i> , <b>2011</b> , 334, 648-52	33.3	722
1424	Tunable phonon polaritons in atomically thin van der Waals crystals of boron nitride. <i>Science</i> , <b>2014</b> , 343, 1125-9	33.3	695
1423	Highly confined low-loss plasmons in graphene-boron nitride heterostructures. <i>Nature Materials</i> , <b>2015</b> , 14, 421-5	27	681
1422	Commensurate-incommensurate transition in graphene on hexagonal boron nitride. <i>Nature Physics</i> , <b>2014</b> , 10, 451-456	16.2	582
1421	Emergent ferromagnetism near three-quarters filling in twisted bilayer graphene. <i>Science</i> , <b>2019</b> , 365, 605-608	33.3	568
1420	Giant tunneling magnetoresistance in spin-filter van der Waals heterostructures. <i>Science</i> , <b>2018</b> , 360, 1214-1218	33.3	555
1419	Evidence for moiré excitons in van der Waals heterostructures. <i>Nature</i> , <b>2019</b> , 567, 71-75	50.4	538
1418	Sub-diffractive volume-confined polaritons in the natural hyperbolic material hexagonal boron nitride. <i>Nature Communications</i> , <b>2014</b> , 5, 5221	17.4	498
1417	Ultrahigh-mobility graphene devices from chemical vapor deposition on reusable copper. <i>Science Advances</i> , <b>2015</b> , 1, e1500222	14.3	491
1416	Strong oxidation resistance of atomically thin boron nitride nanosheets. <i>ACS Nano</i> , <b>2014</b> , 8, 1457-62	16.7	490
1415	Superconductors, orbital magnets and correlated states in magic-angle bilayer graphene. <i>Nature</i> , <b>2019</b> , 574, 653-657	50.4	490
1414	Direct observation of the layer-dependent electronic structure in phosphorene. <i>Nature Nanotechnology</i> , <b>2017</b> , 12, 21-25	28.7	473
1413	Observation of moiré excitons in WSe/WS heterostructure superlattices. <i>Nature</i> , <b>2019</b> , 567, 76-80	50.4	459
1412	Probing magnetism in 2D van der Waals crystalline insulators via electron tunneling. <i>Science</i> , <b>2018</b> , 360, 1218-1222	33.3	444
1411	Structure of chemically derived mono- and few-atomic-layer boron nitride sheets. <i>Applied Physics Letters</i> , <b>2008</b> , 93, 223103	3.4	436
1410	Lateral MoS <sub>2</sub> p-n junction formed by chemical doping for use in high-performance optoelectronics. <i>ACS Nano</i> , <b>2014</b> , 8, 9332-40	16.7	419
1409	Van der Waals engineering of ferromagnetic semiconductor heterostructures for spin and valleytronics. <i>Science Advances</i> , <b>2017</b> , 3, e1603113	14.3	419

1408	Tunable metal-insulator transition in double-layer graphene heterostructures. <i>Nature Physics</i> , <b>2011</b> , 7, 958-961	16.2	417
1407	Observation of the quantum spin Hall effect up to 100 kelvin in a monolayer crystal. <i>Science</i> , <b>2018</b> , 359, 76-79	33.3	401
1406	Anomalously low dielectric constant of confined water. <i>Science</i> , <b>2018</b> , 360, 1339-1342	33.3	397
1405	Transport properties of pristine few-layer black phosphorus by van der Waals passivation in an inert atmosphere. <i>Nature Communications</i> , <b>2015</b> , 6, 6647	17.4	394
1404	Air-stable transport in graphene-contacted, fully encapsulated ultrathin black phosphorus-based field-effect transistors. <i>ACS Nano</i> , <b>2015</b> , 9, 4138-45	16.7	393
1403	Picosecond photoresponse in van der Waals heterostructures. <i>Nature Nanotechnology</i> , <b>2016</b> , 11, 42-6	28.7	392
1402	Graphene on hexagonal boron nitride as a tunable hyperbolic metamaterial. <i>Nature Nanotechnology</i> , <b>2015</b> , 10, 682-6	28.7	390
1401	Intrinsic quantized anomalous Hall effect in a moiré heterostructure. <i>Science</i> , <b>2020</b> , 367, 900-903	33.3	377
1400	Mechanical properties of atomically thin boron nitride and the role of interlayer interactions. <i>Nature Communications</i> , <b>2017</b> , 8, 15815	17.4	371
1399	Resonantly hybridized excitons in moiré superlattices in van der Waals heterostructures. <i>Nature</i> , <b>2019</b> , 567, 81-86	50.4	367
1398	Maximized electron interactions at the magic angle in twisted bilayer graphene. <i>Nature</i> , <b>2019</b> , 572, 95-100	50.4	351
1397	Multicomponent fractional quantum Hall effect in graphene. <i>Nature Physics</i> , <b>2011</b> , 7, 693-696	16.2	347
1396	Electronic properties of graphene encapsulated with different two-dimensional atomic crystals. <i>Nano Letters</i> , <b>2014</b> , 14, 3270-6	11.5	345
1395	Synthesis of high-purity boron nitride single crystals under high pressure by using BaB <sub>2</sub> N solvent. <i>Journal of Crystal Growth</i> , <b>2007</b> , 303, 525-529	1.6	345
1394	Far-ultraviolet plane-emission handheld device based on hexagonal boron nitride. <i>Nature Photonics</i> , <b>2009</b> , 3, 591-594	33.9	343
1393	Twist-controlled resonant tunnelling in graphene/boron nitride/graphene heterostructures. <i>Nature Nanotechnology</i> , <b>2014</b> , 9, 808-13	28.7	341
1392	Observation of the Dirac fluid and the breakdown of the Wiedemann-Franz law in graphene. <i>Science</i> , <b>2016</b> , 351, 1058-61	33.3	328
1391	Very large tunneling magnetoresistance in layered magnetic semiconductor CrI <sub>3</sub> . <i>Nature Communications</i> , <b>2018</b> , 9, 2516	17.4	317

1390	Boron nitride substrates for high mobility chemical vapor deposited graphene. <i>Applied Physics Letters</i> , <b>2011</b> , 98, 242105	3.4	305
1389	Strong Coulomb drag and broken symmetry in double-layer graphene. <i>Nature Physics</i> , <b>2012</b> , 8, 896-901	16.2	303
1388	Hyperbolic phonon-polaritons in boron nitride for near-field optical imaging and focusing. <i>Nature Communications</i> , <b>2015</b> , 6, 7507	17.4	300
1387	van der Waals Heterostructures with High Accuracy Rotational Alignment. <i>Nano Letters</i> , <b>2016</b> , 16, 1989-95	15.5	300
1386	Tunable moiré bands and strong correlations in small-twist-angle bilayer graphene. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, 3364-3369	11.5	294
1385	Quality Heterostructures from Two-Dimensional Crystals Unstable in Air by Their Assembly in Inert Atmosphere. <i>Nano Letters</i> , <b>2015</b> , 15, 4914-21	11.5	289
1384	Quantum Hall effect in black phosphorus two-dimensional electron system. <i>Nature Nanotechnology</i> , <b>2016</b> , 11, 593-7	28.7	289
1383	Atomic and electronic reconstruction at the van der Waals interface in twisted bilayer graphene. <i>Nature Materials</i> , <b>2019</b> , 18, 448-453	27	282
1382	Evidence of a gate-tunable Mott insulator in a trilayer graphene moiré superlattice. <i>Nature Physics</i> , <b>2019</b> , 15, 237-241	16.2	274
1381	Two-dimensional quasi-freestanding molecular crystals for high-performance organic field-effect transistors. <i>Nature Communications</i> , <b>2014</b> , 5, 5162	17.4	270
1380	Signatures of tunable superconductivity in a trilayer graphene moiré superlattice. <i>Nature</i> , <b>2019</b> , 572, 215-219	50.4	264
1379	Highly Stable, Dual-Gated MoS <sub>2</sub> Transistors Encapsulated by Hexagonal Boron Nitride with Gate-Controllable Contact, Resistance, and Threshold Voltage. <i>ACS Nano</i> , <b>2015</b> , 9, 7019-26	16.7	256
1378	Charge order and broken rotational symmetry in magic-angle twisted bilayer graphene. <i>Nature</i> , <b>2019</b> , 573, 91-95	50.4	255
1377	Subdiffractional focusing and guiding of polaritonic rays in a natural hyperbolic material. <i>Nature Communications</i> , <b>2015</b> , 6, 6963	17.4	255
1376	Spin and valley quantum Hall ferromagnetism in graphene. <i>Nature Physics</i> , <b>2012</b> , 8, 550-556	16.2	255
1375	Raman spectroscopy as probe of nanometre-scale strain variations in graphene. <i>Nature Communications</i> , <b>2015</b> , 6, 8429	17.4	253
1374	Generation and detection of pure valley current by electrically induced Berry curvature in bilayer graphene. <i>Nature Physics</i> , <b>2015</b> , 11, 1032-1036	16.2	250
1373	Electronic correlations in twisted bilayer graphene near the magic angle. <i>Nature Physics</i> , <b>2019</b> , 15, 1174-1180	16.80	247

1372	Quantum oscillations in a two-dimensional electron gas in black phosphorus thin films. <i>Nature Nanotechnology</i> , <b>2015</b> , 10, 608-13	28.7	245
1371	Twistable electronics with dynamically rotatable heterostructures. <i>Science</i> , <b>2018</b> , 361, 690-693	33.3	242
1370	Spectroscopic signatures of many-body correlations in magic-angle twisted bilayer graphene. <i>Nature</i> , <b>2019</b> , 572, 101-105	50.4	239
1369	Excitonic Linewidth Approaching the Homogeneous Limit in MoS <sub>2</sub> -Based van der Waals Heterostructures. <i>Physical Review X</i> , <b>2017</b> , 7,	9.1	237
1368	A MoTe-based light-emitting diode and photodetector for silicon photonic integrated circuits. <i>Nature Nanotechnology</i> , <b>2017</b> , 12, 1124-1129	28.7	229
1367	Gate-tunable topological valley transport in bilayer graphene. <i>Nature Physics</i> , <b>2015</b> , 11, 1027-1031	16.2	226
1366	Photoinduced doping in heterostructures of graphene and boron nitride. <i>Nature Nanotechnology</i> , <b>2014</b> , 9, 348-52	28.7	221
1365	Superlattice-Induced Insulating States and Valley-Protected Orbits in Twisted Bilayer Graphene. <i>Physical Review Letters</i> , <b>2016</b> , 117, 116804	7.4	218
1364	High Responsivity Phototransistors Based on Few-Layer ReS <sub>2</sub> for Weak Signal Detection. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 1938-1944	15.6	217
1363	Room-temperature electrical control of exciton flux in a van der Waals heterostructure. <i>Nature</i> , <b>2018</b> , 560, 340-344	50.4	217
1362	Giant nonlocality near the Dirac point in graphene. <i>Science</i> , <b>2011</b> , 332, 328-30	33.3	217
1361	Tunable correlated Chern insulator and ferromagnetism in a moiré superlattice. <i>Nature</i> , <b>2020</b> , 579, 56-61	50.4	215
1360	Mott and generalized Wigner crystal states in WSe/WS moiré superlattices. <i>Nature</i> , <b>2020</b> , 579, 359-363	50.4	212
1359	Tunable correlated states and spin-polarized phases in twisted bilayer-bilayer graphene. <i>Nature</i> , <b>2020</b> , 583, 215-220	50.4	209
1358	Correlated electronic phases in twisted bilayer transition metal dichalcogenides. <i>Nature Materials</i> , <b>2020</b> , 19, 861-866	27	197
1357	Simulation of Hubbard model physics in WSe/WS moiré superlattices. <i>Nature</i> , <b>2020</b> , 579, 353-358	50.4	195
1356	Correlated states in twisted double bilayer graphene. <i>Nature Physics</i> , <b>2020</b> , 16, 520-525	16.2	194
1355	Switching 2D magnetic states via pressure tuning of layer stacking. <i>Nature Materials</i> , <b>2019</b> , 18, 1298-1302	27	194

1354	Interlayer Exciton Optoelectronics in a 2D Heterostructure p-n Junction. <i>Nano Letters</i> , <b>2017</b> , 17, 638-643	11.5	193
1353	Tunable spin-polarized correlated states in twisted double bilayer graphene. <i>Nature</i> , <b>2020</b> , 583, 221-225	50.4	191
1352	Ballistic Transport Exceeding 28 $\mu\text{m}$ in CVD Grown Graphene. <i>Nano Letters</i> , <b>2016</b> , 16, 1387-91	11.5	191
1351	Widely tunable black phosphorus mid-infrared photodetector. <i>Nature Communications</i> , <b>2017</b> , 8, 1672	17.4	191
1350	Probing dark excitons in atomically thin semiconductors via near-field coupling to surface plasmon polaritons. <i>Nature Nanotechnology</i> , <b>2017</b> , 12, 856-860	28.7	191
1349	Tuning quantum nonlocal effects in graphene plasmonics. <i>Science</i> , <b>2017</b> , 357, 187-191	33.3	189
1348	Electron optics with p-n junctions in ballistic graphene. <i>Science</i> , <b>2016</b> , 353, 1522-1525	33.3	189
1347	Tunable symmetry breaking and helical edge transport in a graphene quantum spin Hall state. <i>Nature</i> , <b>2014</b> , 505, 528-32	50.4	188
1346	Ballistic Majorana nanowire devices. <i>Nature Nanotechnology</i> , <b>2018</b> , 13, 192-197	28.7	185
1345	WSe <sub>2</sub> Light-Emitting Tunneling Transistors with Enhanced Brightness at Room Temperature. <i>Nano Letters</i> , <b>2015</b> , 15, 8223-8	11.5	183
1344	Revealed architectures of adsorbed polymer chains at solid-polymer melt interfaces. <i>Physical Review Letters</i> , <b>2012</b> , 109, 265501	7.4	183
1343	Quantum Hall effect and Landau-level crossing of Dirac fermions in trilayer graphene. <i>Nature Physics</i> , <b>2011</b> , 7, 621-625	16.2	182
1342	High-Mobility Holes in Dual-Gated WSe <sub>2</sub> Field-Effect Transistors. <i>ACS Nano</i> , <b>2015</b> , 9, 10402-10	16.7	180
1341	Pressure-controlled interlayer magnetism in atomically thin CrI <sub>3</sub> . <i>Nature Materials</i> , <b>2019</b> , 18, 1303-1308	27	178
1340	Acoustic terahertz graphene plasmons revealed by photocurrent nanoscopy. <i>Nature Nanotechnology</i> , <b>2017</b> , 12, 31-35	28.7	178
1339	In-Plane Propagation of Light in Transition Metal Dichalcogenide Monolayers: Optical Selection Rules. <i>Physical Review Letters</i> , <b>2017</b> , 119, 047401	7.4	176
1338	Atomically thin quantum light-emitting diodes. <i>Nature Communications</i> , <b>2016</b> , 7, 12978	17.4	174
1337	Superballistic flow of viscous electron fluid through graphene constrictions. <i>Nature Physics</i> , <b>2017</b> , 13, 1182-1185	16.2	172

1336	Gate tunable quantum oscillations in air-stable and high mobility few-layer phosphorene heterostructures. <i>2D Materials</i> , <b>2015</b> , 2, 011001	5.9	172
1335	Tunneling Spin Valves Based on FeGeTe/hBN/FeGeTe van der Waals Heterostructures. <i>Nano Letters</i> , <b>2018</b> , 18, 4303-4308	11.5	167
1334	Electrically tunable low-density superconductivity in a monolayer topological insulator. <i>Science</i> , <b>2018</b> , 362, 926-929	33.3	167
1333	Spin Lifetimes Exceeding 12 ns in Graphene Nonlocal Spin Valve Devices. <i>Nano Letters</i> , <b>2016</b> , 16, 3533-9	11.5	165
1332	Electron Doping of Ultrathin Black Phosphorus with Cu Adatoms. <i>Nano Letters</i> , <b>2016</b> , 16, 2145-51	11.5	165
1331	Low-Temperature Ohmic Contact to Monolayer MoS by van der Waals Bonded Co/h-BN Electrodes. <i>Nano Letters</i> , <b>2017</b> , 17, 4781-4786	11.5	164
1330	Photonic crystals for nano-light in moiré-graphene superlattices. <i>Science</i> , <b>2018</b> , 362, 1153-1156	33.3	164
1329	Evidence of high-temperature exciton condensation in two-dimensional atomic double layers. <i>Nature</i> , <b>2019</b> , 574, 76-80	50.4	162
1328	Observation of ultralong valley lifetime in WSe/MoS heterostructures. <i>Science Advances</i> , <b>2017</b> , 3, e1700518	11.5	160
1327	Observation of the nonlinear Hall effect under time-reversal-symmetric conditions. <i>Nature</i> , <b>2019</b> , 565, 337-342	50.4	159
1326	Valley Manipulation by Optically Tuning the Magnetic Proximity Effect in WSe/CrI Heterostructures. <i>Nano Letters</i> , <b>2018</b> , 18, 3823-3828	11.5	159
1325	Shape deformation of ternary vesicles coupled with phase separation. <i>Physical Review Letters</i> , <b>2008</b> , 100, 148102	7.4	157
1324	Dynamic band-structure tuning of graphene moiré-superlattices with pressure. <i>Nature</i> , <b>2018</b> , 557, 404-408	50.4	154
1323	Direct Growth of Single- and Few-Layer MoS <sub>2</sub> on h-BN with Preferred Relative Rotation Angles. <i>Nano Letters</i> , <b>2015</b> , 15, 6324-31	11.5	152
1322	Cleaning interfaces in layered materials heterostructures. <i>Nature Communications</i> , <b>2018</b> , 9, 5387	17.4	152
1321	Ballistic Josephson junctions in edge-contacted graphene. <i>Nature Nanotechnology</i> , <b>2015</b> , 10, 761-4	28.7	151
1320	Characterization and manipulation of individual defects in insulating hexagonal boron nitride using scanning tunnelling microscopy. <i>Nature Nanotechnology</i> , <b>2015</b> , 10, 949-53	28.7	148
1319	Quantum oscillations of the critical current and high-field superconducting proximity in ballistic graphene. <i>Nature Physics</i> , <b>2016</b> , 12, 318-322	16.2	144



1318	Experimental implementation of assisted quantum adiabatic passage in a single spin. <i>Physical Review Letters</i> , <b>2013</b> , 110, 240501	7.4	144
1317	High thermal conductivity of high-quality monolayer boron nitride and its thermal expansion. <i>Science Advances</i> , <b>2019</b> , 5, eaav0129	14.3	143
1316	Electrically switchable Berry curvature dipole in the monolayer topological insulator WTe <sub>2</sub> . <i>Nature Physics</i> , <b>2018</b> , 14, 900-906	16.2	143
1315	Tin-Vacancy Quantum Emitters in Diamond. <i>Physical Review Letters</i> , <b>2017</b> , 119, 253601	7.4	138
1314	Hierarchy of Hofstadter states and replica quantum Hall ferromagnetism in graphene superlattices. <i>Nature Physics</i> , <b>2014</b> , 10, 525-529	16.2	137
1313	Charged excitons in monolayer WSe <sub>2</sub> : Experiment and theory. <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	137
1312	Gate-tunable resonant tunneling in double bilayer graphene heterostructures. <i>Nano Letters</i> , <b>2015</b> , 15, 428-33	11.5	136
1311	Untying the insulating and superconducting orders in magic-angle graphene. <i>Nature</i> , <b>2020</b> , 583, 375-378	50.4	136
1310	Ballistic superconductivity in semiconductor nanowires. <i>Nature Communications</i> , <b>2017</b> , 8, 16025	17.4	136
1309	Excitonic luminescence upconversion in a two-dimensional semiconductor. <i>Nature Physics</i> , <b>2016</b> , 12, 323-327	16.2	135
1308	Electrical control of interlayer exciton dynamics in atomically thin heterostructures. <i>Science</i> , <b>2019</b> , 366, 870-875	33.3	135
1307	Polarization switching and electrical control of interlayer excitons in two-dimensional van der Waals heterostructures. <i>Nature Photonics</i> , <b>2019</b> , 13, 131-136	33.9	134
1306	Physics. Creating and probing electron whispering-gallery modes in graphene. <i>Science</i> , <b>2015</b> , 348, 672-5	33.3	133
1305	Strange Metal in Magic-Angle Graphene with near Planckian Dissipation. <i>Physical Review Letters</i> , <b>2020</b> , 124, 076801	7.4	133
1304	Imaging electrostatically confined Dirac fermions in graphene quantum dots. <i>Nature Physics</i> , <b>2016</b> , 12, 1032-1036	16.2	131
1303	Cascade of phase transitions and Dirac revivals in magic-angle graphene. <i>Nature</i> , <b>2020</b> , 582, 203-208	50.4	130
1302	Photo-thermionic effect in vertical graphene heterostructures. <i>Nature Communications</i> , <b>2016</b> , 7, 12174	17.4	130
1301	Growth and Optical Properties of High-Quality Monolayer WS <sub>2</sub> on Graphite. <i>ACS Nano</i> , <b>2015</b> , 9, 4056-63	16.7	129

- 1300 Autonomous robotic searching and assembly of two-dimensional crystals to build van der Waals superlattices. *Nature Communications*, **2018**, 9, 1413 17.4 129
- 1299 Interlayer electron-phonon coupling in WSe<sub>2</sub>/hBN heterostructures. *Nature Physics*, **2017**, 13, 127-131 16.2 129
- 1298 Resonant terahertz detection using graphene plasmons. *Nature Communications*, **2018**, 9, 5392 17.4 129
- 1297 Large linear-in-temperature resistivity in twisted bilayer graphene. *Nature Physics*, **2019**, 15, 1011-1016 16.2 127
- 1296 Nanosecond spin lifetimes in single- and few-layer graphene-hBN heterostructures at room temperature. *Nano Letters*, **2014**, 14, 6050-5 11.5 127
- 1295 Heterointerface effects in the electrointercalation of van der Waals heterostructures. *Nature*, **2018**, 558, 425-429 50.4 125
- 1294 Dielectric disorder in two-dimensional materials. *Nature Nanotechnology*, **2019**, 14, 832-837 28.7 125
- 1293 Tunable strongly coupled superconductivity in magic-angle twisted trilayer graphene. *Nature*, **2021**, 590, 249-255 50.4 125
- 1292 Independent superconductors and correlated insulators in twisted bilayer graphene. *Nature Physics*, **2020**, 16, 926-930 16.2 124
- 1291 Tuning Ising superconductivity with layer and spin-orbit coupling in two-dimensional transition-metal dichalcogenides. *Nature Communications*, **2018**, 9, 1427 17.4 124
- 1290 Electrically tunable transverse magnetic focusing in graphene. *Nature Physics*, **2013**, 9, 225-229 16.2 123
- 1289 Tunable Electrical and Optical Characteristics in Monolayer Graphene and Few-Layer MoS<sub>2</sub> Heterostructure Devices. *Nano Letters*, **2015**, 15, 5017-24 11.5 122
- 1288 Atomically Thin CrCl: An In-Plane Layered Antiferromagnetic Insulator. *Nano Letters*, **2019**, 19, 3993-3998 11.5 120
- 1287 Layer-by-layer dielectric breakdown of hexagonal boron nitride. *ACS Nano*, **2015**, 9, 916-21 16.7 120
- 1286 Cascade of electronic transitions in magic-angle twisted bilayer graphene. *Nature*, **2020**, 582, 198-202 50.4 119
- 1285 Mechanical cleaning of graphene. *Applied Physics Letters*, **2012**, 100, 073110 3.4 119
- 1284 Mapping the twist-angle disorder and Landau levels in magic-angle graphene. *Nature*, **2020**, 581, 47-52 50.4 118
- 1283 Shubnikov-de Haas Oscillations of High-Mobility Holes in Monolayer and Bilayer WSe<sub>2</sub>: Landau Level Degeneracy, Effective Mass, and Negative Compressibility. *Physical Review Letters*, **2016**, 116, 086601 70.4 118

1282	Large Excitonic Reflectivity of Monolayer MoSe <sub>2</sub> Encapsulated in Hexagonal Boron Nitride. <i>Physical Review Letters</i> , <b>2018</b> , 120, 037402	7.4	117
1281	Supercurrent in the quantum Hall regime. <i>Science</i> , <b>2016</b> , 352, 966-9	33.3	116
1280	Evidence for a spin phase transition at charge neutrality in bilayer graphene. <i>Nature Physics</i> , <b>2013</b> , 9, 154-158	16.2	115
1279	Strongly correlated electrons and hybrid excitons in a moiré heterostructure. <i>Nature</i> , <b>2020</b> , 580, 472-477	50.4	113
1278	Electrical control of charged carriers and excitons in atomically thin materials. <i>Nature Nanotechnology</i> , <b>2018</b> , 13, 128-132	28.7	113
1277	Topologically Protected Helical States in Minimally Twisted Bilayer Graphene. <i>Physical Review Letters</i> , <b>2018</b> , 121, 037702	7.4	113
1276	Bilayer graphene. Tunable fractional quantum Hall phases in bilayer graphene. <i>Science</i> , <b>2014</b> , 345, 61-4	33.3	113
1275	Charge-tuneable biexciton complexes in monolayer WSe. <i>Nature Communications</i> , <b>2018</b> , 9, 3721	17.4	113
1274	Electronic compressibility of layer-polarized bilayer graphene. <i>Physical Review B</i> , <b>2012</b> , 85,	3.3	112
1273	Correlated Insulating States in Twisted Double Bilayer Graphene. <i>Physical Review Letters</i> , <b>2019</b> , 123, 197702	7.4	110
1272	Tunable interacting composite fermion phases in a half-filled bilayer-graphene Landau level. <i>Nature</i> , <b>2017</b> , 549, 360-364	50.4	110
1271	On the Quantum Spin Hall Gap of Monolayer 1T'-WTe <sub>2</sub> . <i>Advanced Materials</i> , <b>2016</b> , 28, 4845-51	24	110
1270	Enhanced Thermoelectric Power in Graphene: Violation of the Mott Relation by Inelastic Scattering. <i>Physical Review Letters</i> , <b>2016</b> , 116, 136802	7.4	109
1269	Specular interband Andreev reflections at van der Waals interfaces between graphene and NbSe <sub>2</sub> . <i>Nature Physics</i> , <b>2016</b> , 12, 328-332	16.2	108
1268	Evidence for a fractional fractal quantum Hall effect in graphene superlattices. <i>Science</i> , <b>2015</b> , 350, 1231-4	33.3	107
1267	Quantum Hall effect, screening, and layer-polarized insulating states in twisted bilayer graphene. <i>Physical Review Letters</i> , <b>2012</b> , 108, 076601	7.4	107
1266	Dielectric screening in atomically thin boron nitride nanosheets. <i>Nano Letters</i> , <b>2015</b> , 15, 218-23	11.5	106
1265	Revealing the biexciton and trion-exciton complexes in BN encapsulated WSe. <i>Nature Communications</i> , <b>2018</b> , 9, 3719	17.4	105

1264	Raman signature and phonon dispersion of atomically thin boron nitride. <i>Nanoscale</i> , <b>2017</b> , 9, 3059-3067	7.7	104
1263	Antenna-coupled photon emission from hexagonal boron nitride tunnel junctions. <i>Nature Nanotechnology</i> , <b>2015</b> , 10, 1058-63	28.7	104
1262	Thermoelectric detection and imaging of propagating graphene plasmons. <i>Nature Materials</i> , <b>2017</b> , 16, 204-207	27	104
1261	Thermally Induced Graphene Rotation on Hexagonal Boron Nitride. <i>Physical Review Letters</i> , <b>2016</b> , 116, 126101	7.4	103
1260	Epitaxial growth of molecular crystals on van der Waals substrates for high-performance organic electronics. <i>Advanced Materials</i> , <b>2014</b> , 26, 2812-7	24	103
1259	Quantum Hall drag of exciton condensate in graphene. <i>Nature Physics</i> , <b>2017</b> , 13, 746-750	16.2	101
1258	Biaxial compressive strain engineering in graphene/boron nitride heterostructures. <i>Scientific Reports</i> , <b>2012</b> , 2, 893	4.9	101
1257	Superconductivity in metallic twisted bilayer graphene stabilized by WSe. <i>Nature</i> , <b>2020</b> , 583, 379-384	50.4	101
1256	Waveguide-integrated van der Waals heterostructure photodetector at telecom wavelengths with high speed and high responsivity. <i>Nature Nanotechnology</i> , <b>2020</b> , 15, 118-124	28.7	100
1255	Imaging of pure spin-valley diffusion current in WS-WSe heterostructures. <i>Science</i> , <b>2018</b> , 360, 893-896	33.3	100
1254	Fine structure and lifetime of dark excitons in transition metal dichalcogenide monolayers. <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	98
1253	Electronic transport of encapsulated graphene and WSe <sub>2</sub> devices fabricated by pick-up of prepatterned hBN. <i>Nano Letters</i> , <b>2015</b> , 15, 1898-903	11.5	98
1252	Enabling valley selective exciton scattering in monolayer WSe through upconversion. <i>Nature Communications</i> , <b>2017</b> , 8, 14927	17.4	97
1251	Revealing exciton masses and dielectric properties of monolayer semiconductors with high magnetic fields. <i>Nature Communications</i> , <b>2019</b> , 10, 4172	17.4	97
1250	Measuring Hall viscosity of graphene's electron fluid. <i>Science</i> , <b>2019</b> , 364, 162-165	33.3	97
1249	Bilayer graphene. Chemical potential and quantum Hall ferromagnetism in bilayer graphene. <i>Science</i> , <b>2014</b> , 345, 58-61	33.3	97
1248	Tuning ultrafast electron thermalization pathways in a van der Waals heterostructure. <i>Nature Physics</i> , <b>2016</b> , 12, 455-459	16.2	96
1247	Quantum Emission from Defects in Single-Crystalline Hexagonal Boron Nitride. <i>Physical Review Applied</i> , <b>2016</b> , 5,	4.3	95

1246	Single Defect Light-Emitting Diode in a van der Waals Heterostructure. <i>Nano Letters</i> , <b>2016</b> , 16, 3944-8	11.5	95
1245	Effective cleaning of hexagonal boron nitride for graphene devices. <i>Nano Letters</i> , <b>2012</b> , 12, 4449-54	11.5	92
1244	Gate-tunable black phosphorus spin valve with nanosecond spin lifetimes. <i>Nature Physics</i> , <b>2017</b> , 13, 888-893	33.3	91
1243	Transferred via contacts as a platform for ideal two-dimensional transistors. <i>Nature Electronics</i> , <b>2019</b> , 2, 187-194	28.4	90
1242	Observation of a Luttinger-liquid plasmon in metallic single-walled carbon nanotubes. <i>Nature Photonics</i> , <b>2015</b> , 9, 515-519	33.9	90
1241	Ultrahigh thermal conductivity in isotope-enriched cubic boron nitride. <i>Science</i> , <b>2020</b> , 367, 555-559	33.3	90
1240	Tunable excitons in bilayer graphene. <i>Science</i> , <b>2017</b> , 358, 907-910	33.3	89
1239	Photonic crystal cavities from hexagonal boron nitride. <i>Nature Communications</i> , <b>2018</b> , 9, 2623	17.4	89
1238	Visualization of moiré superlattices. <i>Nature Nanotechnology</i> , <b>2020</b> , 15, 580-584	28.7	88
1237	Strain-Modulated Bandgap and Piezo-Resistive Effect in Black Phosphorus Field-Effect Transistors. <i>Nano Letters</i> , <b>2017</b> , 17, 6097-6103	11.5	88
1236	Gate-defined confinement in bilayer graphene-hexagonal boron nitride hybrid devices. <i>Nano Letters</i> , <b>2012</b> , 12, 4656-60	11.5	88
1235	Flat bands in twisted bilayer transition metal dichalcogenides. <i>Nature Physics</i> , <b>2020</b> , 16, 1093-1096	16.2	87
1234	Air-Stable Room-Temperature Mid-Infrared Photodetectors Based on hBN/Black Arsenic Phosphorus/hBN Heterostructures. <i>Nano Letters</i> , <b>2018</b> , 18, 3172-3179	11.5	87
1233	Out-of-plane heat transfer in van der Waals stacks through electron-hyperbolic phonon coupling. <i>Nature Nanotechnology</i> , <b>2018</b> , 13, 41-46	28.7	87
1232	Realization of a tunable artificial atom at a supercritically charged vacancy in graphene. <i>Nature Physics</i> , <b>2016</b> , 12, 545-549	16.2	87
1231	Band structure engineering of 2D materials using patterned dielectric superlattices. <i>Nature Nanotechnology</i> , <b>2018</b> , 13, 566-571	28.7	87
1230	Imaging of Anomalous Internal Reflections of Hyperbolic Phonon-Polaritons in Hexagonal Boron Nitride. <i>Nano Letters</i> , <b>2016</b> , 16, 3858-65	11.5	87
1229	Ballistic miniband conduction in a graphene superlattice. <i>Science</i> , <b>2016</b> , 353, 1526-1529	33.3	87

1228	Macroscopic self-reorientation of interacting two-dimensional crystals. <i>Nature Communications</i> , <b>2016</b> , 7, 10800	17.4	86
1227	Local spectroscopy of moiré-induced electronic structure in gate-tunable twisted bilayer graphene. <i>Physical Review B</i> , <b>2015</b> , 92,	33.3	86
1226	Excitonic superfluid phase in double bilayer graphene. <i>Nature Physics</i> , <b>2017</b> , 13, 751-755	16.2	85
1225	Fully dry PMMA transfer of graphene on h-BN using a heating/cooling system. <i>2D Materials</i> , <b>2015</b> , 2, 041002	5.9	85
1224	Ultrasoft slip-mediated bending in few-layer graphene. <i>Nature Materials</i> , <b>2020</b> , 19, 305-309	27	85
1223	Direct exciton emission from atomically thin transition metal dichalcogenide heterostructures near the lifetime limit. <i>Scientific Reports</i> , <b>2017</b> , 7, 12383	4.9	84
1222	Observation of fractional Chern insulators in a van der Waals heterostructure. <i>Science</i> , <b>2018</b> , 360, 62-66	33.3	84
1221	Pressure-induced commensurate stacking of graphene on boron nitride. <i>Nature Communications</i> , <b>2016</b> , 7, 13168	17.4	84
1220	Coulomb-bound four- and five-particle intervalley states in an atomically-thin semiconductor. <i>Nature Communications</i> , <b>2018</b> , 9, 3717	17.4	84
1219	Spatially resolved edge currents and guided-wave electronic states in graphene. <i>Nature Physics</i> , <b>2016</b> , 12, 128-133	16.2	83
1218	Fast and Sensitive Terahertz Detection Using an Antenna-Integrated Graphene pn Junction. <i>Nano Letters</i> , <b>2019</b> , 19, 2765-2773	11.5	82
1217	Correlated insulating states at fractional fillings of moiré superlattices. <i>Nature</i> , <b>2020</b> , 587, 214-218	50.4	82
1216	Strongly correlated Chern insulators in magic-angle twisted bilayer graphene. <i>Nature</i> , <b>2020</b> , 588, 610-615	50.4	81
1215	Reconfigurable logic and neuromorphic circuits based on electrically tunable two-dimensional homojunctions. <i>Nature Electronics</i> , <b>2020</b> , 3, 383-390	28.4	81
1214	Ultraviolet luminescence spectra of boron nitride single crystals grown under high pressure and high temperature. <i>Physica Status Solidi A</i> , <b>2004</b> , 201, 2561-2565		81
1213	Néel-type skyrmion in WTe <sub>2</sub> /FeGeTe van der Waals heterostructure. <i>Nature Communications</i> , <b>2020</b> , 11, 3860	17.4	81
1212	Visualizing Strain-Induced Pseudomagnetic Fields in Graphene through an hBN Magnifying Glass. <i>Nano Letters</i> , <b>2017</b> , 17, 2839-2843	11.5	80
1211	An on/off Berry phase switch in circular graphene resonators. <i>Science</i> , <b>2017</b> , 356, 845-849	33.3	80

1210	Voltage Control of a van der Waals Spin-Filter Magnetic Tunnel Junction. <i>Nano Letters</i> , <b>2019</b> , 19, 915-920	11.5	80
1209	Site-selectively generated photon emitters in monolayer MoS via local helium ion irradiation. <i>Nature Communications</i> , <b>2019</b> , 10, 2755	17.4	80
1208	High thermoelectric power factor in graphene/hBN devices. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 14272-14276	11.5	80
1207	Self-selective van der Waals heterostructures for large scale memory array. <i>Nature Communications</i> , <b>2019</b> , 10, 3161	17.4	80
1206	Directional interlayer spin-valley transfer in two-dimensional heterostructures. <i>Nature Communications</i> , <b>2016</b> , 7, 13747	17.4	80
1205	Efficient generation of neutral and charged biexcitons in encapsulated WSe monolayers. <i>Nature Communications</i> , <b>2018</b> , 9, 3718	17.4	80
1204	Raman Spectroscopy, Photocatalytic Degradation, and Stabilization of Atomically Thin Chromium Tri-iodide. <i>Nano Letters</i> , <b>2018</b> , 18, 4214-4219	11.5	79
1203	Large spin relaxation anisotropy and valley-Zeeman spin-orbit coupling in WSe <sub>2</sub> /graphene/h-BN heterostructures. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	78
1202	Inducing superconducting correlation in quantum Hall edge states. <i>Nature Physics</i> , <b>2017</b> , 13, 693-698	16.2	77
1201	Transport properties of ultrathin black phosphorus on hexagonal boron nitride. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 083505	3.4	77
1200	Random Strain Fluctuations as Dominant Disorder Source for High-Quality On-Substrate Graphene Devices. <i>Physical Review X</i> , <b>2014</b> , 4,	9.1	77
1199	Exciton diffusion in WSe <sub>2</sub> monolayers embedded in a van der Waals heterostructure. <i>Applied Physics Letters</i> , <b>2018</b> , 112, 152106	3.4	76
1198	Dissociation of two-dimensional excitons in monolayer WSe. <i>Nature Communications</i> , <b>2018</b> , 9, 1633	17.4	76
1197	Direct observation of dopant atom diffusion in a bulk semiconductor crystal enhanced by a large size mismatch. <i>Physical Review Letters</i> , <b>2014</b> , 113, 155501	7.4	76
1196	Stacking-engineered ferroelectricity in bilayer boron nitride. <i>Science</i> , <b>2021</b> , 372,	33.3	76
1195	Correlated insulating and superconducting states in twisted bilayer graphene below the magic angle. <i>Science Advances</i> , <b>2019</b> , 5, eaaw9770	14.3	75
1194	Ultrafast Graphene Light Emitters. <i>Nano Letters</i> , <b>2018</b> , 18, 934-940	11.5	75
1193	Coherent control of a hybrid superconducting circuit made with graphene-based van der Waals heterostructures. <i>Nature Nanotechnology</i> , <b>2019</b> , 14, 120-125	28.7	75



1192	Magnetic resonance spectroscopy of an atomically thin material using a single-spin qubit. <i>Science</i> , <b>2017</b> , 355, 503-507	33.3	74
1191	Thickness-controlled black phosphorus tunnel field-effect transistor for low-power switches. <i>Nature Nanotechnology</i> , <b>2020</b> , 15, 203-206	28.7	73
1190	Bilayer graphene. Electron-hole asymmetric integer and fractional quantum Hall effect in bilayer graphene. <i>Science</i> , <b>2014</b> , 345, 55-7	33.3	73
1189	Renormalization of the graphene dispersion velocity determined from scanning tunneling spectroscopy. <i>Physical Review Letters</i> , <b>2012</b> , 109, 116802	7.4	73
1188	Electric field-tunable superconductivity in alternating-twist magic-angle trilayer graphene. <i>Science</i> , <b>2021</b> , 371, 1133-1138	33.3	73
1187	Patterning metal contacts on monolayer MoS <sub>2</sub> with vanishing Schottky barriers using thermal nanolithography. <i>Nature Electronics</i> , <b>2019</b> , 2, 17-25	28.4	73
1186	Nearly room temperature ferromagnetism in a magnetic metal-rich van der Waals metal. <i>Science Advances</i> , <b>2020</b> , 6, eaay8912	14.3	72
1185	Reconfigurable Complementary Monolayer MoTe Field-Effect Transistors for Integrated Circuits. <i>ACS Nano</i> , <b>2017</b> , 11, 4832-4839	16.7	71
1184	Electric field control of soliton motion and stacking in trilayer graphene. <i>Nature Materials</i> , <b>2014</b> , 13, 786-797	27	71
1183	Strong electron-hole symmetric Rashba spin-orbit coupling in graphene/monolayer transition metal dichalcogenide heterostructures. <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	71
1182	Conductance Quantization at Zero Magnetic Field in InSb Nanowires. <i>Nano Letters</i> , <b>2016</b> , 16, 3482-6	11.5	71
1181	High-Mobility, Wet-Transferred Graphene Grown by Chemical Vapor Deposition. <i>ACS Nano</i> , <b>2019</b> , 13, 8926-8935	16.7	70
1180	Imaging viscous flow of the Dirac fluid in graphene. <i>Nature</i> , <b>2020</b> , 583, 537-541	50.4	69
1179	Charge Inversion and Topological Phase Transition at a Twist Angle Induced van Hove Singularity of Bilayer Graphene. <i>Nano Letters</i> , <b>2016</b> , 16, 5053-9	11.5	69
1178	Symmetry breaking in twisted double bilayer graphene. <i>Nature Physics</i> , <b>2021</b> , 17, 26-30	16.2	69
1177	Electronic Compressibility of Magic-Angle Graphene Superlattices. <i>Physical Review Letters</i> , <b>2019</b> , 123, 046601	7.4	68
1176	Transport Through a Network of Topological Channels in Twisted Bilayer Graphene. <i>Nano Letters</i> , <b>2018</b> , 18, 6725-6730	11.5	68
1175	Direct and Indirect Interlayer Excitons in a van der Waals Heterostructure of hBN/WS <sub>2</sub> /MoS <sub>2</sub> /hBN. <i>ACS Nano</i> , <b>2018</b> , 12, 2498-2505	16.7	67



1174	Synthesis of Crystalline Black Phosphorus Thin Film on Sapphire. <i>Advanced Materials</i> , <b>2018</b> , 30, 1703748	24	67
1173	A Fermi-Level-Pinning-Free 1D Electrical Contact at the Intrinsic 2D MoS <sub>2</sub> -Metal Junction. <i>Advanced Materials</i> , <b>2019</b> , 31, e1808231	24	66
1172	Gate-tunable van der Waals heterostructure for reconfigurable neural network vision sensor. <i>Science Advances</i> , <b>2020</b> , 6, eaba6173	14.3	66
1171	Layer-resolved magnetic proximity effect in van der Waals heterostructures. <i>Nature Nanotechnology</i> , <b>2020</b> , 15, 187-191	28.7	66
1170	Tuning charge and correlation effects for a single molecule on a graphene device. <i>Nature Communications</i> , <b>2016</b> , 7, 13553	17.4	66
1169	Conductance oscillations induced by ballistic snake states in a graphene heterojunction. <i>Nature Communications</i> , <b>2015</b> , 6, 6093	17.4	66
1168	Observation of exciton-phonon coupling in MoSe <sub>2</sub> monolayers. <i>Physical Review B</i> , <b>2018</b> , 98,	3.3	65
1167	MoS <sub>2</sub> /MoS <sub>2</sub> : choice substrate for accessing and tuning the electronic properties of graphene. <i>Physical Review Letters</i> , <b>2014</b> , 113, 156804	7.4	65
1166	Viscoelastic effects in early stage phase separation in polymeric systems. <i>Journal of Chemical Physics</i> , <b>1997</b> , 106, 5761-5770	3.9	65
1165	Thermal Conductance of the 2D MoS <sub>2</sub> /h-BN and graphene/h-BN Interfaces. <i>Scientific Reports</i> , <b>2017</b> , 7, 43886	4.9	64
1164	Design of van der Waals interfaces for broad-spectrum optoelectronics. <i>Nature Materials</i> , <b>2020</b> , 19, 299-304	30.4	64
1163	Near-field photocurrent nanoscopy on bare and encapsulated graphene. <i>Nature Communications</i> , <b>2016</b> , 7, 10783	17.4	64
1162	Tunneling spectroscopy of graphene-boron-nitride heterostructures. <i>Physical Review B</i> , <b>2012</b> , 85,	3.3	64
1161	Electrically tunable correlated and topological states in twisted monolayer/bilayer graphene. <i>Nature Physics</i> , <b>2021</b> , 17, 374-380	16.2	64
1160	Unusual Exciton-Phonon Interactions at van der Waals Engineered Interfaces. <i>Nano Letters</i> , <b>2017</b> , 17, 1194-1199	11.5	63
1159	A high-mobility electronic system at an electrolyte-gated oxide surface. <i>Nature Communications</i> , <b>2015</b> , 6, 6437	17.4	63
1158	Intralayer and interlayer electron-phonon interactions in twisted graphene heterostructures. <i>Nature Communications</i> , <b>2018</b> , 9, 1221	17.4	63
1157	Valley-polarized exciton currents in a van der Waals heterostructure. <i>Nature Nanotechnology</i> , <b>2019</b> , 14, 1104-1109	28.7	63

1156	Fabry-Pérot interference in gapped bilayer graphene with broken anti-Klein tunneling. <i>Physical Review Letters</i> , <b>2014</b> , 113, 116601	7.4	63
1155	Stable Graphene-Two-Dimensional Multiphase Perovskite Heterostructure Phototransistors with High Gain. <i>Nano Letters</i> , <b>2017</b> , 17, 7330-7338	11.5	63
1154	Electrical switching of magnetic order in an orbital Chern insulator. <i>Nature</i> , <b>2020</b> , 588, 66-70	50.4	63
1153	Evidence for Defect-Mediated Tunneling in Hexagonal Boron Nitride-Based Junctions. <i>Nano Letters</i> , <b>2015</b> , 15, 7329-33	11.5	62
1152	Supramolecular heterostructures formed by sequential epitaxial deposition of two-dimensional hydrogen-bonded arrays. <i>Nature Chemistry</i> , <b>2017</b> , 9, 1191-1197	17.6	62
1151	Even-denominator fractional quantum Hall states at an isospin transition in monolayer graphene. <i>Nature Physics</i> , <b>2018</b> , 14, 930-935	16.2	62
1150	Spin-orbit-driven band inversion in bilayer graphene by the van der Waals proximity effect. <i>Nature</i> , <b>2019</b> , 571, 85-89	50.4	61
1149	Composite fermions and broken symmetries in graphene. <i>Nature Communications</i> , <b>2015</b> , 6, 5838	17.4	61
1148	Effects of deformation on band-edge luminescence of hexagonal boron nitride single crystals. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 141902	3.4	61
1147	Tunable crystal symmetry in graphene-boron nitride heterostructures with coexisting moiré superlattices. <i>Nature Nanotechnology</i> , <b>2019</b> , 14, 1029-1034	28.7	61
1146	Negative Coulomb Drag in Double Bilayer Graphene. <i>Physical Review Letters</i> , <b>2016</b> , 117, 046802	7.4	60
1145	Synthesis of rhenium nitride crystals with MoS <sub>2</sub> structure. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 251910	3.4	60
1144	Optical spectroscopy of excited exciton states in MoS <sub>2</sub> monolayers in van der Waals heterostructures. <i>Physical Review Materials</i> , <b>2018</b> , 2,	3.2	60
1143	Minimizing residues and strain in 2D materials transferred from PDMS. <i>Nanotechnology</i> , <b>2018</b> , 29, 265203	3.4	59
1142	Enhancing the response of NH <sub>3</sub> graphene-sensors by using devices with different graphene-substrate distances. <i>Sensors and Actuators B: Chemical</i> , <b>2018</b> , 266, 438-446	8.5	59
1141	Screening charged impurities and lifting the orbital degeneracy in graphene by populating Landau levels. <i>Physical Review Letters</i> , <b>2014</b> , 112, 036804	7.4	59
1140	Observation of the quantum valley Hall state in ballistic graphene superlattices. <i>Science Advances</i> , <b>2018</b> , 4, eaag0194	14.3	59
1139	Even-denominator fractional quantum Hall states in bilayer graphene. <i>Science</i> , <b>2017</b> , 358, 648-652	33.3	58

1138	Bright Mid-Infrared Photoluminescence from Thin-Film Black Phosphorus. <i>Nano Letters</i> , <b>2019</b> , 19, 1488-1493	14.9	58
1137	Electronic transport in graphene-based heterostructures. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 183504	3.4	58
1136	Selective equilibration of spin-polarized quantum Hall edge states in graphene. <i>Physical Review Letters</i> , <b>2014</b> , 112, 196601	7.4	58
1135	Suppression of exciton-exciton annihilation in tungsten disulfide monolayers encapsulated by hexagonal boron nitrides. <i>Physical Review B</i> , <b>2017</b> , 95,	3.3	58
1134	Boron Nitride Nanosheets Improve Sensitivity and Reusability of Surface-Enhanced Raman Spectroscopy. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 8405-9	16.4	58
1133	Emerging photoluminescence from the dark-exciton phonon replica in monolayer WSe. <i>Nature Communications</i> , <b>2019</b> , 10, 2469	17.4	57
1132	Persistence of Magnetism in Atomically Thin MnPS Crystals. <i>Nano Letters</i> , <b>2020</b> , 20, 2452-2459	11.5	57
1131	Electrostatically Induced Quantum Point Contacts in Bilayer Graphene. <i>Nano Letters</i> , <b>2018</b> , 18, 553-559	11.5	57
1130	Organic Field Effect Transistors Based on Graphene and Hexagonal Boron Nitride Heterostructures. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 5157-5163	15.6	57
1129	Efficiency of Launching Highly Confined Polaritons by Infrared Light Incident on a Hyperbolic Material. <i>Nano Letters</i> , <b>2017</b> , 17, 5285-5290	11.5	57
1128	Helical edge states and fractional quantum Hall effect in a graphene electron-hole bilayer. <i>Nature Nanotechnology</i> , <b>2017</b> , 12, 118-122	28.7	57
1127	Optical thickness determination of hexagonal boron nitride flakes. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 161906	3.4	57
1126	Imaging strain-localized excitons in nanoscale bubbles of monolayer WSe at room temperature. <i>Nature Nanotechnology</i> , <b>2020</b> , 15, 854-860	28.7	57
1125	A valley valve and electron beam splitter. <i>Science</i> , <b>2018</b> , 362, 1149-1152	33.3	57
1124	Ballistic Transport in Graphene Antidot Lattices. <i>Nano Letters</i> , <b>2015</b> , 15, 8402-6	11.5	56
1123	Unconventional ferroelectricity in moiré heterostructures. <i>Nature</i> , <b>2020</b> , 588, 71-76	50.4	56
1122	Size quantization of Dirac fermions in graphene constrictions. <i>Nature Communications</i> , <b>2016</b> , 7, 11528	17.4	56
1121	Visualizing Poiseuille flow of hydrodynamic electrons. <i>Nature</i> , <b>2019</b> , 576, 75-79	50.4	56

1120	Infrared Interlayer Exciton Emission in MoS <sub>2</sub> /WSe <sub>2</sub> Heterostructures. <i>Physical Review Letters</i> , <b>2019</b> , 123, 247402	7.4	56
1119	Chern insulators, van Hove singularities and topological flat bands in magic-angle twisted bilayer graphene. <i>Nature Materials</i> , <b>2021</b> , 20, 488-494	27	56
1118	Interactions and Magnetotransport through Spin-Valley Coupled Landau Levels in Monolayer MoS <sub>2</sub> . <i>Physical Review Letters</i> , <b>2018</b> , 121, 247701	7.4	56
1117	Edge currents shunt the insulating bulk in gapped graphene. <i>Nature Communications</i> , <b>2017</b> , 8, 14552	17.4	55
1116	Optospintronics in Graphene via Proximity Coupling. <i>ACS Nano</i> , <b>2017</b> , 11, 11678-11686	16.7	55
1115	Identification of spin, valley and moiré quasi-angular momentum of interlayer excitons. <i>Nature Physics</i> , <b>2019</b> , 15, 1140-1144	16.2	55
1114	Valley phonons and exciton complexes in a monolayer semiconductor. <i>Nature Communications</i> , <b>2020</b> , 11, 618	17.4	55
1113	Imaging Cyclotron Orbits of Electrons in Graphene. <i>Nano Letters</i> , <b>2016</b> , 16, 1690-4	11.5	55
1112	Hexagonal Boron Nitride as a New Ultraviolet Luminescent Material and Its Application. <i>International Journal of Applied Ceramic Technology</i> , <b>2011</b> , 8, 977-989	2	55
1111	Ultra-low power threshold for laser induced changes in optical properties of 2D molybdenum dichalcogenides. <i>2D Materials</i> , <b>2016</b> , 3, 045008	5.9	54
1110	Misfit accommodation mechanism at the heterointerface between diamond and cubic boron nitride. <i>Nature Communications</i> , <b>2015</b> , 6, 6327	17.4	54
1109	Tuning inelastic light scattering via symmetry control in the two-dimensional magnet CrI <sub>3</sub> . <i>Nature Nanotechnology</i> , <b>2020</b> , 15, 212-216	28.7	54
1108	Polariton nanophotonics using phase-change materials. <i>Nature Communications</i> , <b>2019</b> , 10, 4487	17.4	53
1107	MoS <sub>2</sub> photodetectors integrated with photonic circuits. <i>Npj 2D Materials and Applications</i> , <b>2019</b> , 3,	8.8	53
1106	A dielectric-defined lateral heterojunction in a monolayer semiconductor. <i>Nature Electronics</i> , <b>2019</b> , 2, 60-65	28.4	53
1105	Strongly Enhanced Tunneling at Total Charge Neutrality in Double-Bilayer Graphene-WSe <sub>2</sub> Heterostructures. <i>Physical Review Letters</i> , <b>2018</b> , 120, 177702	7.4	53
1104	Gate-dependent pseudospin mixing in graphene/boron nitride moiré superlattices. <i>Nature Physics</i> , <b>2014</b> , 10, 743-747	16.2	53
1103	Density-Dependent Quantum Hall States and Zeeman Splitting in Monolayer and Bilayer WSe <sub>2</sub> . <i>Physical Review Letters</i> , <b>2017</b> , 118, 247701	7.4	53

1102	Competing channels for hot-electron cooling in graphene. <i>Physical Review Letters</i> , <b>2014</b> , 112, 247401	7.4	53
1101	Exciton optical transitions in a hexagonal boron nitride single crystal. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2011</b> , 5, 214-216	2.5	53
1100	Evidence of flat bands and correlated states in buckled graphene superlattices. <i>Nature</i> , <b>2020</b> , 584, 215-220	30.4	53
1099	Bright Luminescence from Indirect and Strongly Bound Excitons in h-BN. <i>Physical Review Letters</i> , <b>2019</b> , 122, 067401	7.4	53
1098	The performance limits of hexagonal boron nitride as an insulator for scaled CMOS devices based on two-dimensional materials. <i>Nature Electronics</i> , <b>2021</b> , 4, 98-108	28.4	53
1097	Defect Control and n-Doping of Encapsulated Graphene by Helium-Ion-Beam Irradiation. <i>Nano Letters</i> , <b>2015</b> , 15, 4006-12	11.5	52
1096	Ballistic transport in graphene grown by chemical vapor deposition. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 023103	3.4	52
1095	Anomalous sequence of quantum Hall liquids revealing a tunable Lifshitz transition in bilayer graphene. <i>Physical Review Letters</i> , <b>2014</b> , 113, 116602	7.4	52
1094	Vibrational Properties of h-BN and h-BN-Graphene Heterostructures Probed by Inelastic Electron Tunneling Spectroscopy. <i>Scientific Reports</i> , <b>2015</b> , 5, 16642	4.9	52
1093	Spin and Valley States in Gate-Defined Bilayer Graphene Quantum Dots. <i>Physical Review X</i> , <b>2018</b> , 8,	9.1	51
1092	Highly energy-tunable quantum light from moiré-trapped excitons. <i>Science Advances</i> , <b>2020</b> , 6,	14.3	51
1091	Electrically Tunable Valley Dynamics in Twisted WSe <sub>2</sub> /WSe <sub>2</sub> Bilayers. <i>Physical Review Letters</i> , <b>2020</b> , 124, 217403	7.4	50
1090	Dielectric screening of the Kohn anomaly of graphene on hexagonal boron nitride. <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	50
1089	Tuning a circular p-n junction in graphene from quantum confinement to optical guiding. <i>Nature Nanotechnology</i> , <b>2017</b> , 12, 1045-1049	28.7	50
1088	Ballistic Graphene Josephson Junctions from the Short to the Long Junction Regimes. <i>Physical Review Letters</i> , <b>2016</b> , 117, 237002	7.4	50
1087	Experimental Identification of Critical Condition for Drastically Enhancing Thermoelectric Power Factor of Two-Dimensional Layered Materials. <i>Nano Letters</i> , <b>2018</b> , 18, 7538-7545	11.5	50
1086	Tunnelling spectroscopy of Andreev states in graphene. <i>Nature Physics</i> , <b>2017</b> , 13, 756-760	16.2	49
1085	Direct measurement of discrete valley and orbital quantum numbers in bilayer graphene. <i>Nature Communications</i> , <b>2017</b> , 8, 948	17.4	49

- 1084 New Generation of Moiré Superlattices in Doubly Aligned hBN/Graphene/hBN Heterostructures. *Nano Letters*, **2019**, 19, 2371-2376 11.5 49
- 1083 Control of the Exciton Radiative Lifetime in van der Waals Heterostructures. *Physical Review Letters*, **2019**, 123, 067401 7.4 49
- 1082 Gate Tunable Dark Trions in Monolayer WSe<sub>2</sub>. *Physical Review Letters*, **2019**, 123, 027401 7.4 49
- 1081 Compression behavior of densified SiO<sub>2</sub> glass. *Physical Review B*, **2011**, 84, 115407 3.3 49
- 1080 Spin-layer locking of interlayer excitons trapped in moiré potentials. *Nature Materials*, **2020**, 19, 630-636 27 49
- 1079 Nematicity and competing orders in superconducting magic-angle graphene. *Science*, **2021**, 372, 264-271 33.3 49
- 1078 Direct observation of two-dimensional magnons in atomically thin CrI<sub>3</sub>. *Nature Physics*, **2021**, 17, 20-25 16.2 49
- 1077 Large effective mass and interaction-enhanced Zeeman splitting of K-valley electrons in MoSe<sub>2</sub>. *Physical Review B*, **2018**, 97, 115407 3.3 49
- 1076 Interlayer excitons in bilayer MoS<sub>2</sub> with strong oscillator strength up to room temperature. *Physical Review B*, **2019**, 99, 115407 3.3 48
- 1075 Electroluminescence from multi-particle exciton complexes in transition metal dichalcogenide semiconductors. *Nature Communications*, **2019**, 10, 1709 17.4 48
- 1074 Zeeman Splitting and Inverted Polarization of Biexciton Emission in Monolayer WS<sub>2</sub>. *Physical Review Letters*, **2018**, 121, 057402 7.4 48
- 1073 Electrical 2π phase control of infrared light in a 350-nm footprint using graphene plasmons. *Nature Photonics*, **2017**, 11, 421-424 33.9 48
- 1072 Molecular Arrangement and Charge Transfer in C/Graphene Heterostructures. *ACS Nano*, **2017**, 11, 4686-4693 46.9 47
- 1071 Boron nitride nanosheets as improved and reusable substrates for gold nanoparticles enabled surface enhanced Raman spectroscopy. *Physical Chemistry Chemical Physics*, **2015**, 17, 7761-6 3.6 47
- 1070 Long-distance spin transport through a graphene quantum Hall antiferromagnet. *Nature Physics*, **2018**, 14, 907-911 16.2 47
- 1069 Tuning electron correlation in magic-angle twisted bilayer graphene using Coulomb screening. *Science*, **2021**, 371, 1261-1265 33.3 47
- 1068 Enhanced superconductivity upon weakening of charge density wave transport in 2H-TaS<sub>2</sub> in the two-dimensional limit. *Physical Review B*, **2018**, 98, 115407 3.3 46
- 1067 Bilayer Graphene-Hexagonal Boron Nitride Heterostructure Negative Differential Resistance Interlayer Tunnel FET. *IEEE Electron Device Letters*, **2015**, 36, 405-407 4.4 46

1066	Broken mirror symmetry in excitonic response of reconstructed domains in twisted MoSe/MoSe bilayers. <i>Nature Nanotechnology</i> , <b>2020</b> , 15, 750-754	28.7	46
1065	Interfacial ferroelectricity by van der Waals sliding. <i>Science</i> , <b>2021</b> , 372,	33.3	46
1064	Synthesis of ZnSnN <sub>2</sub> crystals via a high-pressure metathesis reaction. <i>Crystal Research and Technology</i> , <b>2016</b> , 51, 220-224	1.3	46
1063	Localization of lattice dynamics in low-angle twisted bilayer graphene. <i>Nature</i> , <b>2021</b> , 590, 405-409	50.4	46
1062	Graphene Photodetector Integrated on a Photonic Crystal Defect Waveguide. <i>ACS Photonics</i> , <b>2018</b> , 5, 4758-4763	6.3	46
1061	Nanoscale Mapping and Spectroscopy of Nonradiative Hyperbolic Modes in Hexagonal Boron Nitride Nanostructures. <i>Nano Letters</i> , <b>2018</b> , 18, 1628-1636	11.5	45
1060	Manipulation and Steering of Hyperbolic Surface Polaritons in Hexagonal Boron Nitride. <i>Advanced Materials</i> , <b>2018</b> , 30, e1706358	24	45
1059	Measurement of collective dynamical mass of Dirac fermions in graphene. <i>Nature Nanotechnology</i> , <b>2014</b> , 9, 594-9	28.7	45
1058	Pore formation in a binary giant vesicle induced by cone-shaped lipids. <i>Biophysical Journal</i> , <b>2010</b> , 99, 4722-4729	29	45
1057	Observation of flat bands in twisted bilayer graphene. <i>Nature Physics</i> , <b>2021</b> , 17, 189-193	16.2	45
1056	Exciton diffusion in monolayer semiconductors with suppressed disorder. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	44
1055	Gate-tunable quantum dot in a high quality single layer MoS <sub>2</sub> van der Waals heterostructure. <i>Applied Physics Letters</i> , <b>2018</b> , 112, 123101	3.4	44
1054	Quantum and classical confinement of resonant states in a trilayer graphene Fabry-Pérot interferometer. <i>Nature Communications</i> , <b>2012</b> , 3, 1239	17.4	44
1053	Lithographic band structure engineering of graphene. <i>Nature Nanotechnology</i> , <b>2019</b> , 14, 340-346	28.7	44
1052	Excitons in a reconstructed moiré potential in twisted WSe/WSe homobilayers. <i>Nature Materials</i> , <b>2021</b> , 20, 480-487	27	44
1051	Hofstadter subband ferromagnetism and symmetry-broken Chern insulators in twisted bilayer graphene. <i>Nature Physics</i> , <b>2021</b> , 17, 478-481	16.2	44
1050	Comparison of trapped charges and hysteresis behavior in hBN encapsulated single MoS flake based field effect transistors on SiO and hBN substrates. <i>Nanotechnology</i> , <b>2018</b> , 29, 335202	3.4	44
1049	Magnetoresistance and quantum oscillations of an electrostatically tuned semimetal-to-metal transition in ultrathin WTe <sub>2</sub> . <i>Physical Review B</i> , <b>2017</b> , 95,	3.3	43



1048	Quantum-critical conductivity of the Dirac fluid in graphene. <i>Science</i> , <b>2019</b> , 364, 158-162	33.3	43
1047	Valley-symmetry-preserved transport in ballistic graphene with gate-defined carrier guiding. <i>Nature Physics</i> , <b>2016</b> , 12, 1022-1026	16.2	43
1046	Determining the phase diagram of atomically thin layered antiferromagnet CrCl. <i>Nature Nanotechnology</i> , <b>2019</b> , 14, 1116-1122	28.7	43
1045	Limitations to carrier mobility and phase-coherent transport in bilayer graphene. <i>Physical Review Letters</i> , <b>2014</b> , 113, 126801	7.4	43
1044	A graphene Zener-Klein transistor cooled by a hyperbolic substrate. <i>Nature Nanotechnology</i> , <b>2018</b> , 13, 47-52	28.7	43
1043	Spin-polarized electrons in monolayer MoS. <i>Nature Nanotechnology</i> , <b>2019</b> , 14, 432-436	28.7	42
1042	Nanostructures and Dynamics of Macromolecules Bound to Attractive Filler Surfaces. <i>ACS Macro Letters</i> , <b>2015</b> , 4, 838-842	6.6	42
1041	Molecular Self-Assembly in a Poorly Screened Environment: F4TCNQ on Graphene/BN. <i>ACS Nano</i> , <b>2015</b> , 9, 12168-73	16.7	42
1040	Widely tunable mid-infrared light emission in thin-film black phosphorus. <i>Science Advances</i> , <b>2020</b> , 6, eaay6134	61.34	42
1039	Nanoscale Control of Rewriteable Doping Patterns in Pristine Graphene/Boron Nitride Heterostructures. <i>Nano Letters</i> , <b>2016</b> , 16, 1620-5	11.5	42
1038	Ambipolar Landau levels and strong band-selective carrier interactions in monolayer WSe. <i>Nature Materials</i> , <b>2018</b> , 17, 411-415	27	41
1037	Boron Nitride Nanosheet-Veiled Gold Nanoparticles for Surface-Enhanced Raman Scattering. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 15630-6	9.5	41
1036	The role of momentum-dark excitons in the elementary optical response of bilayer WSe. <i>Nature Communications</i> , <b>2018</b> , 9, 2586	17.4	41
1035	Stripe phases in WSe/WS moiré superlattices. <i>Nature Materials</i> , <b>2021</b> , 20, 940-944	27	41
1034	Even denominator fractional quantum Hall states in higher Landau levels of graphene. <i>Nature Physics</i> , <b>2019</b> , 15, 154-158	16.2	41
1033	Low-temperature monoclinic layer stacking in atomically thin CrI <sub>3</sub> crystals. <i>2D Materials</i> , <b>2020</b> , 7, 015007	5.9	41
1032	Imaging moiré flat bands in three-dimensional reconstructed WSe/WS superlattices. <i>Nature Materials</i> , <b>2021</b> , 20, 945-950	27	41
1031	Current-Phase Relation of Ballistic Graphene Josephson Junctions. <i>Nano Letters</i> , <b>2017</b> , 17, 3396-3401	11.5	40



1030	Coherent Interlayer Tunneling and Negative Differential Resistance with High Current Density in Double Bilayer Graphene-WSe Heterostructures. <i>Nano Letters</i> , <b>2017</b> , 17, 3919-3925	11.5	40
1029	Intrinsic lifetime of higher excitonic states in tungsten diselenide monolayers. <i>Nanoscale</i> , <b>2019</b> , 11, 12381-12387	11.5	40
1028	Mach-Zehnder interferometry using spin- and valley-polarized quantum Hall edge states in graphene. <i>Science Advances</i> , <b>2017</b> , 3, e1700600	14.3	40
1027	High optical quality of MoS <sub>2</sub> monolayers grown by chemical vapor deposition. <i>2D Materials</i> , <b>2020</b> , 7, 015011	5.9	40
1026	Coexistence of Magnetic Orders in Two-Dimensional Magnet CrI. <i>Nano Letters</i> , <b>2020</b> , 20, 553-558	11.5	40
1025	Switchable friction enabled by nanoscale self-assembly on graphene. <i>Nature Communications</i> , <b>2016</b> , 7, 10745	17.4	40
1024	Unusual Suppression of the Superconducting Energy Gap and Critical Temperature in Atomically Thin NbSe. <i>Nano Letters</i> , <b>2018</b> , 18, 2623-2629	11.5	39
1023	Molecule-Induced Conformational Change in Boron Nitride Nanosheets with Enhanced Surface Adsorption. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 8202-8210	15.6	39
1022	Coupled Quantum Dots in Bilayer Graphene. <i>Nano Letters</i> , <b>2018</b> , 18, 5042-5048	11.5	39
1021	Excited States in Bilayer Graphene Quantum Dots. <i>Physical Review Letters</i> , <b>2019</b> , 123, 026803	7.4	39
1020	Rigid Band Shifts in Two-Dimensional Semiconductors through External Dielectric Screening. <i>Physical Review Letters</i> , <b>2019</b> , 123, 206403	7.4	39
1019	The optical absorption and photoconductivity spectra of hexagonal boron nitride single crystals. <i>Physica Status Solidi A</i> , <b>2005</b> , 202, 2229-2233		39
1018	Flavour Hund's coupling, Chern gaps and charge diffusivity in moiré graphene. <i>Nature</i> , <b>2021</b> , 592, 43-48	50.4	39
1017	High-mobility diamond field effect transistor with a monocrystalline h-BN gate dielectric. <i>APL Materials</i> , <b>2018</b> , 6, 111105	5.7	39
1016	Correlation-driven topological phases in magic-angle twisted bilayer graphene. <i>Nature</i> , <b>2021</b> , 589, 536-541	50.4	39
1015	Light from van der Waals quantum tunneling devices. <i>Nature Communications</i> , <b>2019</b> , 10, 292	17.4	38
1014	Filtering the photoluminescence spectra of atomically thin semiconductors with graphene. <i>Nature Nanotechnology</i> , <b>2020</b> , 15, 283-288	28.7	38
1013	Quantum-Confined Stark Effect in a MoS Monolayer van der Waals Heterostructure. <i>Nano Letters</i> , <b>2018</b> , 18, 1070-1074	11.5	38

1012	Study of Graphene-based 2D-Heterostructure Device Fabricated by All-Dry Transfer Process. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 3072-8	9.5	38
1011	Effects of High-Energy Electron Irradiation on Quantum Emitters in Hexagonal Boron Nitride. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 24886-24891	9.5	38
1010	Isospin Pomeranchuk effect in twisted bilayer graphene. <i>Nature</i> , <b>2021</b> , 592, 220-224	50.4	38
1009	Signatures of Phonon and Defect-Assisted Tunneling in Planar Metal-Hexagonal Boron Nitride-Graphene Junctions. <i>Nano Letters</i> , <b>2016</b> , 16, 7982-7987	11.5	38
1008	Accurate Gap Determination in Monolayer and Bilayer Graphene/ h-BN Moiré Superlattices. <i>Nano Letters</i> , <b>2018</b> , 18, 7732-7741	11.5	38
1007	Weakly Trapped, Charged, and Free Excitons in Single-Layer MoS in the Presence of Defects, Strain, and Charged Impurities. <i>ACS Nano</i> , <b>2017</b> , 11, 11206-11216	16.7	37
1006	Electrotunable artificial molecules based on van der Waals heterostructures. <i>Science Advances</i> , <b>2017</b> , 3, e1701699	14.3	37
1005	Wide-Field Spectral Super-Resolution Mapping of Optically Active Defects in Hexagonal Boron Nitride. <i>Nano Letters</i> , <b>2019</b> , 19, 2516-2523	11.5	37
1004	High-Quality Magnetotransport in Graphene Using the Edge-Free Corbino Geometry. <i>Physical Review Letters</i> , <b>2019</b> , 122, 137701	7.4	37
1003	Strong mid-infrared photoresponse in small-twist-angle bilayer graphene. <i>Nature Photonics</i> , <b>2020</b> , 14, 549-553	33.9	37
1002	Via Method for Lithography Free Contact and Preservation of 2D Materials. <i>Nano Letters</i> , <b>2018</b> , 18, 1416-1420	11.5	37
1001	Controlled Electrochemical Intercalation of Graphene/h-BN van der Waals Heterostructures. <i>Nano Letters</i> , <b>2018</b> , 18, 460-466	11.5	37
1000	Etched graphene quantum dots on hexagonal boron nitride. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 073113	3.4	37
999	van der Waals Bonded Co/h-BN Contacts to Ultrathin Black Phosphorus Devices. <i>Nano Letters</i> , <b>2017</b> , 17, 5361-5367	11.5	37
998	Exciton States in Monolayer MoSe <sub>2</sub> and MoTe <sub>2</sub> Probed by Upconversion Spectroscopy. <i>Physical Review X</i> , <b>2018</b> , 8,	9.1	37
997	Characterization of the second- and third-harmonic optical susceptibilities of atomically thin tungsten diselenide. <i>Scientific Reports</i> , <b>2018</b> , 8, 10035	4.9	37
996	Controlling interlayer excitons in MoS layers grown by chemical vapor deposition. <i>Nature Communications</i> , <b>2020</b> , 11, 2391	17.4	36
995	Controlling Excitons in an Atomically Thin Membrane with a Mirror. <i>Physical Review Letters</i> , <b>2020</b> , 124, 027401	7.4	36

994	Elasticity of cubic boron nitride under ambient conditions. <i>Journal of Applied Physics</i> , <b>2011</b> , 109, 063521	2.5	36
993	Entropic evidence for a Pomeranchuk effect in magic-angle graphene. <i>Nature</i> , <b>2021</b> , 592, 214-219	50.4	36
992	Composite super-moiré lattices in double-aligned graphene heterostructures. <i>Science Advances</i> , <b>2019</b> , 5, eaay8897	14.3	36
991	Giant intrinsic photoresponse in pristine graphene. <i>Nature Nanotechnology</i> , <b>2019</b> , 14, 145-150	28.7	36
990	Visualization of the flat electronic band in twisted bilayer graphene near the magic angle twist. <i>Nature Physics</i> , <b>2021</b> , 17, 184-188	16.2	36
989	Pauli-limit violation and re-entrant superconductivity in moiré graphene. <i>Nature</i> , <b>2021</b> , 595, 526-531	50.4	36
988	2D semiconductor nonlinear plasmonic modulators. <i>Nature Communications</i> , <b>2019</b> , 10, 3264	17.4	35
987	Effect of rheological behavior of epoxy during precuring on foaming. <i>Journal of Applied Polymer Science</i> , <b>2008</b> , 110, 657-662	2.9	35
986	Giant Valley-Zeeman Splitting from Spin-Singlet and Spin-Triplet Interlayer Excitons in WSe/MoSe Heterostructure. <i>Nano Letters</i> , <b>2020</b> , 20, 694-700	11.5	35
985	Measurement of the spin-forbidden dark excitons in MoS and MoSe monolayers. <i>Nature Communications</i> , <b>2020</b> , 11, 4037	17.4	35
984	Anisotropic Dielectric Breakdown Strength of Single Crystal Hexagonal Boron Nitride. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 27877-27884	9.5	35
983	High-Performance Near-Infrared Photodetectors Based on Surface-Doped InSe. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2006788	15.6	35
982	Towards chirality control of graphene nanoribbons embedded in hexagonal boron nitride. <i>Nature Materials</i> , <b>2021</b> , 20, 202-207	27	35
981	Correlated insulating states at fractional fillings of the WS <sub>2</sub> /WSe <sub>2</sub> moiré lattice. <i>Nature Physics</i> , <b>2021</b> , 17, 715-719	16.2	35
980	Gate-Tunable Graphene-WSe Heterojunctions at the Schottky-Mott Limit. <i>Advanced Materials</i> , <b>2019</b> , 31, e1901392	24	34
979	Coulomb blockade in an atomically thin quantum dot coupled to a tunable Fermi reservoir. <i>Nature Nanotechnology</i> , <b>2019</b> , 14, 442-446	28.7	34
978	Observation of Magnetic Proximity Effect Using Resonant Optical Spectroscopy of an Electrically Tunable MoSe <sub>2</sub> /CrBr <sub>3</sub> Heterostructure. <i>Physical Review Letters</i> , <b>2020</b> , 124, 197401	7.4	34
977	Atomic structure of luminescent centers in high-efficiency Ce-doped w-AlN single crystal. <i>Scientific Reports</i> , <b>2014</b> , 4, 3778	4.9	34

976	Symmetry-broken Chern insulators and Rashba-like Landau-level crossings in magic-angle bilayer graphene. <i>Nature Physics</i> , <b>2021</b> , 17, 710-714	16.2	34
975	Direct Observation of Gate-Tunable Dark Trions in Monolayer WSe. <i>Nano Letters</i> , <b>2019</b> , 19, 6886-6893	11.5	33
974	Energy Spectrum of Two-Dimensional Excitons in a Nonuniform Dielectric Medium. <i>Physical Review Letters</i> , <b>2019</b> , 123, 136801	7.4	33
973	Lattice Dynamics, Phonon Chirality, and SpinPhonon Coupling in 2D Itinerant Ferromagnet Fe <sub>3</sub> GeTe <sub>2</sub> . <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1904734	15.6	33
972	Gate-Defined One-Dimensional Channel and Broken Symmetry States in MoS van der Waals Heterostructures. <i>Nano Letters</i> , <b>2017</b> , 17, 5008-5011	11.5	33
971	Natural optical anisotropy of h-BN: Highest giant birefringence in a bulk crystal through the mid-infrared to ultraviolet range. <i>Physical Review Materials</i> , <b>2018</b> , 2,	3.2	33
970	Layer-engineered large-area exfoliation of graphene. <i>Science Advances</i> , <b>2020</b> , 6,	14.3	33
969	Tunable van Hove singularities and correlated states in twisted monolayerBilayer graphene. <i>Nature Physics</i> , <b>2021</b> , 17, 619-626	16.2	33
968	Atomically precise graphene etch stops for three dimensional integrated systems from two dimensional material heterostructures. <i>Nature Communications</i> , <b>2018</b> , 9, 3988	17.4	33
967	Isolating hydrogen in hexagonal boron nitride bubbles by a plasma treatment. <i>Nature Communications</i> , <b>2019</b> , 10, 2815	17.4	32
966	Upconverted electroluminescence via Auger scattering of interlayer excitons in van der Waals heterostructures. <i>Nature Communications</i> , <b>2019</b> , 10, 2335	17.4	32
965	Spontaneous gyrotropic electronic order in a transition-metal dichalcogenide. <i>Nature</i> , <b>2020</b> , 578, 545-549	10.4	32
964	Reversible writing of high-mobility and high-carrier-density doping patterns in two-dimensional van der Waals heterostructures. <i>Nature Electronics</i> , <b>2020</b> , 3, 99-105	28.4	32
963	Large-Velocity Saturation in Thin-Film Black Phosphorus Transistors. <i>ACS Nano</i> , <b>2018</b> , 12, 5003-5010	16.7	32
962	Modulation of electrical potential and conductivity in an atomic-layer semiconductor heterojunction. <i>Scientific Reports</i> , <b>2016</b> , 6, 31223	4.9	32
961	Electrostatic coupling between two surfaces of a topological insulator nanodevice. <i>Physical Review Letters</i> , <b>2014</b> , 113, 206801	7.4	32
960	Relation between tacticity and fiber diameter in melt-electrospinning of polypropylene. <i>Fibers and Polymers</i> , <b>2009</b> , 10, 275-279	2	32
959	Spectroscopic investigations of negatively charged tin-vacancy centres in diamond. <i>New Journal of Physics</i> , <b>2020</b> , 22, 013048	2.9	32

958	Graphene-based Josephson junction microwave bolometer. <i>Nature</i> , <b>2020</b> , 586, 42-46	50.4	32
957	Magnetic field compatible circuit quantum electrodynamics with graphene Josephson junctions. <i>Nature Communications</i> , <b>2018</b> , 9, 4615	17.4	32
956	Spectroscopic studies of atomic defects and bandgap renormalization in semiconducting monolayer transition metal dichalcogenides. <i>Nature Communications</i> , <b>2019</b> , 10, 3825	17.4	31
955	Interaction-driven quantum Hall wedding cake-like structures in graphene quantum dots. <i>Science</i> , <b>2018</b> , 361, 789-794	33.3	31
954	Imaging and tuning molecular levels at the surface of a gated graphene device. <i>ACS Nano</i> , <b>2014</b> , 8, 5395-401	17.4	31
953	Anisotropic excitonic effects in the energy loss function of hexagonal boron nitride. <i>Physical Review B</i> , <b>2011</b> , 83,	3.3	31
952	Twist-angle dependence of moiré excitons in WS/MoSe heterobilayers. <i>Nature Communications</i> , <b>2020</b> , 11, 5888	17.4	31
951	Distinct magneto-Raman signatures of spin-flip phase transitions in CrI. <i>Nature Communications</i> , <b>2020</b> , 11, 3879	17.4	31
950	Electronic phase separation in multilayer rhombohedral graphite. <i>Nature</i> , <b>2020</b> , 584, 210-214	50.4	31
949	Phonon renormalization in reconstructed MoS moiré superlattices. <i>Nature Materials</i> , <b>2021</b> , 20, 1100-1105	27	31
948	Quantum Hall Effect in Electron-Doped Black Phosphorus Field-Effect Transistors. <i>Nano Letters</i> , <b>2018</b> , 18, 6611-6616	11.5	31
947	Gate-Defined Electron-Hole Double Dots in Bilayer Graphene. <i>Nano Letters</i> , <b>2018</b> , 18, 4785-4790	11.5	31
946	Sub-bandgap Voltage Electroluminescence and Magneto-oscillations in a WSe Light-Emitting van der Waals Heterostructure. <i>Nano Letters</i> , <b>2017</b> , 17, 1425-1430	11.5	30
945	One-Dimensional Edge Contacts to a Monolayer Semiconductor. <i>Nano Letters</i> , <b>2019</b> , 19, 6914-6923	11.5	30
944	Dry release transfer of graphene and few-layer h-BN by utilizing thermoplasticity of polypropylene carbonate. <i>Npj 2D Materials and Applications</i> , <b>2019</b> , 3,	8.8	30
943	Spin-Orbit Protection of Induced Superconductivity in Majorana Nanowires. <i>Physical Review Letters</i> , <b>2019</b> , 122, 187702	7.4	30
942	Sensitivity of the superconducting state in thin films. <i>Science Advances</i> , <b>2019</b> , 5, eaau3826	14.3	30
941	Intrinsic Transport in 2D Heterostructures Mediated through h-BN Tunneling Contacts. <i>Nano Letters</i> , <b>2018</b> , 18, 2990-2998	11.5	30

- 940 Large Variations of the Raman Signal in the Spectra of Twisted Bilayer Graphene on a BN Substrate. *Journal of Physical Chemistry Letters*, **2012**, 3, 796-9 6.4 30
- 939 Phonon Polariton-assisted Infrared Nanoimaging of Local Strain in Hexagonal Boron Nitride. *Nano Letters*, **2019**, 19, 1982-1989 11.5 30
- 938 The valley Zeeman effect in inter- and intra-valley trions in monolayer WSe. *Nature Communications*, **2019**, 10, 2330 17.4 29
- 937 Spin-Split Band Hybridization in Graphene Proximitized with  $\beta$ -RuCl Nanosheets. *Nano Letters*, **2019**, 19, 4659-4665 11.5 29
- 936 Simultaneous voltage and current density imaging of flowing electrons in two dimensions. *Nature Nanotechnology*, **2019**, 14, 480-487 28.7 29
- 935 Evidence for Helical Hinge Zero Modes in an Fe-Based Superconductor. *Nano Letters*, **2019**, 19, 4890-4896 11.5 29
- 934 High mobility dry-transferred CVD bilayer graphene. *Applied Physics Letters*, **2017**, 110, 263110 3.4 29
- 933 Multiscale simulation of history-dependent flow in entangled polymer melts. *Europhysics Letters*, **2011**, 96, 18002 1.6 29
- 932 Valley-selective chiral phonon replicas of dark excitons and trions in monolayer WSe<sub>2</sub>. *Physical Review Research*, **2019**, 1, 033001 3.9 29
- 931 Electron-phonon instability in graphene revealed by global and local noise probes. *Science*, **2019**, 364, 154-157 33.3 29
- 930 Magnetic Order-Induced Polarization Anomaly of Raman Scattering in 2D Magnet CrI<sub>3</sub>. *Nano Letters*, **2020**, 20, 729-734 11.5 29
- 929 Moiré potential impedes interlayer exciton diffusion in van der Waals heterostructures. *Science Advances*, **2020**, 6, eabc0002 14.3 29
- 928 Continuous Mott transition in semiconductor moiré superlattices. *Nature*, **2021**, 597, 350-354 50.4 29
- 927 Pairing states of composite fermions in double-layer graphene. *Nature Physics*, **2019**, 15, 898-903 16.2 28
- 926 Multiple hot-carrier collection in photo-excited graphene Moiré superlattices. *Science Advances*, **2016**, 2, e1600002 14.3 28
- 925 Electronic spin transport in dual-gated bilayer graphene. *NPG Asia Materials*, **2016**, 8, e274-e274 10.3 28
- 924 Van der Waals heterostructure polaritons with moiré-induced nonlinearity. *Nature*, **2021**, 591, 61-65 50.4 28
- 923 A wavelength-scale black phosphorus spectrometer. *Nature Photonics*, **2021**, 15, 601-607 33.9 28

922	Networking retinomorph sensor with memristive crossbar for brain-inspired visual perception. <i>National Science Review</i> , <b>2021</b> , 8, nwaa172	10.8	28
921	Visualization and Control of Single-Electron Charging in Bilayer Graphene Quantum Dots. <i>Nano Letters</i> , <b>2018</b> , 18, 5104-5110	11.5	27
920	Inducing Kondo screening of vacancy magnetic moments in graphene with gating and local curvature. <i>Nature Communications</i> , <b>2018</b> , 9, 2349	17.4	27
919	Tunneling transport in a few monolayer-thick WS <sub>2</sub> /graphene heterojunction. <i>Applied Physics Letters</i> , <b>2014</b> , 105, 223109	3.4	27
918	Helical quantum Hall phase in graphene on SrTiO. <i>Science</i> , <b>2020</b> , 367, 781-786	33.3	27
917	Dynamic Exciton Funneling by Local Strain Control in a Monolayer Semiconductor. <i>Nano Letters</i> , <b>2020</b> , 20, 6791-6797	11.5	27
916	Atomistic defects as single-photon emitters in atomically thin MoS <sub>2</sub> . <i>Applied Physics Letters</i> , <b>2020</b> , 117, 070501	3.4	27
915	Single-spin resonance in a van der Waals embedded paramagnetic defect. <i>Nature Materials</i> , <b>2021</b> , 20, 1079-1084	27	27
914	30°-Twisted Bilayer Graphene Quasicrystals from Chemical Vapor Deposition. <i>Nano Letters</i> , <b>2020</b> , 20, 3313-3319	11.5	27
913	Quantum Wires and Waveguides Formed in Graphene by Strain. <i>Nano Letters</i> , <b>2018</b> , 18, 64-69	11.5	27
912	Absorptive pinhole collimators for ballistic Dirac fermions in graphene. <i>Nature Communications</i> , <b>2017</b> , 8, 15418	17.4	26
911	Probing and Manipulating Valley Coherence of Dark Excitons in Monolayer WSe <sub>2</sub> . <i>Physical Review Letters</i> , <b>2019</b> , 123, 096803	7.4	26
910	Tunable Valley Splitting due to Topological Orbital Magnetic Moment in Bilayer Graphene Quantum Point Contacts. <i>Physical Review Letters</i> , <b>2020</b> , 124, 126802	7.4	26
909	Superior Valley Polarization and Coherence of 2s Excitons in Monolayer WSe <sub>2</sub> . <i>Physical Review Letters</i> , <b>2018</b> , 120, 046402	7.4	26
908	Integer and Fractional Quantum Hall effect in Ultrahigh Quality Few-layer Black Phosphorus Transistors. <i>Nano Letters</i> , <b>2018</b> , 18, 229-234	11.5	26
907	Stacking Order in Graphite Films Controlled by van der Waals Technology. <i>Nano Letters</i> , <b>2019</b> , 19, 8526-8532	11.5	26
906	Resolving the spin splitting in the conduction band of monolayer MoS. <i>Nature Communications</i> , <b>2017</b> , 8, 1938	17.4	26
905	Rheology and morphology change with temperature of SEBS/hydrocarbon oil blends. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2009</b> , 47, 955-965	2.6	26



904	Rheological properties of poly(vinyl chloride)/plasticizer systems. Relation between sol-gel transition and elongational viscosity. <i>Rheologica Acta</i> , <b>2007</b> , 46, 957-964	2.3	26
903	Strain fields in twisted bilayer graphene. <i>Nature Materials</i> , <b>2021</b> , 20, 956-963	27	26
902	Proximity-Induced Superconductivity with Subgap Anomaly in Type II Weyl Semi-Metal WTe <sub>2</sub> . <i>Nano Letters</i> , <b>2018</b> , 18, 7962-7968	11.5	26
901	Superconductivity in rhombohedral trilayer graphene. <i>Nature</i> , <b>2021</b> , 598, 434-438	50.4	26
900	Observation of biexcitonic emission at extremely low power density in tungsten disulfide atomic layers grown on hexagonal boron nitride. <i>Scientific Reports</i> , <b>2017</b> , 7, 322	4.9	25
899	Tunable transmission of quantum Hall edge channels with full degeneracy lifting in split-gated graphene devices. <i>Nature Communications</i> , <b>2017</b> , 8, 14983	17.4	25
898	Fabry-Pérot Resonances in a Graphene/hBN Moiré Superlattice. <i>Nano Letters</i> , <b>2017</b> , 17, 328-333	11.5	25
897	Interlayer fractional quantum Hall effect in a coupled graphene double layer. <i>Nature Physics</i> , <b>2019</b> , 15, 893-897	16.2	25
896	Single-Electron Double Quantum Dots in Bilayer Graphene. <i>Nano Letters</i> , <b>2020</b> , 20, 2005-2011	11.5	25
895	Local, global, and nonlinear screening in twisted double-layer graphene. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 6623-8	11.5	25
894	Hofstadter Butterfly and Many-Body Effects in Epitaxial Graphene Superlattice. <i>Nano Letters</i> , <b>2016</b> , 16, 2387-92	11.5	25
893	Phonon symmetries in hexagonal boron nitride probed by incoherent light emission. <i>2D Materials</i> , <b>2017</b> , 4, 011004	5.9	25
892	Spectroscopic analysis of Eu <sup>3+</sup> in single-crystal hexagonal phase AlN. <i>Journal of Applied Physics</i> , <b>2011</b> , 110, 023104	2.5	25
891	Raman spectroscopy of cubic boron nitride under high temperature and pressure conditions: A new optical pressure marker. <i>Review of Scientific Instruments</i> , <b>2004</b> , 75, 2451-2454	1.7	25
890	Giant Stark splitting of an exciton in bilayer MoS <sub>2</sub> . <i>Nature Nanotechnology</i> , <b>2020</b> , 15, 901-907	28.7	25
889	In situ nanoscale imaging of moiré superlattices in twisted van der Waals heterostructures. <i>Nature Communications</i> , <b>2020</b> , 11, 4209	17.4	25
888	Imaging orbital ferromagnetism in a moiré Chern insulator. <i>Science</i> , <b>2021</b> , 372, 1323-1327	33.3	25
887	Momentum-Dark Intervalley Exciton in Monolayer Tungsten Diselenide Brightened Chiral Phonon. <i>ACS Nano</i> , <b>2019</b> , 13, 14107-14113	16.7	25



886	Excess resistivity in graphene superlattices caused by umklapp electron-electron scattering. <i>Nature Physics</i> , <b>2019</b> , 15, 32-36	16.2	25
885	Tunnel spectroscopy of localised electronic states in hexagonal boron nitride. <i>Communications Physics</i> , <b>2018</b> , 1,	5.4	25
884	Electronic transport in helium-ion-beam etched encapsulated graphene nanoribbons. <i>Carbon</i> , <b>2017</b> , 119, 419-425	10.4	24
883	Magnetophotoluminescence of exciton Rydberg states in monolayer WSe <sub>2</sub> . <i>Physical Review B</i> , <b>2019</b> , 99,	3.3	24
882	Luminescent Emission of Excited Rydberg Excitons from Monolayer WSe. <i>Nano Letters</i> , <b>2019</b> , 19, 2464-2471	11.5	24
881	Fractional Quantum Hall States in Bilayer Graphene Probed by Transconductance Fluctuations. <i>Nano Letters</i> , <b>2015</b> , 15, 7445-51	11.5	24
880	Biexcitonic optical Stark effects in monolayer molybdenum diselenide. <i>Nature Physics</i> , <b>2018</b> , 14, 1092-1096	16.2	24
879	Gap Opening in Twisted Double Bilayer Graphene by Crystal Fields. <i>Nano Letters</i> , <b>2019</b> , 19, 8821-8828	11.5	24
878	Switching of intra-orbital spin excitations in electron-doped iron pnictide superconductors. <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	24
877	Laser-Assisted Multilevel Non-Volatile Memory Device Based on 2D van-der-Waals Few-Layer-ReS <sub>2</sub> /h-BN/Graphene Heterostructures. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2001688	15.6	24
876	A van der Waals interface that creates in-plane polarization and a spontaneous photovoltaic effect. <i>Science</i> , <b>2021</b> , 372, 68-72	33.3	24
875	Tunnel field-effect transistors for sensitive terahertz detection. <i>Nature Communications</i> , <b>2021</b> , 12, 543	17.4	24
874	Lattice-Matched Epitaxial Graphene Grown on Boron Nitride. <i>Nano Letters</i> , <b>2018</b> , 18, 498-504	11.5	24
873	Electrical generation and detection of spin waves in a quantum Hall ferromagnet. <i>Science</i> , <b>2018</b> , 362, 229-233	33.3	24
872	Twist Angle-Dependent Interlayer Exciton Lifetimes in van der Waals Heterostructures. <i>Physical Review Letters</i> , <b>2021</b> , 126, 047401	7.4	24
871	Direct Evidence for Charge Compensation-Induced Large Magnetoresistance in Thin WTe. <i>Nano Letters</i> , <b>2019</b> , 19, 3969-3975	11.5	23
870	Manipulating Charge and Energy Transfer between 2D Atomic Layers via Heterostructure Engineering. <i>Nano Letters</i> , <b>2020</b> , 20, 5359-5366	11.5	23
869	Polarized Light-Emitting Diodes Based on Anisotropic Excitons in Few-Layer ReS. <i>Advanced Materials</i> , <b>2020</b> , 32, e2001890	24	23

868	Bubble-Free Transfer Technique for High-Quality Graphene/Hexagonal Boron Nitride van der Waals Heterostructures. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 8533-8538	9.5	23
867	Phase-field modeling on laser melting of a metallic powder. <i>International Journal of Heat and Mass Transfer</i> , <b>2018</b> , 117, 412-424	4.9	23
866	Unconventional Correlation between Quantum Hall Transport Quantization and Bulk State Filling in Gated Graphene Devices. <i>Physical Review Letters</i> , <b>2016</b> , 117, 186601	7.4	23
865	Universal quantized thermal conductance in graphene. <i>Science Advances</i> , <b>2019</b> , 5, eaaw5798	14.3	23
864	Effective Hexagonal Boron Nitride Passivation of Few-Layered InSe and GaSe to Enhance Their Electronic and Optical Properties. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 43480-43487	9.5	23
863	Ballistic transport in graphene antidot lattices. <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	23
862	In situ manipulation of van der Waals heterostructures for twistronics. <i>Science Advances</i> , <b>2020</b> , 6,	14.3	23
861	Enhanced tunable second harmonic generation from twistable interfaces and vertical superlattices in boron nitride homostructures. <i>Science Advances</i> , <b>2021</b> , 7,	14.3	23
860	Molecular beam epitaxy growth of monolayer niobium diselenide flakes. <i>Applied Physics Letters</i> , <b>2016</b> , 109, 133101	3.4	23
859	Dimensional reduction, quantum Hall effect and layer parity in graphite films. <i>Nature Physics</i> , <b>2019</b> , 15, 437-442	16.2	23
858	Topologically Nontrivial Valley States in Bilayer Graphene Quantum Point Contacts. <i>Physical Review Letters</i> , <b>2018</b> , 121, 257702	7.4	23
857	Room-Temperature Valley Polarization and Coherence in Transition Metal Dichalcogenide/Graphene van der Waals Heterostructures. <i>ACS Photonics</i> , <b>2018</b> , 5, 5047-5054	6.3	23
856	Spatial extent of the excited exciton states in WS <sub>2</sub> monolayers from diamagnetic shifts. <i>Physical Review B</i> , <b>2018</b> , 98,	3.3	23
855	2D Tunnel Field Effect Transistors (FETs) with a Stable Charge-Transfer-Type p+-WSe <sub>2</sub> Source. <i>Advanced Electronic Materials</i> , <b>2018</b> , 4, 1800207	6.4	23
854	N- and p-type carrier injections into WSe <sub>2</sub> with van der Waals contacts of two-dimensional materials. <i>Japanese Journal of Applied Physics</i> , <b>2017</b> , 56, 04CK09	1.4	22
853	Interaction-Induced Shubnikov-de Haas Oscillations in Optical Conductivity of Monolayer MoSe <sub>2</sub> . <i>Physical Review Letters</i> , <b>2019</b> , 123, 097403	7.4	22
852	Continuous Control and Enhancement of Excitonic Valley Polarization in Monolayer WSe <sub>2</sub> by Electrostatic Doping. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1900260	15.6	22
851	Phase-Change Hyperbolic Heterostructures for Nanopolaritonics: A Case Study of hBN/VO. <i>Advanced Materials</i> , <b>2019</b> , 31, e1900251	24	22

850	Ultra-high resolution imaging of thin films and single strands of polythiophene using atomic force microscopy. <i>Nature Communications</i> , <b>2019</b> , 10, 1537	17.4	22
849	Edge-channel interferometer at the graphene quantum Hall pn junction. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 183101	3.4	22
848	Interplay between spin proximity effect and charge-dependent exciton dynamics in MoSe/CrBr van der Waals heterostructures. <i>Nature Communications</i> , <b>2020</b> , 11, 6021	17.4	22
847	Evidence of higher-order topology in multilayer WTe from Josephson coupling through anisotropic hinge states. <i>Nature Materials</i> , <b>2020</b> , 19, 974-979	27	22
846	Near-Unity Light Absorption in a Monolayer WS Van der Waals Heterostructure Cavity. <i>Nano Letters</i> , <b>2020</b> , 20, 3545-3552	11.5	22
845	Large Reduction of Hot Spot Temperature in Graphene Electronic Devices with Heat-Spreading Hexagonal Boron Nitride. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 11101-11107	9.5	22
844	Conduction-band effective mass and bandgap of ZnSnN earth-abundant solar absorber. <i>Scientific Reports</i> , <b>2017</b> , 7, 14987	4.9	22
843	Exciton energy-momentum map of hexagonal boron nitride. <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	22
842	Continuous Wave Sum Frequency Generation and Imaging of Monolayer and Heterobilayer Two-Dimensional Semiconductors. <i>ACS Nano</i> , <b>2020</b> , 14, 708-714	16.7	22
841	Supercurrent Flow in Multiterminal Graphene Josephson Junctions. <i>Nano Letters</i> , <b>2019</b> , 19, 1039-1043	11.5	22
840	Moiré metrology of energy landscapes in van der Waals heterostructures. <i>Nature Communications</i> , <b>2021</b> , 12, 242	17.4	22
839	A ballistic graphene superconducting microwave circuit. <i>Nature Communications</i> , <b>2018</b> , 9, 4069	17.4	22
838	Multipath Optical Recombination of Intervalley Dark Excitons and Trions in Monolayer WSe <sub>2</sub> . <i>Physical Review Letters</i> , <b>2020</b> , 124, 196802	7.4	21
837	Odd- and even-denominator fractional quantum Hall states in monolayer WSe. <i>Nature Nanotechnology</i> , <b>2020</b> , 15, 569-573	28.7	21
836	Reconfigurable Diodes Based on Vertical WSe Transistors with van der Waals Bonded Contacts. <i>Advanced Materials</i> , <b>2018</b> , 30, e1707200	24	21
835	Internal Nanostructure Diagnosis with Hyperbolic Phonon Polaritons in Hexagonal Boron Nitride. <i>Nano Letters</i> , <b>2018</b> , 18, 5205-5210	11.5	21
834	Spin-Conserving Resonant Tunneling in Twist-Controlled WSe-hBN-WSe Heterostructures. <i>Nano Letters</i> , <b>2018</b> , 18, 5967-5973	11.5	21
833	Quantum Light in Curved Low Dimensional Hexagonal Boron Nitride Systems. <i>Scientific Reports</i> , <b>2017</b> , 7, 14758	4.9	21

- 832 Periodic modulation of tubular vesicles induced by phase separation. *Physical Review E*, **2010**, 82, 051928. 2.4 21
- 831 Multiscale Lagrangian fluid dynamics simulation for polymeric fluid. *Journal of Polymer Science, Part B: Polymer Physics*, **2010**, 48, 886-893 2.6 21
- 830 First-Principles Study of Various Hexagonal BN Phases. *Journal of the Physical Society of Japan*, **2007**, 76, 104707 1.5 21
- 829 Direct visualization of magnetic domains and moiré magnetism in twisted 2D magnets. *Science*, **2021**, 374, 1140-1144 33.3 21
- 828 Fast and Anomalous Exciton Diffusion in Two-Dimensional Hybrid Perovskites. *Nano Letters*, **2020**, 20, 6674-6681 11.5 21
- 827 Landau Level Splittings, Phase Transitions, and Nonuniform Charge Distribution in Trilayer Graphene. *Physical Review Letters*, **2016**, 117, 066601 7.4 21
- 826 Interlayer Exciton Transport in MoSe/WSe Heterostructures. *ACS Nano*, **2021**, 15, 1539-1547 16.7 21
- 825 Quantitative Transport Measurements of Fractional Quantum Hall Energy Gaps in Edgeless Graphene Devices. *Physical Review Letters*, **2018**, 121, 226801 7.4 21
- 824 Optimization of Temperature Sensitivity Using the Optically Detected Magnetic-Resonance Spectrum of a Nitrogen-Vacancy Center Ensemble. *Physical Review Applied*, **2018**, 10, 4.3 21
- 823 Strongly enhanced exciton-phonon coupling in two-dimensional WSe<sub>2</sub>. *Physical Review B*, **2018**, 97, 3.3 21
- 822 Ultra-low friction and edge-pinning effect in large-lattice-mismatch van der Waals heterostructures. *Nature Materials*, **2021**, 27 21
- 821 Moiréless correlations in ABCA graphene. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118, 11.5 21
- 820 Restoring the intrinsic optical properties of CVD-grown MoS monolayers and their heterostructures. *Nanoscale*, **2019**, 11, 12798-12803 7.7 20
- 819 Superior Current Carrying Capacity of Boron Nitride Encapsulated Carbon Nanotubes with Zero-Dimensional Contacts. *Nano Letters*, **2015**, 15, 6836-40 11.5 20
- 818 Depletion and the dynamics in colloid-polymer mixtures. *Current Opinion in Colloid and Interface Science*, **2015**, 20, 66-70 7.6 20
- 817 Observation of the Spin-Orbit Gap in Bilayer Graphene by One-Dimensional Ballistic Transport. *Physical Review Letters*, **2020**, 124, 177701 7.4 20
- 816 Nano-photocurrent Mapping of Local Electronic Structure in Twisted Bilayer Graphene. *Nano Letters*, **2020**, 20, 2958-2964 11.5 20
- 815 Approaching quantum anomalous Hall effect in proximity-coupled YIG/graphene/h-BN sandwich structure. *APL Materials*, **2018**, 6, 026401 5.7 20

814	Charge Detection in Gate-Defined Bilayer Graphene Quantum Dots. <i>Nano Letters</i> , <b>2019</b> , 19, 5216-5221	11.5	20
813	Full Energy Spectra of Interface State Densities for n- and p-type MoS <sub>2</sub> Field-Effect Transistors. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1904465	15.6	20
812	High-pressure synthesis and compressive behavior of tantalum nitrides. <i>Journal of Applied Physics</i> , <b>2014</b> , 115, 103520	2.5	20
811	Nanoporous structure of the cell walls of polycarbonate foams. <i>Journal of Materials Science</i> , <b>2014</b> , 49, 2605-2617	4.3	20
810	Hexagonal boron nitride as a new ultraviolet luminescent material and its application. Fluorescence properties of hBN single-crystal powder. <i>Diamond and Related Materials</i> , <b>2011</b> , 20, 849-852	3.5	20
809	Effect of quenched disorder on the quantum spin liquid state of the triangular-lattice antiferromagnet 1T-TaS <sub>2</sub> . <i>Physical Review Research</i> , <b>2020</b> , 2,	3.9	20
808	Nanoscale imaging of equilibrium quantum Hall edge currents and of the magnetic monopole response in graphene. <i>Nature Physics</i> , <b>2020</b> , 16, 164-170	16.2	20
807	Magnetic domains and domain wall pinning in atomically thin CrBr revealed by nanoscale imaging. <i>Nature Communications</i> , <b>2021</b> , 12, 1989	17.4	20
806	A Reliable All-2D Materials Artificial Synapse for High Energy-Efficient Neuromorphic Computing. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2011083	15.6	20
805	Position-controlled quantum emitters with reproducible emission wavelength in hexagonal boron nitride. <i>Nature Communications</i> , <b>2021</b> , 12, 3779	17.4	20
804	The role of chalcogen vacancies for atomic defect emission in MoS. <i>Nature Communications</i> , <b>2021</b> , 12, 3822	17.4	20
803	Signatures of Wigner crystal of electrons in a monolayer semiconductor. <i>Nature</i> , <b>2021</b> , 595, 53-57	50.4	20
802	High-Performance InSe Transistors with Ohmic Contact Enabled by Nonrectifying Barrier-Type Indium Electrodes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 33450-33456	9.5	20
801	Effect of Distance on Photoluminescence Quenching and Proximity-Induced Spin-Orbit Coupling in Graphene/WSe Heterostructures. <i>Nano Letters</i> , <b>2018</b> , 18, 3580-3585	11.5	20
800	Engineering the Luminescence and Generation of Individual Defect Emitters in Atomically Thin MoS <sub>2</sub> . <i>ACS Photonics</i> , <b>2021</b> , 8, 669-677	6.3	20
799	Surface transport and quantum Hall effect in ambipolar black phosphorus double quantum wells. <i>Science Advances</i> , <b>2017</b> , 3, e1603179	14.3	19
798	Sign-Reversing Hall Effect in Atomically Thin High-Temperature Bi <sub>2.1</sub> Sr <sub>1.9</sub> CaCu <sub>2.0</sub> O <sub>8+x</sub> Superconductors. <i>Physical Review Letters</i> , <b>2019</b> , 122, 247001	7.4	19
797	Graphene transistor based on tunable Dirac fermion optics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 6575-6579	11.5	19

- 796 High-temperature electronic devices enabled by hBN-encapsulated graphene. *Applied Physics Letters*, **2019**, 114, 123104 3.4 19
- 795 One-Dimensional Edge Transport in Few-Layer WTe. *Nano Letters*, **2020**, 20, 4228-4233 11.5 19
- 794 Room Temperature Graphene Mid-Infrared Bolometer with a Broad Operational Wavelength Range. *ACS Photonics*, **2020**, 7, 1206-1215 6.3 19
- 793 3D Manipulation of 2D Materials Using Microdome Polymer. *Nano Letters*, **2020**, 20, 2486-2492 11.5 19
- 792 Tailored Nanoscale Plasmon-Enhanced Vibrational Electron Spectroscopy. *Nano Letters*, **2020**, 20, 2973-2979 11.5 19
- 791 Coherent acoustic phonons in van der Waals nanolayers and heterostructures. *Physical Review B*, **2018**, 98, 3.3 19
- 790 Disorder from the Bulk Ionic Liquid in Electric Double Layer Transistors. *ACS Nano*, **2017**, 11, 8395-8400 16.7 19
- 789 Suppression of intrinsic roughness in encapsulated graphene. *Physical Review B*, **2017**, 96, 3.3 19
- 788 Field emission characteristics from graphene on hexagonal boron nitride. *Applied Physics Letters*, **2014**, 104, 221603 3.4 19
- 787 Solids of quantum Hall skyrmions in graphene. *Nature Physics*, **2020**, 16, 154-158 16.2 19
- 786 Synthesis of a Novel Rocksalt-Type Ternary Nitride Semiconductor MgSnN<sub>2</sub> Using the Metathesis Reaction under High Pressure. *European Journal of Inorganic Chemistry*, **2020**, 2020, 446-451 2.3 19
- 785 Plasmonic antenna coupling to hyperbolic phonon-polaritons for sensitive and fast mid-infrared photodetection with graphene. *Nature Communications*, **2020**, 11, 4872 17.4 19
- 784 Towards epitaxial graphene p-n junctions as electrically programmable quantum resistance standards. *Scientific Reports*, **2018**, 8, 15018 4.9 19
- 783 Magnetotransport Properties of Graphene Nanoribbons with Zigzag Edges. *Physical Review Letters*, **2018**, 120, 216601 7.4 19
- 782 Imaging two-dimensional generalized Wigner crystals. *Nature*, **2021**, 597, 650-654 50.4 19
- 781 Stacking transition in bilayer graphene caused by thermally activated rotation. *2D Materials*, **2017**, 4, 011013 5.9 18
- 780 Interface-Confined Doubly Anisotropic Oxidation of Two-Dimensional MoS. *Nano Letters*, **2017**, 17, 7267-7273 11.5 18
- 779 Propagation of superconducting coherence via chiral quantum-Hall edge channels. *Scientific Reports*, **2017**, 7, 10953 4.9 18



778	Pinpoint pick-up and bubble-free assembly of 2D materials using PDMS/PMMA polymers with lens shapes. <i>Applied Physics Express</i> , <b>2019</b> , 12, 055008	2.4	18
777	Topological Winding Number Change and Broken Inversion Symmetry in a Hofstadter's Butterfly. <i>Nano Letters</i> , <b>2015</b> , 15, 6395-9	11.5	18
776	Tunable Fermi surface topology and Lifshitz transition in bilayer graphene. <i>Synthetic Metals</i> , <b>2015</b> , 210, 19-31	3.6	18
775	Fracture-induced amorphization of polycrystalline SiO <sub>2</sub> stishovite: a potential platform for toughening in ceramics. <i>Scientific Reports</i> , <b>2014</b> , 4, 6558	4.9	18
774	Ultra-long carrier lifetime in neutral graphene-hBN van der Waals heterostructures under mid-infrared illumination. <i>Nature Communications</i> , <b>2020</b> , 11, 863	17.4	18
773	Monolayer Hexagonal Boron Nitride Tunnel Barrier Contact for Low-Power Black Phosphorus Heterojunction Tunnel Field-Effect Transistors. <i>Nano Letters</i> , <b>2020</b> , 20, 3963-3969	11.5	18
772	Determination of Carrier Polarity in Fowler-Nordheim Tunneling and Evidence of Fermi Level Pinning at the Hexagonal Boron Nitride/Metal Interface. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 11732-11738	9.5	18
771	Dielectric Dispersion and High Field Response of Multilayer Hexagonal Boron Nitride. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1804235	15.6	18
770	Valley-dependent exciton fine structure and Autler-Townes doublets from Berry phases in monolayer MoSe. <i>Nature Materials</i> , <b>2019</b> , 18, 1065-1070	27	18
769	Electrical detection of hyperbolic phonon-polaritons in heterostructures of graphene and boron nitride. <i>Npj 2D Materials and Applications</i> , <b>2017</b> , 1,	8.8	18
768	Band structure mapping of bilayer graphene via quasiparticle scattering. <i>APL Materials</i> , <b>2014</b> , 2, 092503	5.7	18
767	Characterization of luminous-cubic boron-nitride single-crystals doped with Eu <sup>3+</sup> and Tb <sup>3+</sup> ions. <i>Applied Physics Letters</i> , <b>2005</b> , 87, 211913	3.4	18
766	Quantum anomalous Hall effect from intertwined moiré bands.. <i>Nature</i> , <b>2021</b> , 600, 641-646	50.4	18
765	Strongly correlated excitonic insulator in atomic double layers. <i>Nature</i> , <b>2021</b> , 598, 585-589	50.4	18
764	Gate-Tunable Thermal Metal-Insulator Transition in VO Monolithically Integrated into a WSe Field-Effect Transistor. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 3224-3230	9.5	18
763	Tuning layer-hybridized moiré excitons by the quantum-confined Stark effect. <i>Nature Nanotechnology</i> , <b>2021</b> , 16, 52-57	28.7	18
762	Gate-tunable weak antilocalization in a few-layer InSe. <i>Physical Review B</i> , <b>2018</b> , 98,	3.3	18
761	Observation of Electron Coherence and Fabry-Perot Standing Waves at a Graphene Edge. <i>Nano Letters</i> , <b>2017</b> , 17, 7380-7386	11.5	17

- 760 Quantum Hall Effect Measurement of Spin-Orbit Coupling Strengths in Ultraclean Bilayer Graphene/WSe Heterostructures. *Nano Letters*, **2019**, 19, 7028-7034 11.5 17
- 759 In Situ Strain Tuning in hBN-Encapsulated Graphene Electronic Devices. *Nano Letters*, **2019**, 19, 4097-4102 11.5 17
- 758 Control of electron-electron interaction in graphene by proximity screenings. *Nature Communications*, **2020**, 11, 2339 17.4 17
- 757 Versatile construction of van der Waals heterostructures using a dual-function polymeric film. *Nature Communications*, **2020**, 11, 3029 17.4 17
- 756 Control of the orbital character of indirect excitons in MoS<sub>2</sub>/WS<sub>2</sub> heterobilayers. *Physical Review B*, **2020**, 101, 3-3 17
- 755 Nonlinear Luttinger liquid plasmons in semiconducting single-walled carbon nanotubes. *Nature Materials*, **2020**, 19, 986-991 27 17
- 754 Tunable bandwidths and gaps in twisted double bilayer graphene on the verge of correlations. *Physical Review B*, **2020**, 101, 3-3 17
- 753 Global Control of Stacking-Order Phase Transition by Doping and Electric Field in Few-Layer Graphene. *Nano Letters*, **2020**, 20, 3106-3112 11.5 17
- 752 Many-Particle Effects in the Cyclotron Resonance of Encapsulated Monolayer Graphene. *Physical Review Letters*, **2018**, 120, 047401 7.4 17
- 751 Electrically Inert h-BN/Bilayer Graphene Interface in All-Two-Dimensional Heterostructure Field Effect Transistors. *ACS Applied Materials & Interfaces*, **2018**, 10, 28780-28788 9.5 17
- 750 Spectrally narrow exciton luminescence from monolayer MoS<sub>2</sub> and MoSe<sub>2</sub> exfoliated onto epitaxially grown hexagonal BN. *Applied Physics Letters*, **2018**, 113, 032106 3-4 17
- 749 Momentum-forbidden dark excitons in hBN-encapsulated monolayer MoS<sub>2</sub>. *Npj 2D Materials and Applications*, **2019**, 3, 8.8 17
- 748 Direct observation of water-mediated single-proton transport between hBN surface defects. *Nature Nanotechnology*, **2020**, 15, 598-604 28.7 17
- 747 Electron-Hole Crossover in Gate-Controlled Bilayer Graphene Quantum Dots. *Nano Letters*, **2020**, 20, 7709-7715 11.5 17
- 746 Charge-Transfer Plasmon Polaritons at Graphene/ERuCl Interfaces. *Nano Letters*, **2020**, 20, 8438-8445 11.5 17
- 745 Exciton g-factors in monolayer and bilayer WSe from experiment and theory. *Nature Communications*, **2020**, 11, 4539 17.4 17
- 744 Josephson junction infrared single-photon detector. *Science*, **2021**, 372, 409-412 33.3 17
- 743 Signatures of moiré trions in WSe/MoSe heterobilayers. *Nature*, **2021**, 594, 46-50 50.4 17



742	Robust fractional quantum Hall effect in the N=2 Landau level in bilayer graphene. <i>Nature Communications</i> , <b>2016</b> , 7, 13908	17.4	17
741	Hysteresis-Free Hexagonal Boron Nitride Encapsulated 2D Semiconductor Transistors, NMOS and CMOS Inverters. <i>Advanced Electronic Materials</i> , <b>2019</b> , 5, 1800419	6.4	17
740	Competing Fractional Quantum Hall and Electron Solid Phases in Graphene. <i>Physical Review Letters</i> , <b>2019</b> , 122, 026802	7.4	17
739	Electrode-Free Anodic Oxidation Nanolithography of Low-Dimensional Materials. <i>Nano Letters</i> , <b>2018</b> , 18, 8011-8015	11.5	17
738	Waterproof Perovskite-Hexagonal Boron Nitride Hybrid Nanolasers with Low Lasing Thresholds and High Operating Temperature. <i>ACS Photonics</i> , <b>2018</b> , 5, 4520-4528	6.3	17
737	Quantum criticality in twisted transition metal dichalcogenides. <i>Nature</i> , <b>2021</b> , 597, 345-349	50.4	17
736	Landau quantization and highly mobile fermions in an insulator. <i>Nature</i> , <b>2021</b> , 589, 225-229	50.4	17
735	Multiscale simulations for entangled polymer melt spinning process. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2017</b> , 241, 34-42	2.7	16
734	Emergence of Tertiary Dirac Points in Graphene Moiré Superlattices. <i>Nano Letters</i> , <b>2017</b> , 17, 3576-3581	11.5	16
733	Absence of Interlayer Tunnel Coupling of K-Valley Electrons in Bilayer MoS <sub>2</sub> . <i>Physical Review Letters</i> , <b>2019</b> , 123, 117702	7.4	16
732	Topological valley currents in bilayer graphene/hexagonal boron nitride superlattices. <i>Applied Physics Letters</i> , <b>2019</b> , 114, 243105	3.4	16
731	Coherence and Density Dynamics of Excitons in a Single-Layer MoS Reaching the Homogeneous Limit. <i>ACS Nano</i> , <b>2019</b> , 13, 3500-3511	16.7	16
730	Charge-carrier mobility in hydrogen-terminated diamond field-effect transistors. <i>Journal of Applied Physics</i> , <b>2020</b> , 127, 185707	2.5	16
729	Tunable Symmetries of Integer and Fractional Quantum Hall Phases in Heterostructures with Multiple Dirac Bands. <i>Physical Review Letters</i> , <b>2016</b> , 117, 076807	7.4	16
728	Substrate-induced shifts and screening in the fluorescence spectra of supramolecular adsorbed organic monolayers. <i>Journal of Chemical Physics</i> , <b>2018</b> , 149, 054701	3.9	16
727	Realization of Quantum Hall Effect in Chemically Synthesized InSe. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1904032	15.6	16
726	Frictional Magneto-Coulomb Drag in Graphene Double-Layer Heterostructures. <i>Physical Review Letters</i> , <b>2017</b> , 119, 056802	7.4	16
725	High-mobility p-channel wide-bandgap transistors based on hydrogen-terminated diamond/hexagonal boron nitride heterostructures. <i>Nature Electronics</i> , <b>2022</b> , 5, 37-44	28.4	16

- 724 Evidence for unconventional superconductivity in twisted bilayer graphene. *Nature*, **2021**, 600, 240-245 50.4 16
- 723 Low-frequency Raman scattering in WSe<sub>2</sub>/MoSe<sub>2</sub> heterobilayers: Evidence for atomic reconstruction. *Applied Physics Letters*, **2020**, 117, 013104 3.4 16
- 722 Modulation Doping via a Two-Dimensional Atomic Crystalline Acceptor. *Nano Letters*, **2020**, 20, 8446-8452 52.5 16
- 721 Highly tunable junctions and non-local Josephson effect in magic-angle graphene tunnelling devices. *Nature Nanotechnology*, **2021**, 16, 769-775 28.7 16
- 720 Bilayer Wigner crystals in a transition metal dichalcogenide heterostructure. *Nature*, **2021**, 595, 48-52 50.4 16
- 719 Spatial Control of Laser-Induced Doping Profiles in Graphene on Hexagonal Boron Nitride. *ACS Applied Materials & Interfaces*, **2016**, 8, 9377-83 9.5 16
- 718 Reliable Postprocessing Improvement of van der Waals Heterostructures. *ACS Nano*, **2019**, 13, 14182-14189 16.7 16
- 717 Guiding Dirac Fermions in Graphene with a Carbon Nanotube. *Physical Review Letters*, **2019**, 123, 216804 7.4 16
- 716 Tunable intraband optical conductivity and polarization-dependent epsilon-near-zero behavior in black phosphorus. *Science Advances*, **2021**, 7, 14.3 16
- 715 Correlated electron-hole state in twisted double-bilayer graphene. *Science*, **2021**, 373, 1257-1260 33.3 16
- 714 Half- and quarter-metals in rhombohedral trilayer graphene. *Nature*, **2021**, 598, 429-433 50.4 16
- 713 Strong electronic interaction and multiple quantum Hall ferromagnetic phases in trilayer graphene. *Nature Communications*, **2017**, 8, 14518 17.4 15
- 712 Anisotropic Flow Control and Gate Modulation of Hybrid Phonon-Polaritons. *Nano Letters*, **2019**, 19, 7081-7115 11.5 15
- 711 Electrically Tunable Exciton-Plasmon Coupling in a WSe Monolayer Embedded in a Plasmonic Crystal Cavity. *Nano Letters*, **2019**, 19, 3543-3547 11.5 15
- 710 Fine structure of K-excitons in multilayers of transition metal dichalcogenides. *2D Materials*, **2019**, 6, 025026 5.9 15
- 709 Highly confined in-plane propagating exciton-polaritons on monolayer semiconductors. *2D Materials*, **2020**, 7, 035031 5.9 15
- 708 Patterns and driving forces of dimensionality-dependent charge density waves in 2H-type transition metal dichalcogenides. *Nature Communications*, **2020**, 11, 2406 17.4 15
- 707 The electronic thickness of graphene. *Science Advances*, **2020**, 6, eaay8409 14.3 15

706	Tunable Lifshitz Transitions and Multiband Transport in Tetralayer Graphene. <i>Physical Review Letters</i> , <b>2018</b> , 120, 096802	7.4	15
705	Gate Tunable Self-Biased Diode Based on Few Layered MoS <sub>2</sub> and WSe <sub>2</sub> . <i>Chemistry of Materials</i> , <b>2018</b> , 30, 1011-1016	9.6	15
704	Commensurability Oscillations in One-Dimensional Graphene Superlattices. <i>Physical Review Letters</i> , <b>2018</b> , 121, 026806	7.4	15
703	Moiré-Modulated Conductance of Hexagonal Boron Nitride Tunnel Barriers. <i>Nano Letters</i> , <b>2018</b> , 18, 4241-4246	11.5	15
702	Multiscale Modeling for Polymeric Flow: Particle-Fluid Bridging Scale Methods. <i>Journal of the Physical Society of Japan</i> , <b>2013</b> , 82, 012001	1.5	15
701	Melt rheology of hyperbranched-polystyrene synthesized with multisite macromonomer. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2009</b> , 47, 2226-2237	2.6	15
700	Integration of atomically thin layers of transition metal dichalcogenides into high-Q, monolithic Bragg-cavities: an experimental platform for the enhancement of the optical interaction in 2D-materials. <i>Optical Materials Express</i> , <b>2019</b> , 9, 598	2.6	15
699	Efficient Fizeau drag from Dirac electrons in monolayer graphene. <i>Nature</i> , <b>2021</b> , 594, 517-521	50.4	15
698	Direct observations of transition dynamics from macro- to micro-phase separation in asymmetric lipid bilayers induced by externally added glycolipids. <i>Europhysics Letters</i> , <b>2016</b> , 113, 56005	1.6	15
697	Gate-Switchable Arrays of Quantum Light Emitters in Contacted Monolayer MoS van der Waals Heterodevices. <i>Nano Letters</i> , <b>2021</b> , 21, 1040-1046	11.5	15
696	Layer Hall effect in a 2D topological axion antiferromagnet. <i>Nature</i> , <b>2021</b> , 595, 521-525	50.4	15
695	Creation of moiré bands in a monolayer semiconductor by spatially periodic dielectric screening. <i>Nature Materials</i> , <b>2021</b> , 20, 645-649	27	15
694	Frank-van der Merwe Growth versus Volmer-Weber Growth in Successive Stacking of a Few-Layer Bi <sub>2</sub> Te <sub>3</sub> /Sb <sub>2</sub> Te <sub>3</sub> by van der Waals Heteroepitaxy: The Critical Roles of Finite Lattice-Mismatch with Seed Substrates. <i>Advanced Electronic Materials</i> , <b>2017</b> , 3, 1600375	6.4	14
693	Direct Probing of the Electronic Structures of Single-Layer and Bilayer Graphene with a Hexagonal Boron Nitride Tunneling Barrier. <i>Nano Letters</i> , <b>2017</b> , 17, 206-213	11.5	14
692	Atomically Thin Boron Nitride as an Ideal Spacer for Metal-Enhanced Fluorescence. <i>ACS Nano</i> , <b>2019</b> , 13, 12184-12191	16.7	14
691	Band alignment determination of bulk h-BN and graphene/h-BN laminates using photoelectron emission microscopy. <i>Journal of Applied Physics</i> , <b>2019</b> , 125, 144303	2.5	14
690	Zeeman-Induced Valley-Sensitive Photocurrent in Monolayer MoS <sub>2</sub> . <i>Physical Review Letters</i> , <b>2019</b> , 122, 127401	7.4	14
689	Large enhancement of thermoelectric performance in MoS <sub>2</sub> /BN heterostructure due to vacancy-induced band hybridization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 13929-13936	11.5	14

- 688 Unveiling Valley Lifetimes of Free Charge Carriers in Monolayer WSe. *Nano Letters*, **2020**, 20, 3147-3154 11.5 14
- 687 A Quaternary van der Waals Ferromagnetic Semiconductor AgVP<sub>2</sub>Se<sub>6</sub>. *Advanced Functional Materials*, **2020**, 30, 1910036 15.6 14
- 686 Black Phosphorus High-Frequency Transistors with Local Contact Bias. *ACS Nano*, **2020**, 14, 2118-2125 16.7 14
- 685 Short Ballistic Josephson Coupling in Planar Graphene Junctions with Inhomogeneous Carrier Doping. *Physical Review Letters*, **2018**, 120, 077701 7.4 14
- 684 High-performance monolayer MoS<sub>2</sub> field-effect transistor with large-scale nitrogen-doped graphene electrodes for Ohmic contact. *Applied Physics Letters*, **2019**, 115, 012104 3.4 14
- 683 Blue-light-emitting color centers in high-quality hexagonal boron nitride. *Physical Review B*, **2019**, 100, 104404 3.3 14
- 682 Giant Valley-Isospin Conductance Oscillations in Ballistic Graphene. *Nano Letters*, **2017**, 17, 5389-5393 11.5 14
- 681 Signatures of a degenerate many-body state of interlayer excitons in a van der Waals heterostack. *Physical Review Research*, **2020**, 2, 023001 3.9 14
- 680 Coexisting ferromagnetic-antiferromagnetic state in twisted bilayer CrI<sub>3</sub>. *Nature Nanotechnology*, **2021**, 16, 1000 28.7 14
- 679 Environmental Electrometry with Luminescent Carbon Nanotubes. *Nano Letters*, **2018**, 18, 4136-4140 11.5 14
- 678 High-quality electrical transport using scalable CVD graphene. *2D Materials*, **2020**, 7, 041003 5.9 14
- 677 All 2D Heterostructure Tunnel Field-Effect Transistors: Impact of Band Alignment and Heterointerface Quality. *ACS Applied Materials & Interfaces*, **2020**, 12, 51598-51606 9.5 14
- 676 Nanoscale Conductivity Imaging of Correlated Electronic States in WSe<sub>2</sub>/WS<sub>2</sub> Moiré Superlattices. *Physical Review Letters*, **2020**, 125, 186803 7.4 14
- 675 Moiré excitons in MoSe-WSe heterobilayers and heterotrilayers. *Nature Communications*, **2021**, 12, 1656 17.4 14
- 674 Enhanced Superconductivity in Monolayer -MoTe. *Nano Letters*, **2021**, 21, 2505-2511 11.5 14
- 673 Excitonic Complexes and Emerging Interlayer Electron-Phonon Coupling in BN Encapsulated Monolayer Semiconductor Alloy: WSe. *Nano Letters*, **2019**, 19, 299-307 11.5 14
- 672 Direct Growth of Germanene at Interfaces between Van der Waals Materials and Ag(111). *Advanced Functional Materials*, **2021**, 31, 2007038 15.6 14
- 671 Propagating Plasmons in a Charge-Neutral Quantum Tunneling Transistor. *ACS Photonics*, **2017**, 4, 3012-3017 10.17 13

670	Frustrated supercritical collapse in tunable charge arrays on graphene. <i>Nature Communications</i> , <b>2019</b> , 10, 477	17.4	13
669	Interference of chiral Andreev edge states. <i>Nature Physics</i> , <b>2020</b> , 16, 862-867	16.2	13
668	Electrical switching between exciton dissociation to exciton funneling in MoSe/WS heterostructure. <i>Nature Communications</i> , <b>2020</b> , 11, 2640	17.4	13
667	Imaging and control of critical fluctuations in two-dimensional magnets. <i>Nature Materials</i> , <b>2020</b> , 19, 1290-1294	17.4	13
666	Doping-Induced Superconductivity in the van der Waals Superatomic Crystal ReSeCl. <i>Nano Letters</i> , <b>2020</b> , 20, 1718-1724	11.5	13
665	Narrow Excitonic Lines and Large-Scale Homogeneity of Transition-Metal Dichalcogenide Monolayers Grown by Molecular Beam Epitaxy on Hexagonal Boron Nitride. <i>Nano Letters</i> , <b>2020</b> , 20, 3058-3066	11.5	13
664	Nanoscale Imaging and Control of Hexagonal Boron Nitride Single Photon Emitters by a Resonant Nanoantenna. <i>Nano Letters</i> , <b>2020</b> , 20, 1992-1999	11.5	13
663	Quantum transport through MoS constrictions defined by photodoping. <i>Journal of Physics Condensed Matter</i> , <b>2018</b> , 30, 205001	1.8	13
662	Effective Landau Level Diagram of Bilayer Graphene. <i>Physical Review Letters</i> , <b>2018</b> , 120, 047701	7.4	13
661	Correlation of Electron Tunneling and Plasmon Propagation in a Luttinger Liquid. <i>Physical Review Letters</i> , <b>2018</b> , 121, 047702	7.4	13
660	Coexistence of classical snake states and Aharonov-Bohm oscillations along graphene p <i>n</i> junctions. <i>Physical Review B</i> , <b>2018</b> , 98,	3.3	13
659	Fragility of the dissipationless state in clean two-dimensional superconductors. <i>Nature Physics</i> , <b>2019</b> , 15, 947-953	16.2	13
658	All-2D ReS transistors with split gates for logic circuitry. <i>Scientific Reports</i> , <b>2019</b> , 9, 10354	4.9	13
657	Niobium diselenide superconducting photodetectors. <i>Applied Physics Letters</i> , <b>2019</b> , 114, 251103	3.4	13
656	Imaging Dirac fermions flow through a circular Veselago lens. <i>Physical Review B</i> , <b>2019</b> , 100,	3.3	13
655	Coarse-grained computational studies of supported bilayers: current problems and their root causes. <i>Journal of Physical Chemistry B</i> , <b>2014</b> , 118, 10643-52	3.4	13
654	Photovoltaic infrared photoresponse of the high-mobility graphene quantum Hall system due to cyclotron resonance. <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	13
653	Mathematical models and numerical simulations of a thermally expandable microballoon for plastic foaming. <i>Chemical Engineering Science</i> , <b>2013</b> , 104, 220-227	4.4	13

- 652 Interfacial ferroelectricity in rhombohedral-stacked bilayer transition metal dichalcogenides.. *Nature Nanotechnology*, **2022**, 28.7 13
- 651 Coupling Interlayer Excitons to Whispering Gallery Modes in van der Waals Heterostructures. *Nano Letters*, **2020**, 20, 6155-6161 11.5 13
- 650 Magnetic field detection limits for ultraclean graphene Hall sensors. *Nature Communications*, **2020**, 11, 4163 17.4 13
- 649 Encapsulated graphene-based Hall sensors on foil with increased sensitivity. *Physica Status Solidi (B): Basic Research*, **2016**, 253, 2316-2320 1.3 13
- 648 Interfacial Atomic Structure of Twisted Few-Layer Graphene. *Scientific Reports*, **2016**, 6, 21273 4.9 13
- 647 Comparison of device structures for the dielectric breakdown measurement of hexagonal boron nitride. *Applied Physics Letters*, **2016**, 109, 253111 3.4 13
- 646 Impact of substrate induced band tail states on the electronic and optical properties of MoS<sub>2</sub>. *Applied Physics Letters*, **2019**, 115, 261603 3.4 13
- 645 Multiscale Simulations of Flows of a Well-Entangled Polymer Melt in a ContractionExpansion Channel. *Macromolecules*, **2019**, 52, 547-564 5.5 13
- 644 Tunable Valley Splitting and Bipolar Operation in Graphene Quantum Dots. *Nano Letters*, **2021**, 21, 10681-1073 13
- 643 Designing the Bending Stiffness of 2D Material Heterostructures. *Advanced Materials*, **2021**, 33, e2007269 13
- 642 Moiré Trions in MoSe/WSe heterobilayers. *Nature Nanotechnology*, **2021**, 16, 1208-1213 28.7 13
- 641 Origins of genuine Ohmic van der Waals contact between indium and MoS<sub>2</sub>. *Npj 2D Materials and Applications*, **2021**, 5, 8.8 13
- 640 Dry-transferred CVD graphene for inverted spin valve devices. *Applied Physics Letters*, **2017**, 111, 152402 3.4 12
- 639 The bandgap of ZnSnN<sub>2</sub> with a disordered-wurtzite structure. *Japanese Journal of Applied Physics*, **2019**, 58, SC1034 1.4 12
- 638 Second harmonic generation in defective hexagonal boron nitride. *Journal of Physics Condensed Matter*, **2020**, 32, 19LT01 1.8 12
- 637 Three-Dimensional Imaging of a Single Dopant in a Crystal. *Physical Review Applied*, **2020**, 13, 4.3 12
- 636 Resonant Tunneling Spectroscopy to Probe the Giant Stark Effect in Atomically Thin Materials. *Advanced Materials*, **2020**, 32, e1906942 24 12
- 635 Tunable K Valley Populations in Hole-Doped Trilayer WSe<sub>2</sub>. *Physical Review Letters*, **2018**, 120, 107703 3.4 12

634	Photocatalytic activity of PbO <sub>2</sub> -type TiO <sub>2</sub> . <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2014</b> , 8, 822-826.	6.5	12
633	Impact of thermal annealing on graphene devices encapsulated in hexagonal boron nitride. <i>Physica Status Solidi (B): Basic Research</i> , <b>2014</b> , 251, 2545-2550	1.3	12
632	Phase Equilibria in the BBNB <sub>2</sub> O <sub>3</sub> System at 5 GPa. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 18642-18647.	4.7	12
631	Tubular membrane formation of binary giant unilamellar vesicles composed of cylinder and inverse-cone-shaped lipids. <i>Biophysical Journal</i> , <b>2013</b> , 105, 2074-81	2.9	12
630	From Diffusive to Ballistic Transport in Etched Graphene Constrictions and Nanoribbons. <i>Annalen Der Physik</i> , <b>2017</b> , 529, 1700082	2.6	12
629	Wall slip and melt-fracture of polystyrene melts in capillary flow. <i>Polymer</i> , <b>2010</b> , 51, 2221-2228	3.9	12
628	Isospin magnetism and spin-polarized superconductivity in Bernal bilayer graphene.. <i>Science</i> , <b>2022</b> , 375, eabm8386	33.3	12
627	Coherent dynamics and mapping of excitons in single-layer MoSe <sub>2</sub> and WSe <sub>2</sub> at the homogeneous limit. <i>Physical Review Materials</i> , <b>2020</b> , 4,	3.2	12
626	Flipping exciton angular momentum with chiral phonons in MoSe <sub>2</sub> /WSe <sub>2</sub> heterobilayers. <i>2D Materials</i> , <b>2020</b> , 7, 041002	5.9	12
625	Moiré Band Topology in Twisted Bilayer Graphene. <i>Nano Letters</i> , <b>2020</b> , 20, 6076-6083	11.5	12
624	Single digit parts-per-billion NO <sub>x</sub> detection using MoS <sub>2</sub> /hBN transistors. <i>Sensors and Actuators A: Physical</i> , <b>2020</b> , 315, 112247	3.9	12
623	Controllable Magnetic Proximity Effect and Charge Transfer in 2D Semiconductor and Double-Layered Perovskite Manganese Oxide van der Waals Heterostructure. <i>Advanced Materials</i> , <b>2020</b> , 32, e2003501	24	12
622	Trion-Mediated Förster Resonance Energy Transfer and Optical Gating Effect in WS <sub>2</sub> /hBN/MoSe <sub>2</sub> Heterojunction. <i>ACS Nano</i> , <b>2020</b> , 14, 13470-13477	16.7	12
621	Electrical tuning of optically active interlayer excitons in bilayer MoS <sub>2</sub> . <i>Nature Nanotechnology</i> , <b>2021</b> , 16, 888-893	28.7	12
620	Boron Nitride Nanosheets Improve Sensitivity and Reusability of Surface-Enhanced Raman Spectroscopy. <i>Angewandte Chemie</i> , <b>2016</b> , 128, 8545-8549	3.6	12
619	Probing hyperbolic polaritons using infrared attenuated total reflectance micro-spectroscopy. <i>MRS Communications</i> , <b>2018</b> , 8, 1418-1425	2.7	12
618	Signatures of van Hove Singularities Probed by the Supercurrent in a Graphene-hBN Superlattice. <i>Physical Review Letters</i> , <b>2018</b> , 121, 137701	7.4	12
617	Evidence for a single-layer van der Waals multiferroic.. <i>Nature</i> , <b>2022</b> , 602, 601-605	50.4	12



616	Carbon-Rich Domain in Hexagonal Boron Nitride: Carrier Mobility Degradation and Anomalous Bending of the Landau Fan Diagram in Adjacent Graphene. <i>Nano Letters</i> , <b>2019</b> , 19, 7282-7286	11.5	11
615	Magneto-spectroscopy of exciton Rydberg states in a CVD grown WSe2 monolayer. <i>Applied Physics Letters</i> , <b>2019</b> , 114, 232104	3.4	11
614	Logarithm Diameter Scaling and Carrier Density Independence of One-Dimensional Luttinger Liquid Plasmon. <i>Nano Letters</i> , <b>2019</b> , 19, 2360-2365	11.5	11
613	Misorientation-Controlled Cross-Plane Thermoelectricity in Twisted Bilayer Graphene. <i>Physical Review Letters</i> , <b>2020</b> , 125, 226802	7.4	11
612	Ultrahigh-resolution scanning microwave impedance microscopy of moiré lattices and superstructures. <i>Science Advances</i> , <b>2020</b> , 6,	14.3	11
611	Hexagonal Boron Nitride As an Ideal Substrate for Carbon Nanotube Photonics. <i>ACS Photonics</i> , <b>2020</b> , 7, 1773-1779	6.3	11
610	Electrically Controlled Spin Injection from Giant Rashba Spin-Orbit Conductor BiTeBr. <i>Nano Letters</i> , <b>2020</b> , 20, 4782-4791	11.5	11
609	Observation of Electrically Tunable van Hove Singularities in Twisted Bilayer Graphene from NanoARPES. <i>Advanced Materials</i> , <b>2020</b> , 32, e2001656	24	11
608	Harnessing Exciton-Exciton Annihilation in Two-Dimensional Semiconductors. <i>Nano Letters</i> , <b>2020</b> , 20, 1647-1653	11.5	11
607	In- and out-of-plane longitudinal acoustic-wave velocities and elastic moduli in h-BN from Brillouin scattering measurements. <i>Applied Physics Letters</i> , <b>2018</b> , 112, 051905	3.4	11
606	Imaging electron flow from collimating contacts in graphene. <i>2D Materials</i> , <b>2018</b> , 5, 021003	5.9	11
605	Imaging Bulk and Edge Transport near the Dirac Point in Graphene Moiré Superlattices. <i>Nano Letters</i> , <b>2018</b> , 18, 2530-2537	11.5	11
604	High-Pressure Softening of the Out-of-Plane A <sub>2u</sub> (Transverse-Optic) Mode of Hexagonal Boron Nitride Induced by Dynamical Buckling. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 17491-17497	3.8	11
603	Unconventional thermal metallic state of charge-neutral fermions in an insulator. <i>Nature Physics</i> , <b>2019</b> , 15, 954-959	16.2	11
602	Far-UV photoluminescence microscope for impurity domain in hexagonal-boron-nitride single crystals by high-pressure, high-temperature synthesis. <i>Npj 2D Materials and Applications</i> , <b>2019</b> , 3,	8.8	11
601	Flow-History-Dependent Behavior of Entangled Polymer Melt Flow Analyzed by Multiscale Simulation. <i>Journal of the Physical Society of Japan</i> , <b>2012</b> , 81, SA013	1.5	11
600	Fractional Chern insulators in magic-angle twisted bilayer graphene.. <i>Nature</i> , <b>2021</b> , 600, 439-443	50.4	11
599	Thermoelectric graphene photodetectors with sub-nanosecond response times at terahertz frequencies. <i>Nanophotonics</i> , <b>2020</b> , 10, 89-98	6.3	11

598	Competing Zero-Field Chern Insulators in Superconducting Twisted Bilayer Graphene. <i>Physical Review Letters</i> , <b>2021</b> , 127, 197701	7.4	11
597	Broadband electro-optic polarization conversion with atomically thin black phosphorus. <i>Science</i> , <b>2021</b> , 374, 448-453	33.3	11
596	Boundary-Induced Auxiliary Features in Scattering-Type Near-Field Fourier Transform Infrared Spectroscopy. <i>ACS Nano</i> , <b>2020</b> , 14, 1123-1132	16.7	11
595	Van der Waals Bound Organic/2D Insulator Hybrid Structures: Epitaxial Growth of Acene Films on BN(001) and the Influence of Surface Defects. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 38757-38767	8.5	11
594	Nano-imaging photoresponse in a moiré unit cell of minimally twisted bilayer graphene. <i>Nature Communications</i> , <b>2021</b> , 12, 1640	17.4	11
593	Tunable Ultrafast Thermal Relaxation in Graphene Measured by Continuous-Wave Photomixing. <i>Physical Review Letters</i> , <b>2016</b> , 117, 257401	7.4	11
592	Direct numerical simulation of a particle attachment to an immersed bubble. <i>Physics of Fluids</i> , <b>2016</b> , 28, 083301	4.4	11
591	Ultra-long wavelength Dirac plasmons in graphene capacitors. <i>JPhys Materials</i> , <b>2018</b> , 1, 01LT02	4.2	11
590	Magnetoresistance in Co-hBN-NiFe Tunnel Junctions Enhanced by Resonant Tunneling through Single Defects in Ultrathin hBN Barriers. <i>Nano Letters</i> , <b>2018</b> , 18, 6954-6960	11.5	11
589	Nonclassical Exciton Diffusion in Monolayer WSe <sub>2</sub> . <i>Physical Review Letters</i> , <b>2021</b> , 127, 076801	7.4	11
588	Boosting proximity spin-orbit coupling in graphene/WSe <sub>2</sub> heterostructures via hydrostatic pressure. <i>Npj 2D Materials and Applications</i> , <b>2021</b> , 5,	8.8	11
587	Tunable angle-dependent electrochemistry at twisted bilayer graphene with moiré flat bands.. <i>Nature Chemistry</i> , <b>2022</b> ,	17.6	11
586	Graphene bubbles and their role in graphene quantum transport. <i>Nanoscale</i> , <b>2017</b> , 9, 6041-6047	7.7	10
585	Anisotropic Strain-Induced Soliton Movement Changes Stacking Order and Band Structure of Graphene Multilayers: Implications for Charge Transport. <i>ACS Applied Nano Materials</i> , <b>2019</b> , 2, 6067-6075	5.6	10
584	In-plane anisotropy of the photon-helicity induced linear Hall effect in few-layer WTe <sub>2</sub> . <i>Physical Review B</i> , <b>2019</b> , 99,	3.3	10
583	Visualizing the Effect of an Electrostatic Gate with Angle-Resolved Photoemission Spectroscopy. <i>Nano Letters</i> , <b>2019</b> , 19, 2682-2687	11.5	10
582	First-Order Magnetic Phase Transition of Mobile Electrons in Monolayer MoS <sub>2</sub> . <i>Physical Review Letters</i> , <b>2020</b> , 124, 187602	7.4	10
581	Midgap radiative centers in carbon-enriched hexagonal boron nitride. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 13214-13219	11.5	10

580	Tunable Cherenkov Radiation of Phonon Polaritons in Silver Nanowire/Hexagonal Boron Nitride Heterostructures. <i>Nano Letters</i> , <b>2020</b> , 20, 2770-2777	11.5	10
579	Landau-Quantized Excitonic Absorption and Luminescence in a Monolayer Valley Semiconductor. <i>Physical Review Letters</i> , <b>2020</b> , 124, 097401	7.4	10
578	High-Frequency Limits of Graphene Field-Effect Transistors with Velocity Saturation. <i>Applied Sciences (Switzerland)</i> , <b>2020</b> , 10, 446	2.6	10
577	Tuning single-electron charging and interactions between compressible Landau level islands in graphene. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	10
576	Guided Modes of Anisotropic van der Waals Materials Investigated by near-Field Scanning Optical Microscopy. <i>ACS Photonics</i> , <b>2018</b> , 5, 1196-1201	6.3	10
575	Large Photothermal Effect in Sub-40 nm h-BN Nanostructures Patterned Via High-Resolution Ion Beam. <i>Small</i> , <b>2018</b> , 14, e1800072	11	10
574	Tomography of a Probe Potential Using Atomic Sensors on Graphene. <i>ACS Nano</i> , <b>2016</b> , 10, 10698-10705	16.7	10
573	Local environment of silicon in cubic boron nitride. <i>Journal of Applied Physics</i> , <b>2013</b> , 114, 233502	2.5	10
572	Large-Scale Simulations of Directed Self-Assembly with Simplified Model. <i>Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi]</i> , <b>2013</b> , 26, 809-816	0.7	10
571	Quantum oscillations in diamond field-effect transistors with a h-BN gate dielectric. <i>Physical Review Materials</i> , <b>2019</b> , 3,	3.2	10
570	Coherent feedback control of two-dimensional excitons. <i>Physical Review Research</i> , <b>2020</b> , 2,	3.9	10
569	Vertical Integration of 2D Building Blocks for All-2D Electronics. <i>Advanced Electronic Materials</i> , <b>2020</b> , 6, 2000550	6.4	10
568	Long-range ballistic transport of Brown-Zak fermions in graphene superlattices. <i>Nature Communications</i> , <b>2020</b> , 11, 5756	17.4	10
567	Ground and excited state exciton polarons in monolayer MoSe. <i>Journal of Chemical Physics</i> , <b>2020</b> , 153, 071101	3.9	10
566	Electrically controlled emission from singlet and triplet exciton species in atomically thin light-emitting diodes. <i>Physical Review B</i> , <b>2021</b> , 103,	3.3	10
565	Gate-defined Josephson junctions in magic-angle twisted bilayer graphene. <i>Nature Nanotechnology</i> , <b>2021</b> , 16, 760-763	28.7	10
564	Bosonic condensation of exciton-polaritons in an atomically thin crystal. <i>Nature Materials</i> , <b>2021</b> , 20, 1233-1239	12.39	10
563	Strong interaction between interlayer excitons and correlated electrons in WSe/WS moiré superlattice. <i>Nature Communications</i> , <b>2021</b> , 12, 3608	17.4	10

562	High-responsivity graphene photodetectors integrated on silicon microring resonators. <i>Nature Communications</i> , <b>2021</b> , 12, 3733	17.4	10
561	Band gap and broken chirality in single-layer and bilayer graphene. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2016</b> , 10, 46-57	2.5	10
560	Growth of vanadium dioxide thin films on hexagonal boron nitride flakes as transferrable substrates. <i>Scientific Reports</i> , <b>2019</b> , 9, 2857	4.9	10
559	Symmetry-Controlled Electron-Phonon Interactions in van der Waals Heterostructures. <i>ACS Nano</i> , <b>2019</b> , 13, 552-559	16.7	10
558	Probing the Electronic Properties of Monolayer MoS <sub>2</sub> via Interaction with Molecular Hydrogen. <i>Advanced Electronic Materials</i> , <b>2019</b> , 5, 1800591	6.4	10
557	Two-Dimensional Van der Waals Heterostructures for Synergistically Improved Surface-Enhanced Raman Spectroscopy. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 21985-21991	9.5	10
556	A tunable Fabry-Pérot quantum Hall interferometer in graphene. <i>Nature Nanotechnology</i> , <b>2021</b> , 16, 555-568	28.7	10
555	Anisotropic band flattening in graphene with one-dimensional superlattices. <i>Nature Nanotechnology</i> , <b>2021</b> , 16, 525-530	28.7	10
554	Intrinsic donor-bound excitons in ultraclean monolayer semiconductors. <i>Nature Communications</i> , <b>2021</b> , 12, 871	17.4	10
553	2D-3D integration of hexagonal boron nitride and a high- $\kappa$ dielectric for ultrafast graphene-based electro-absorption modulators. <i>Nature Communications</i> , <b>2021</b> , 12, 1070	17.4	10
552	Aharonov-Bohm effect in graphene-based Fabry-Pérot quantum Hall interferometers. <i>Nature Nanotechnology</i> , <b>2021</b> , 16, 563-569	28.7	10
551	Interphase Structures and Dynamics near Nanofiller Surfaces in Polymer Solutions. <i>Macromolecules</i> , <b>2018</b> , 51, 9462-9470	5.5	10
550	Emergent Dirac Gullies and Gully-Symmetry-Breaking Quantum Hall States in ABA Trilayer Graphene. <i>Physical Review Letters</i> , <b>2018</b> , 121, 167601	7.4	10
549	Optical gap and optically active intragap defects in cubic BN. <i>Physical Review B</i> , <b>2018</b> , 98,	3.3	10
548	Moiré magnetic phase in twisted double bilayer graphene. <i>Nature Physics</i> , <b>2022</b> , 18, 196-202	16.2	10
547	Intersubband Landau Level Couplings Induced by In-Plane Magnetic Fields in Trilayer Graphene. <i>Physical Review Letters</i> , <b>2017</b> , 119, 186802	7.4	9
546	Liquid Salt Transport Growth of Single Crystals of the Layered Dichalcogenides MoS <sub>2</sub> and WS <sub>2</sub> . <i>Crystal Growth and Design</i> , <b>2019</b> , 19, 5762-5767	3.5	9
545	Anomalous Quantum Metal in a 2D Crystalline Superconductor with Electronic Phase Nonuniformity. <i>Nano Letters</i> , <b>2019</b> , 19, 4126-4133	11.5	9

544	Nanospot angle-resolved photoemission study of Bernal-stacked bilayer graphene on hexagonal boron nitride: Band structure and local variation of lattice alignment. <i>Physical Review B</i> , <b>2019</b> , 99,	3.3	9
543	High-Quality Electrostatically Defined Hall Bars in Monolayer Graphene. <i>Nano Letters</i> , <b>2019</b> , 19, 2583-2587.	1.5	9
542	Broad range thickness identification of hexagonal boron nitride by colors. <i>Applied Physics Express</i> , <b>2019</b> , 12, 055007	2.4	9
541	Weak localization in boron nitride encapsulated bilayer MoS <sub>2</sub> . <i>Physical Review B</i> , <b>2019</b> , 99,	3.3	9
540	Transient Response of h-BN-Encapsulated Graphene Transistors: Signatures of Self-Heating and Hot-Carrier Trapping. <i>ACS Omega</i> , <b>2019</b> , 4, 4082-4090	3.9	9
539	Homogeneous heating of a sample space by a modified heating assembly in a belt-type high-pressure apparatus. <i>Review of Scientific Instruments</i> , <b>2015</b> , 86, 025101	1.7	9
538	Determination of the trigonal warping orientation in Bernal-stacked bilayer graphene via scanning tunneling microscopy. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	9
537	Optical Imaging and Spectroscopic Characterization of Self-Assembled Environmental Adsorbates on Graphene. <i>Nano Letters</i> , <b>2018</b> , 18, 2603-2608	11.5	9
536	Line shape of the Raman 2D peak of graphene in van der Waals heterostructures. <i>Physica Status Solidi (B): Basic Research</i> , <b>2016</b> , 253, 2326-2330	1.3	9
535	Tailoring Surface Properties via Functionalized Hydrofluorinated Graphene Compounds. <i>Advanced Materials</i> , <b>2019</b> , 31, e1903424	24	9
534	Realisation of topological zero-energy mode in bilayer graphene in zero magnetic field. <i>Scientific Reports</i> , <b>2017</b> , 7, 6466	4.9	9
533	Numerical investigations of the dynamics of two-component vesicles. <i>Journal of Physics Condensed Matter</i> , <b>2011</b> , 23, 284103	1.8	9
532	Asymmetric distribution of cone-shaped lipids in a highly curved bilayer revealed by a small angle neutron scattering technique. <i>Journal of Physics Condensed Matter</i> , <b>2011</b> , 23, 284104	1.8	9
531	Discharge behaviors and jet profiles during electrospinning of poly(vinyl alcohol). <i>Polymer Engineering and Science</i> , <b>2010</b> , 50, 1788-1796	2.3	9
530	Effect of Electric Current on Beads Formation in Electrospinning of Poly(Vinyl Alcohol). <i>International Polymer Processing</i> , <b>2008</b> , 23, 377-384	1	9
529	Visualizing broken symmetry and topological defects in a quantum Hall ferromagnet. <i>Science</i> , <b>2022</b> , 375, 321-326	33.3	9
528	Temporal Evolution of Low-Temperature Phonon Sidebands in Transition Metal Dichalcogenides. <i>ACS Photonics</i> , <b>2020</b> , 7, 2756-2764	6.3	9
527	Spectroscopy of a tunable moiré system with a correlated and topological flat band. <i>Nature Communications</i> , <b>2021</b> , 12, 2732	17.4	9

526	Anisotropic moiré optical transitions in twisted monolayer/bilayer phosphorene heterostructures. <i>Nature Communications</i> , <b>2021</b> , 12, 3947	17.4	9
525	Suppressed Out-of-Plane Polarizability of Free Excitons in Monolayer WSe. <i>ACS Nano</i> , <b>2019</b> , 13, 3218-3224	16.7	9
524	Low-Magnetic-Field Regime of a Gate-Defined Constriction in High-Mobility Graphene. <i>Nano Letters</i> , <b>2019</b> , 19, 635-642	11.5	9
523	High open-circuit voltage in transition metal dichalcogenide solar cells. <i>Nano Energy</i> , <b>2021</b> , 79, 105427	17.1	9
522	Low-energy band structure and even-odd layer number effect in AB-stacked multilayer graphene. <i>Scientific Reports</i> , <b>2018</b> , 8, 13018	4.9	9
521	Excitonic and Valley-Polarization Signatures of Fractional Correlated Electronic Phases in a WSe <sub>2</sub> /WS <sub>2</sub> Moiré Superlattice. <i>Physical Review Letters</i> , <b>2021</b> , 127, 037402	7.4	9
520	Charge-order-enhanced capacitance in semiconductor moiré superlattices. <i>Nature Nanotechnology</i> , <b>2021</b> , 16, 1068-1072	28.7	9
519	Unconventional sequence of correlated Chern insulators in magic-angle twisted bilayer graphene. <i>Nature Physics</i> ,	16.2	9
518	Stabilizing the metastable superhard material wurtzite boron nitride by three-dimensional networks of planar defects. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 11181-11186	11.5	8
517	Metallic Phase and Temperature Dependence of the $\nu_0$ Quantum Hall State in Bilayer Graphene. <i>Physical Review Letters</i> , <b>2019</b> , 122, 097701	7.4	8
516	Gate-tunable non-volatile photomemory effect in MoS <sub>2</sub> transistors. <i>2D Materials</i> , <b>2019</b> , 6, 025036	5.9	8
515	Band Engineering of Large-Twist-Angle Graphene/h-BN Moiré Superlattices with Pressure. <i>Physical Review Letters</i> , <b>2020</b> , 125, 226403	7.4	8
514	Gate-Defined Accumulation-Mode Quantum Dots in Monolayer and Bilayer WSe <sub>2</sub> . <i>Physical Review Applied</i> , <b>2020</b> , 13,	4.3	8
513	Electron-transport properties of degenerate ZnSnN <sub>2</sub> doped with oxygen. <i>BMC Materials</i> , <b>2020</b> , 2,	6.7	8
512	Electrically pumped WSe <sub>2</sub> -based light-emitting van der Waals heterostructures embedded in monolithic dielectric microcavities. <i>2D Materials</i> , <b>2020</b> , 7, 031006	5.9	8
511	Measuring Valley Polarization in Two-Dimensional Materials with Second-Harmonic Spectroscopy. <i>ACS Photonics</i> , <b>2020</b> , 7, 925-931	6.3	8
510	Metallic Carbon Nanotube Nanocavities as Ultracompact and Low-loss Fabry-Perot Plasmonic Resonators. <i>Nano Letters</i> , <b>2020</b> , 20, 2695-2702	11.5	8
509	How Clean Is Clean? Recipes for van der Waals Heterostructure Cleanliness Assessment. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 7701-7709	9.5	8



508	rf Quantum Capacitance of the Topological Insulator Bi <sub>2</sub> Se <sub>3</sub> in the Bulk Depleted Regime for Field-Effect Transistors. <i>Physical Review Applied</i> , <b>2018</b> , 9,	4.3	8
507	Room temperature gate-tunable negative differential resistance in MoS <sub>2</sub> /hBN/WSe <sub>2</sub> heterostructures <b>2016</b> ,		8
506	Nonreversible Transition from the Hexagonal to Wurtzite Phase of Boron Nitride under High Pressure: Optical Properties of the Wurtzite Phase. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 20167-20173	2.8	8
505	Large-scale dynamics of directed self-assembly defects on chemically pre-patterned surface <b>2013</b> ,		8
504	Etched graphene single electron transistors on hexagonal boron nitride in high magnetic fields. <i>Physica Status Solidi (B): Basic Research</i> , <b>2013</b> , 250, 2692-2696	1.3	8
503	Directed self-assembly of nanoparticles at the polymer surface by highly compressible supercritical carbon dioxide. <i>Soft Matter</i> , <b>2011</b> , 7, 9231	3.6	8
502	Shock compression of cubic boron nitride. <i>Journal of Applied Physics</i> , <b>2009</b> , 106, 033508	2.5	8
501	The development of shape- and crystallographic-preferred orientation in CaPtO <sub>3</sub> post-perovskite deformed in pure shear. <i>American Mineralogist</i> , <b>2011</b> , 96, 1630-1635	2.9	8
500	Probing dark exciton navigation through a local strain landscape in a WSe monolayer.. <i>Nature Communications</i> , <b>2022</b> , 13, 232	17.4	8
499	Autoionization and Dressing of Excited Excitons by Free Carriers in Monolayer WSe <sub>2</sub> . <i>Physical Review Letters</i> , <b>2020</b> , 125, 267401	7.4	8
498	Combined Minivalley and Layer Control in Twisted Double Bilayer Graphene. <i>Physical Review Letters</i> , <b>2020</b> , 125, 176801	7.4	8
497	Gate-Tunable Two-Dimensional Superlattices in Graphene. <i>Nano Letters</i> , <b>2020</b> , 20, 8046-8052	11.5	8
496	Microscopic Picture of Electron-Phonon Interaction in Two-Dimensional Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 9975-9982	6.4	8
495	Observation of Terahertz-Induced Magnetooscillations in Graphene. <i>Nano Letters</i> , <b>2020</b> , 20, 5943-5950	11.5	8
494	Optimal architecture for ultralow noise graphene transistors at room temperature. <i>Nanoscale</i> , <b>2020</b> , 12, 17762-17768	7.7	8
493	Near-Field Excited Archimedean-like Tiling Patterns in Phonon-Polaritonic Crystals. <i>ACS Nano</i> , <b>2021</b> , 15, 9134-9142	16.7	8
492	Superconductivity emerging from a stripe charge order in IrTe nanoflakes. <i>Nature Communications</i> , <b>2021</b> , 12, 3157	17.4	8
491	Flattening van der Waals heterostructure interfaces by local thermal treatment. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 231603	3.4	8



490	Enhanced shot noise at bilayer graphene-superconductor junction. <i>Physical Review B</i> , <b>2019</b> , 100, 035411	3.3	8
489	Oxidized-monolayer tunneling barrier for strong Fermi-level depinning in layered InSe transistors. <i>Npj 2D Materials and Applications</i> , <b>2019</b> , 3, 01001	8.8	8
488	Mobility Enhancement in Graphene by in situ Reduction of Random Strain Fluctuations. <i>Physical Review Letters</i> , <b>2020</b> , 124, 157701	7.4	8
487	Minibands in twisted bilayer graphene probed by magnetic focusing. <i>Science Advances</i> , <b>2020</b> , 6, eaay7838	14.3	8
486	Hyperbolic Cooper-Pair Polaritons in Planar Graphene/Cuprate Plasmonic Cavities. <i>Nano Letters</i> , <b>2021</b> , 21, 308-316	11.5	8
485	Proximity-induced spin-orbit coupling in graphene/Bi <sub>1.5</sub> Sb <sub>0.5</sub> Te <sub>1.7</sub> Se <sub>1.3</sub> heterostructures. <i>Physical Review B</i> , <b>2018</b> , 98, 041407	3.3	8
484	The growth and fluorescence of phthalocyanine monolayers, thin films and multilayers on hexagonal boron nitride. <i>Chemical Communications</i> , <b>2018</b> , 54, 12021-12024	5.8	8
483	Monolayer Boron Nitride: Hyperspectral Imaging in the Deep Ultraviolet. <i>Nano Letters</i> , <b>2021</b> , 21, 10133-10138	10.3	8
482	Orderly disorder in magic-angle twisted trilayer graphene.. <i>Science</i> , <b>2022</b> , 376, 193-199	33.3	8
481	Fabry-Pérot resonances and a crossover to the quantum Hall regime in ballistic graphene quantum point contacts. <i>Scientific Reports</i> , <b>2019</b> , 9, 3031	4.9	7
480	Electro-Optic Upconversion in van der Waals Heterostructures via Nonequilibrium Photocarrier Tunneling. <i>Advanced Materials</i> , <b>2020</b> , 32, e2001543	24	7
479	A hybrid structure light-emitting device based on a CsPbBr <sub>3</sub> nanoplate and two-dimensional materials. <i>Applied Physics Letters</i> , <b>2020</b> , 116, 263103	3.4	7
478	Spectrally Tunable, Large Raman Enhancement from Nonradiative Energy Transfer in the van der Waals Heterostructure. <i>ACS Photonics</i> , <b>2020</b> , 7, 519-527	6.3	7
477	Multiscale Simulation of Polymer Melt Spinning by Using the Dumbbell Model. <i>Nihon Reoroji Gakkaishi</i> , <b>2017</b> , 44, 265-280	0.8	7
476	Impact ionization and transport properties of hexagonal boron nitride in a constant-voltage measurement. <i>Physical Review B</i> , <b>2018</b> , 97, 041407	3.3	7
475	Rashba Interaction and Local Magnetic Moments in a Graphene-BN Heterostructure Intercalated with Au. <i>Physical Review Letters</i> , <b>2016</b> , 117, 076603	7.4	7
474	Higher refractive index and lower wavelength dispersion of SiO <sub>2</sub> glass by structural ordering evolution via densification at a higher temperature. <i>RSC Advances</i> , <b>2016</b> , 6, 19144-19149	3.7	7
473	Aharonov-Bohm oscillations and magnetic focusing in ballistic graphene rings. <i>Physical Review B</i> , <b>2017</b> , 96, 041407	3.3	7

472	Spin-orbit-driven ferromagnetism at half moiré filling in magic-angle twisted bilayer graphene.. <i>Science</i> , <b>2022</b> , 375, eabh2889	33.3	7
471	Cathodoluminescence enhancement and quenching in type-I van der Waals heterostructures: Cleanliness of the interfaces and defect creation. <i>Physical Review Materials</i> , <b>2019</b> , 3,	3.2	7
470	Electrical switching of valley polarization in monolayer semiconductors. <i>Physical Review Materials</i> , <b>2020</b> , 4,	3.2	7
469	Spatial coherence of room-temperature monolayer WSe exciton-polaritons in a trap. <i>Nature Communications</i> , <b>2021</b> , 12, 6406	17.4	7
468	Interlayer exciton mediated second harmonic generation in bilayer MoS. <i>Nature Communications</i> , <b>2021</b> , 12, 6894	17.4	7
467	Unraveling Strain Gradient Induced Electromechanical Coupling in Twisted Double Bilayer Graphene Moiré Superlattices. <i>Advanced Materials</i> , <b>2021</b> , 33, e2105879	24	7
466	Hexagonal Boron Nitride Synthesized at Atmospheric Pressure Using Metal Alloy Solvents: Evaluation as a Substrate for 2D Materials. <i>Nano Letters</i> , <b>2020</b> , 20, 735-740	11.5	7
465	Energy Transport by Radiation in Hyperbolic Material Comparable to Conduction. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 1905830	15.6	7
464	Astability Bistability in van der Waals Tunnel Diode for Voltage Controlled Oscillator and Memory Applications. <i>ACS Nano</i> , <b>2020</b> , 14, 15678-15687	16.7	7
463	Visualization and Manipulation of Bilayer Graphene Quantum Dots with Broken Rotational Symmetry and Nontrivial Topology. <i>Nano Letters</i> , <b>2020</b> , 20, 8682-8688	11.5	7
462	Valley polarization of singlet and triplet trions in a WS monolayer in magnetic fields. <i>Physical Chemistry Chemical Physics</i> , <b>2020</b> , 22, 19155-19161	3.6	7
461	Terahertz Photogalvanics in Twisted Bilayer Graphene Close to the Second Magic Angle. <i>Nano Letters</i> , <b>2020</b> , 20, 7152-7158	11.5	7
460	Bulk valley transport and Berry curvature spreading at the edge of flat bands. <i>Nature Communications</i> , <b>2020</b> , 11, 5548	17.4	7
459	High-Performance Vertical Organic Transistors of Sub-5 nm Channel Length. <i>Nano Letters</i> , <b>2021</b> , 21, 4430-4436	11.5	7
458	Rashba valleys and quantum Hall states in few-layer black arsenic. <i>Nature</i> , <b>2021</b> , 593, 56-60	50.4	7
457	Visualizing delocalized correlated electronic states in twisted double bilayer graphene. <i>Nature Communications</i> , <b>2021</b> , 12, 2516	17.4	7
456	Twisted Bilayer Graphene: A Versatile Fabrication Method and the Detection of Variable Nanometric Strain Caused by Twist-Angle Disorder. <i>ACS Applied Nano Materials</i> , <b>2021</b> , 4, 1858-1866	5.6	7
455	Tunable Optical Properties of Thin Films Controlled by the Interface Twist Angle. <i>Nano Letters</i> , <b>2021</b> , 21, 2832-2839	11.5	7

454	Direct synthesis of high-quality perovskite nanocrystals on a flexible substrate and deterministic transfer. <i>Science Bulletin</i> , <b>2018</b> , 63, 1576-1582	10.6	7
453	Photo-thermoelectric detection of cyclotron resonance in asymmetrically carrier-doped graphene two-terminal device. <i>Applied Physics Letters</i> , <b>2018</b> , 113, 103102	3.4	7
452	Imaging local discharge cascades for correlated electrons in WS <sub>2</sub> /WSe <sub>2</sub> moiré superlattices. <i>Nature Physics</i> ,	16.2	7
451	Gate-tunable plasmons in mixed-dimensional van der Waals heterostructures. <i>Nature Communications</i> , <b>2021</b> , 12, 5039	17.4	7
450	Dielectric Breakdown in Single-Crystal Hexagonal Boron Nitride. <i>ACS Applied Electronic Materials</i> , <b>2021</b> , 3, 3547-3554	4	7
449	Observation of interband collective excitations in twisted bilayer graphene. <i>Nature Physics</i> ,	16.2	7
448	Nanoscale lattice dynamics in hexagonal boron nitride moiré superlattices. <i>Nature Communications</i> , <b>2021</b> , 12, 5741	17.4	7
447	Probing of negatively charged and neutral excitons in MoS <sub>2</sub> /hBN and hBN/MoS <sub>2</sub> /hBN van der Waals heterostructures. <i>Nanotechnology</i> , <b>2020</b> ,	3.4	7
446	Intelligent infrared sensing enabled by tunable moiré quantum geometry.. <i>Nature</i> , <b>2022</b> , 604, 266-272	50.4	7
445	Optical absorption of interlayer excitons in transition-metal dichalcogenide heterostructures.. <i>Science</i> , <b>2022</b> , 376, 406-410	33.3	7
444	Magnetic-field-induced splitting and polarization of monolayer-based valley exciton polaritons. <i>Physical Review B</i> , <b>2019</b> , 100,	3.3	6
443	Strong and tunable interlayer coupling of infrared-active phonons to excitons in van der Waals heterostructures. <i>Physical Review B</i> , <b>2019</b> , 99,	3.3	6
442	Tunneling Spectroscopy of Quantum Hall States in Bilayer Graphene p-n Junctions. <i>Physical Review Letters</i> , <b>2019</b> , 122, 146801	7.4	6
441	Manipulation of room-temperature valley-coherent exciton-polaritons in atomically thin crystals by real and artificial magnetic fields. <i>2D Materials</i> , <b>2020</b> , 7, 035025	5.9	6
440	Long lifetime of the E1u in-plane infrared-active modes of h-BN. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	6
439	Phonon-exciton Interactions in WSe under a quantizing magnetic field. <i>Nature Communications</i> , <b>2020</b> , 11, 3104	17.4	6
438	Anomalous Coulomb Drag between InAs Nanowire and Graphene Heterostructures. <i>Physical Review Letters</i> , <b>2020</b> , 124, 116803	7.4	6
437	Viscosity Landscape of Phase-Separated Lipid Membrane Estimated from Fluid Velocity Field. <i>Biophysical Journal</i> , <b>2020</b> , 118, 1576-1587	2.9	6

436	Mechanical Properties of Cubic-BN(111) Bulk Single Crystal Evaluated by Nanoindentation. <i>Physica Status Solidi (B): Basic Research</i> , <b>2018</b> , 255, 1700473	1.3	6
435	Large, non-saturating magnetoresistance in single layer chemical vapor deposition graphene with an h-BN capping layer. <i>Carbon</i> , <b>2018</b> , 136, 211-216	10.4	6
434	A corner reflector of graphene Dirac fermions as a phonon-scattering sensor. <i>Nature Communications</i> , <b>2019</b> , 10, 2428	17.4	6
433	InSb Nanowires with Built-In GaInSb Tunnel Barriers for Majorana Devices. <i>Nano Letters</i> , <b>2017</b> , 17, 721-727	1.5	6
432	Fabrication of Gate-tunable Graphene Devices for Scanning Tunneling Microscopy Studies with Coulomb Impurities. <i>Journal of Visualized Experiments</i> , <b>2015</b> , e52711	1.6	6
431	Bi-quadratic interlayer exchange coupling in Co <sub>2</sub> MnSi/Ag/Co <sub>2</sub> MnSi pseudo spin-valve. <i>Journal of Applied Physics</i> , <b>2011</b> , 110, 123914	2.5	6
430	Evidence for a monolayer excitonic insulator. <i>Nature Physics</i> , <b>2022</b> , 18, 87-93	16.2	6
429	High- dark hyperbolic phonon-polaritons in hexagonal boron nitride nanostructures. <i>Nanophotonics</i> , <b>2020</b> , 9,	6.3	6
428	Interaction-driven band flattening and correlated phases in twisted bilayer graphene. <i>Nature Physics</i> ,	16.2	6
427	Exciton-polaron Rydberg states in monolayer MoSe and WSe. <i>Nature Communications</i> , <b>2021</b> , 12, 6131	17.4	6
426	Creating Quantum Emitters in Hexagonal Boron Nitride Deterministically on Chip-Compatible Substrates. <i>Nano Letters</i> , <b>2021</b> , 21, 8182-8189	11.5	6
425	Quasi-1D exciton channels in strain-engineered 2D materials. <i>Science Advances</i> , <b>2021</b> , 7, eabj3066	14.3	6
424	Up- and Down-Conversion between Intra- and Intervalley Excitons in Waveguide Coupled Monolayer WSe. <i>ACS Nano</i> , <b>2020</b> , 14, 10503-10509	16.7	6
423	Emergence of orbital angular moment at van Hove singularity in graphene/h-BN moiré superlattice. <i>Nature Communications</i> , <b>2020</b> , 11, 5380	17.4	6
422	Neutral and charged dark excitons in monolayer WS. <i>Nanoscale</i> , <b>2020</b> , 12, 18153-18159	7.7	6
421	Single-photon emission from two-dimensional hexagonal boron nitride annealed in a carbon-rich environment. <i>Applied Physics Letters</i> , <b>2020</b> , 117, 244002	3.4	6
420	Shell Filling and Trigonal Warping in Graphene Quantum Dots. <i>Physical Review Letters</i> , <b>2021</b> , 126, 147703	3.4	6
419	Vanishing Thermal Equilibration for Hole-Conjugate Fractional Quantum Hall States in Graphene. <i>Physical Review Letters</i> , <b>2021</b> , 126, 216803	7.4	6

4 <sup>18</sup>	Tunable high-temperature itinerant antiferromagnetism in a van der Waals magnet. <i>Nature Communications</i> , <b>2021</b> , 12, 2844	17.4	6
4 <sup>17</sup>	Out-of-Plane Dielectric Susceptibility of Graphene in Twistrionic and Bernal Bilayers. <i>Nano Letters</i> , <b>2021</b> , 21, 6678-6683	11.5	6
4 <sup>16</sup>	Effect of Substrate Coupling on the Performance and Variability of Monolayer MoS <sub>2</sub> Transistors. <i>IEEE Electron Device Letters</i> , <b>2019</b> , 40, 135-138	4.4	6
4 <sup>15</sup>	Electrical control of anisotropic and tightly bound excitons in bilayer phosphorene. <i>Physical Review B</i> , <b>2021</b> , 103,	3.3	6
4 <sup>14</sup>	Synthesis of CaSnN via a High-Pressure Metathesis Reaction and the Properties of II-Sn-N (II = Ca, Mg, Zn) Semiconductors. <i>Inorganic Chemistry</i> , <b>2021</b> , 60, 1773-1779	5.1	6
4 <sup>13</sup>	Accurate Extraction of Schottky Barrier Height and Universality of Fermi Level De-Pinning of van der Waals Contacts. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2010513	15.6	6
4 <sup>12</sup>	Tuning Supercurrent in Josephson Field-Effect Transistors Using h-BN Dielectric. <i>Nano Letters</i> , <b>2021</b> , 21, 1915-1920	11.5	6
4 <sup>11</sup>	Double carrier transport in electron-doped region in black phosphorus FET. <i>Applied Physics Letters</i> , <b>2018</b> , 113, 193101	3.4	6
4 <sup>10</sup>	Tunneling spectroscopy of graphene nanodevices coupled to large-gap superconductors. <i>Physical Review B</i> , <b>2018</b> , 98,	3.3	6
4 <sup>09</sup>	Interfacial Synthesis of Layer-Oriented 2D Conjugated Metal-Organic Framework Films toward Directional Charge Transport. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 13624-13632	16.4	6
4 <sup>08</sup>	New method of transport measurements on van der Waals heterostructures under pressure. <i>Journal of Applied Physics</i> , <b>2021</b> , 130, 064303	2.5	6
4 <sup>07</sup>	Optical read-out of Coulomb staircases in a moiré superlattice via trapped interlayer trions. <i>Nature Nanotechnology</i> , <b>2021</b> , 16, 1237-1243	28.7	6
4 <sup>06</sup>	Spin-valley coupling in single-electron bilayer graphene quantum dots. <i>Nature Communications</i> , <b>2021</b> , 12, 5250	17.4	6
4 <sup>05</sup>	Dry transfer of CVD graphene using MoS <sub>2</sub> -based stamps. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2017</b> , 11, 1700136	2.5	5
4 <sup>04</sup>	Rhenium dinitride: Carrier transport in a novel transition metal dinitride layered crystal. <i>APL Materials</i> , <b>2019</b> , 7, 101103	5.7	5
4 <sup>03</sup>	Ballistic transport experiment detects Fermi surface anisotropy of graphene. <i>Physical Review B</i> , <b>2019</b> , 99,	3.3	5
4 <sup>02</sup>	Quantum parity Hall effect in Bernal-stacked trilayer graphene. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 10286-10290	11.5	5
4 <sup>01</sup>	Low-energy band structure in Bernal stacked six-layer graphene: Landau fan diagram and resistance ridge. <i>Physical Review B</i> , <b>2019</b> , 99,	3.3	5

- 400 Electrostatic Detection of Shubnikov-de Haas Oscillations in Bilayer Graphene by Coulomb Resonances in Gate-Defined Quantum Dots. *Physica Status Solidi (B): Basic Research*, **2020**, 257, 2000333<sup>1.3</sup> 5
- 399 Momentum-resolved view of highly tunable many-body effects in a graphene/hBN field-effect device. *Physical Review B*, **2020**, 101, 3.3 5
- 398 Single-Carrier Transport in Graphene/hBN Superlattices. *Nano Letters*, **2020**, 20, 2551-2557 11.5 5
- 397 Localized Nanoresonator Mode in Plasmonic Microcavities. *Physical Review Letters*, **2020**, 124, 093901 7.4 5
- 396 Eulerian/Lagrangian formulation for the elasto-capillary deformation of a flexible fibre. *Journal of Computational Physics*, **2020**, 409, 109324 4.1 5
- 395 On-chip terahertz modulation and emission with integrated graphene junctions. *Applied Physics Letters*, **2020**, 116, 161104 3.4 5
- 394 Observation of Quantized Exciton Energies in Monolayer WSe<sub>2</sub> under a Strong Magnetic Field. *Physical Review X*, **2020**, 10, 9.1 5
- 393 Landau Level Diagram and the Continuous Rotational Symmetry Breaking in Trilayer Graphene. *Physical Review Letters*, **2018**, 121, 056801 7.4 5
- 392 Reliable Nonvolatile Memory Black Phosphorus Ferroelectric Field-Effect Transistors with van der Waals Buffer. *ACS Applied Materials & Interfaces*, **2019**, 11, 42358-42364 9.5 5
- 391 Direct numerical simulation of an arbitrarily shaped particle at a fluidic interface. *Physical Review E*, **2017**, 95, 063107 2.4 5
- 390 Luminescence investigations of cubic boron nitride doped with beryllium. *Physics of the Solid State*, **2007**, 49, 1884-1890 0.8 5
- 389 Excitonic transport driven by repulsive dipolar interaction in a van der Waals heterostructure.. *Nature Photonics*, **2022**, 16, 79-85 33.9 5
- 388 Diffuse interface model to simulate the rise of a fluid droplet across a cloud of particles. *Physical Review Fluids*, **2018**, 3, 2.8 5
- 387 Spin-Orbit-Enhanced Robustness of Supercurrent in Graphene/WS<sub>2</sub> Josephson Junctions. *Physical Review Letters*, **2020**, 125, 266801 7.4 5
- 386 Kondo effect and spin-orbit coupling in graphene quantum dots. *Nature Communications*, **2021**, 12, 600417.4 5
- 385 Open-Cavity in Closed-Cycle Cryostat as a Quantum Optics Platform. *PRX Quantum*, **2021**, 2, 6.1 5
- 384 Triplet Excitation and Electroluminescence from a Supramolecular Monolayer Embedded in a Boron Nitride Tunnel Barrier. *Nano Letters*, **2020**, 20, 278-283 11.5 5
- 383 Graphene Electromechanical Water Sensor: The Wetristor. *Advanced Electronic Materials*, **2020**, 6, 1901167.4 5

382	Low-temperature p-type ohmic contact to WSe <sub>2</sub> using p+-MoS <sub>2</sub> /WSe <sub>2</sub> van der Waals interface. <i>Applied Physics Letters</i> , <b>2020</b> , 117, 153101	3.4	5
381	HeteromoirEngineering on Magnetic Bloch Transport in Twisted Graphene Superlattices. <i>Nano Letters</i> , <b>2020</b> , 20, 7572-7579	11.5	5
380	Tunneling Spectroscopy in Carbon Nanotube-Hexagonal Boron Nitride-Carbon Nanotube Heterojunctions. <i>Nano Letters</i> , <b>2020</b> , 20, 6712-6718	11.5	5
379	Exciton diffusion in hBN-encapsulated monolayer MoSe <sub>2</sub> . <i>Physical Review B</i> , <b>2020</b> , 102,	3.3	5
378	Fluorescence and Electroluminescence of J-Aggregated Polythiophene Monolayers on Hexagonal Boron Nitride. <i>ACS Nano</i> , <b>2020</b> , 14, 13886-13893	16.7	5
377	Excitonic Complexes in n-Doped WS Monolayer. <i>Nano Letters</i> , <b>2021</b> , 21, 2519-2525	11.5	5
376	Superconductivity in type-II Weyl-semimetal WTe <sub>2</sub> induced by a normal metal contact. <i>Journal of Applied Physics</i> , <b>2021</b> , 129, 113903	2.5	5
375	Resonant Tunneling Due to van der Waals Quantum-Well States of Few-Layer WSe in WSe/h-BN/p-MoS Junction. <i>Nano Letters</i> , <b>2021</b> , 21, 3929-3934	11.5	5
374	Quantum Hall Valley Splitters and a Tunable Mach-Zehnder Interferometer in Graphene. <i>Physical Review Letters</i> , <b>2021</b> , 126, 146803	7.4	5
373	Deterministic transfer of optical-quality carbon nanotubes for atomically defined technology. <i>Nature Communications</i> , <b>2021</b> , 12, 3138	17.4	5
372	Optical Signatures of Periodic Charge Distribution in a Mott-like Correlated Insulator State. <i>Physical Review X</i> , <b>2021</b> , 11,	9.1	5
371	The limits of near field immersion microwave microscopy evaluated by imaging bilayer graphene moiré patterns. <i>Nature Communications</i> , <b>2021</b> , 12, 2980	17.4	5
370	Evidence for Moiré Trions in Twisted MoSe Homobilayers. <i>Nano Letters</i> , <b>2021</b> , 21, 4461-4468	11.5	5
369	Engineering Crossed Andreev Reflection in Double-Bilayer Graphene. <i>Nano Letters</i> , <b>2019</b> , 19, 9002-9007	11.5	5
368	Effect of gap width on electron transport through quantum point contact in hBN/graphene/hBN in the quantum Hall regime. <i>Applied Physics Letters</i> , <b>2019</b> , 114, 023101	3.4	5
367	ReS <sub>2</sub> /h-BN/Graphene Heterostructure Based Multifunctional Devices: Tunneling Diodes, FETs, Logic Gates, and Memory. <i>Advanced Electronic Materials</i> , <b>2021</b> , 7, 2000925	6.4	5
366	Pulsed-gate spectroscopy of single-electron spin states in bilayer graphene quantum dots. <i>Physical Review B</i> , <b>2021</b> , 103,	3.3	5
365	Measurement of Conduction and Valence Bands g-Factors in a Transition Metal Dichalcogenide Monolayer. <i>Physical Review Letters</i> , <b>2021</b> , 126, 067403	7.4	5



- 364 Multilayer graphene shows intrinsic resistance peaks in the carrier density dependence. *Scientific Reports*, **2018**, 8, 13992 4.9 5
- 363 Landau Velocity for Collective Quantum Hall Breakdown in Bilayer Graphene. *Physical Review Letters*, **2018**, 121, 136804 7.4 5
- 362 Competing correlated states and abundant orbital magnetism in twisted monolayer-bilayer graphene. *Nature Communications*, **2021**, 12, 4727 17.4 5
- 361 Narrow-band high-lying excitons with negative-mass electrons in monolayer WSe. *Nature Communications*, **2021**, 12, 5500 17.4 5
- 360 Charged Bosons Made of Fermions in Bilayer Structures with Strong Metallic Screening. *Nano Letters*, **2021**, 21, 7669-7675 11.5 5
- 359 Quasi 1D Electronic Transport in a 2D Magnetic Semiconductor.. *Advanced Materials*, **2022**, e2109759 24 5
- 358 Topological charge density waves at half-integer filling of a moiré superlattice. *Nature Physics*, **2022**, 18, 42-47 16.2 5
- 357 Deep-ultraviolet electroluminescence and photocurrent generation in graphene/hBN/graphene heterostructures. *Nature Communications*, **2021**, 12, 7134 17.4 5
- 356 Light-induced ferromagnetism in moiré superlattices.. *Nature*, **2022**, 604, 468-473 50.4 5
- 355 Shot noise detection in hBN-based tunnel junctions. *Applied Physics Letters*, **2017**, 110, 133106 3.4 4
- 354 Layer Polarizability and Easy-Axis Quantum Hall Ferromagnetism in Bilayer Graphene. *Nano Letters*, **2017**, 17, 3416-3420 11.5 4
- 353 Synthesis of Large Rare Earth Element Germanate Pyrochlore Single Crystals at High Pressure. *Crystal Growth and Design*, **2019**, 19, 5538-5543 3.5 4
- 352 Barrier Formation at the Contacts of Vanadium Dioxide and Transition-Metal Dichalcogenides. *ACS Applied Materials & Interfaces*, **2019**, 11, 36871-36879 9.5 4
- 351 Ultrafast dynamics of bright and dark positive trions for valley polarization in monolayer WSe<sub>2</sub>. *Physical Review B*, **2019**, 99, 3.3 4
- 350 Graphene nanoribbons on hexagonal boron nitride: Deposition and transport characterization. *Applied Physics Letters*, **2019**, 114, 173101 3.4 4
- 349 Understanding the Memory Window Overestimation of 2D Materials Based Floating Gate Type Memory Devices by Measuring Floating Gate Voltage. *Small*, **2020**, 16, e2004907 11 4
- 348 Cyclotron Resonance Study of Monolayer Graphene under Double Moiré Potentials. *Nano Letters*, **2020**, 20, 4566-4572 11.5 4
- 347 Ultrasensitive Photoresponse of Graphene Quantum Dots in the Coulomb Blockade Regime to THz Radiation. *Nano Letters*, **2020**, 20, 5408-5414 11.5 4

346	Imaging Andreev Reflection in Graphene. <i>Nano Letters</i> , <b>2020</b> , 20, 4890-4894	11.5	4
345	Carbon annealed HPHT-hexagonal boron nitride: Exploring defect levels using 2D materials combined through van der Waals interface. <i>Carbon</i> , <b>2020</b> , 167, 785-791	10.4	4
344	Observation of the Interlayer Exciton Gases in WSe <sub>2</sub> -p:WSe <sub>2</sub> Heterostructures. <i>ACS Photonics</i> , <b>2020</b> , 7, 1622-1627	6.3	4
343	A Mechanically Tunable Quantum Dot in a Graphene Break Junction. <i>Nano Letters</i> , <b>2020</b> , 20, 4924-4931	11.5	4
342	Comprehensive Electrostatic Modeling of Exposed Quantum Dots in Graphene/Hexagonal Boron Nitride Heterostructures. <i>Nanomaterials</i> , <b>2020</b> , 10,	5.4	4
341	Intrinsic resistance peaks in AB-stacked multilayer graphene with odd number of layers. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	4
340	Persistent and reversible electrostatic control of doping in graphene/hexagonal boron nitride heterostructures. <i>Journal of Applied Physics</i> , <b>2020</b> , 127, 044303	2.5	4
339	Interplay of excitonic complexes in p-doped WSe <sub>2</sub> monolayers. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	4
338	Tunneling spectroscopy of localized states of WS <sub>2</sub> barriers in vertical van der Waals heterostructures. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	4
337	Tunable Photodetectors via In Situ Thermal Conversion of TiS to TiO. <i>Nanomaterials</i> , <b>2020</b> , 10,	5.4	4
336	Band evolution of two-dimensional transition metal dichalcogenides under electric fields. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 083104	3.4	4
335	Freezing of stressed bilayers and vesicles. <i>Soft Matter</i> , <b>2014</b> , 10, 257-61	3.6	4
334	Oxygen segregation at coherent grain boundaries of cubic boron nitride. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 091607	3.4	4
333	Phase Inversion of Pickering Foam and Dry Water Stabilized by Microbowls. <i>Chemistry Letters</i> , <b>2011</b> , 40, 136-137	1.7	4
332	Self-Consistent Field Theory and Density Functional Theory for Self-Organization in Polymeric Systems. <i>Journal of the Physical Society of Japan</i> , <b>2009</b> , 78, 041009	1.5	4
331	High frequency ESR of native point defects in beryllium doped c-BN single crystals. <i>Physica Status Solidi A</i> , <b>2004</b> , 201, 2591-2598		4
330	Magnetic Phase Transitions and Magnetoelastic Coupling in a Two-Dimensional Stripy Antiferromagnet.. <i>Nano Letters</i> , <b>2022</b> ,	11.5	4
329	Crossover between strongly coupled and weakly coupled exciton superfluids.. <i>Science</i> , <b>2022</b> , 375, 205-209	25.3	4

- 328 Hexagonal boron nitride as a low-loss dielectric for superconducting quantum circuits and qubits.. *Nature Materials*, **2022**, 27 4
- 327 Accessing the Spectral Function in a Current-Carrying Device. *Physical Review Letters*, **2020**, 125, 2364037.4 4
- 326 Probing the wave functions of correlated states in magic angle graphene. *Physical Review Research*, **2020**, 2, 3.9 4
- 325 Demonstration of a polariton step potential by local variation of light-matter coupling in a van-der-Waals heterostructure. *Optics Express*, **2020**, 28, 18649-18657 3.3 4
- 324 Upconversion of Light into Bright Intravalley Excitons via Dark Intervalley Excitons in hBN-Encapsulated WSe Monolayers. *ACS Nano*, **2021**, 16.7 4
- 323 Light helicity detector based on 2D magnetic semiconductor CrI. *Nature Communications*, **2021**, 12, 687417.4 4
- 322 Versatile Post-Doping toward Two-Dimensional Semiconductors. *ACS Nano*, **2021**, 16.7 4
- 321 Materials science research of boron nitride obtained at high pressure and high temperature. *Journal of the Ceramic Society of Japan*, **2020**, 128, 620-626 1 4
- 320 High carrier mobility in graphene doped using a monolayer of tungsten oxyselenide. *Nature Electronics*, **2021**, 4, 731-739 28.4 4
- 319 Tailoring the Band Structure of Twisted Double Bilayer Graphene with Pressure. *Nano Letters*, **2021**, 21, 8777-8784 11.5 4
- 318 Investigation of laser-induced-metal phase of MoTe and its contact property via scanning gate microscopy. *Nanotechnology*, **2020**, 31, 205205 3.4 4
- 317 Unveiling the Optical Emission Channels of Monolayer Semiconductors Coupled to Silicon Nanoantennas. *ACS Photonics*, **2020**, 7, 3106-3115 6.3 4
- 316 Generalized Protein-Repellent Properties of Ultrathin Homopolymer Films. *Macromolecules*, **2020**, 53, 6547-6554 5.5 4
- 315 Use of the Indirect Photoluminescence Peak as an Optical Probe of Interface Defectivity in MoS<sub>2</sub>. *Advanced Materials Interfaces*, **2020**, 7, 2000413 4.6 4
- 314 Integration of multi-layer black phosphorus into photoconductive antennas for THz emission. *Journal of Applied Physics*, **2020**, 128, 063104 2.5 4
- 313 Zero Crossing Steps and Anomalous Shapiro Maps in Graphene Josephson Junctions. *Nano Letters*, **2020**, 20, 6998-7003 11.5 4
- 312 Multioperation-Mode Light-Emitting Field-Effect Transistors Based on van der Waals Heterostructure. *Advanced Materials*, **2020**, 32, e2003567 24 4
- 311 High performance ambipolar MoS<sub>2</sub> transistor enabled by indium edge contacts. *Nanotechnology*, **2021**, 3.4 4

310	Controlling exciton many-body states by the electric-field effect in monolayer MoS <sub>2</sub> . <i>Physical Review Research</i> , <b>2021</b> , 3,	3.9	4
309	Electron transport in dual-gated three-layer MoS <sub>2</sub> . <i>Physical Review Research</i> , <b>2021</b> , 3,	3.9	4
308	Experimental Determination of the Energy per Particle in Partially Filled Landau Levels. <i>Physical Review Letters</i> , <b>2021</b> , 126, 156802	7.4	4
307	Emergence of a noncollinear magnetic state in twisted bilayer CrI <sub>3</sub>		4
306	Photoactive Electro-Controlled Visual Perception Memory for Emulating Synaptic Metaplasticity and Hebbian Learning. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2105345	15.6	4
305	Temperature dependent moiré trapping of interlayer excitons in MoSe <sub>2</sub> -WSe <sub>2</sub> heterostructures. <i>Npj 2D Materials and Applications</i> , <b>2021</b> , 5,	8.8	4
304	Topological valley transport at the curved boundary of a folded bilayer graphene. <i>Communications Physics</i> , <b>2019</b> , 2,	5.4	4
303	Tailoring Single- and Double-Sided Fluorination of Bilayer Graphene via Substrate Interactions. <i>Nano Letters</i> , <b>2021</b> , 21, 891-898	11.5	4
302	Mapping current profiles of point-contacted graphene devices using single-spin scanning magnetometer. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 033101	3.4	4
301	Probing interlayer interaction via chiral phonons in layered honeycomb materials. <i>Physical Review B</i> , <b>2021</b> , 103,	3.3	4
300	Semiconductor-less vertical transistor with I/I of 10. <i>Nature Communications</i> , <b>2021</b> , 12, 1000	17.4	4
299	Direct Observation of Charge Transfer between NO <sub>x</sub> and Monolayer MoS <sub>2</sub> by Operando Scanning Photoelectron Microscopy. <i>ACS Applied Nano Materials</i> , <b>2021</b> , 4, 3319-3324	5.6	4
298	Tunable interdot coupling in few-electron bilayer graphene double quantum dots. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 103101	3.4	4
297	Adsorption of Hexacontane on Hexagonal Boron Nitride. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 27575-27581	5.8	4
296	Nonlinear Viscoelasticity of Highly Ordered, Two-Dimensional Assemblies of Metal Nanoparticles Confined at the Air/Water Interface. <i>Langmuir</i> , <b>2018</b> , 34, 13025-13034	4	4
295	Multiple flat bands and topological Hofstadter butterfly in twisted bilayer graphene close to the second magic angle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	4
294	Probing the bright exciton state in twisted bilayer graphene via resonant Raman scattering. <i>Applied Physics Letters</i> , <b>2021</b> , 119, 013103	3.4	4
293	Tunable exciton-polaritons emerging from WS monolayer excitons in a photonic lattice at room temperature. <i>Nature Communications</i> , <b>2021</b> , 12, 4933	17.4	4

292	Moiré-Trapped Interlayer Trions in a Charge-Tunable WSe <sub>2</sub> /MoSe <sub>2</sub> Heterobilayer. <i>Physical Review X</i> , <b>2021</b> , 11,	9.1	4
291	Rydberg series of dark excitons and the conduction band spin-orbit splitting in monolayer WSe <sub>2</sub> . <i>Communications Physics</i> , <b>2021</b> , 4,	5.4	4
290	Visualizing electron localization of WS/WSe moiré superlattices in momentum space. <i>Science Advances</i> , <b>2021</b> , 7, eabf4387	14.3	4
289	Spin/valley pumping of resident electrons in WSe and WS monolayers. <i>Nature Communications</i> , <b>2021</b> , 12, 5455	17.4	4
288	Contact-Barrier Free, High Mobility, Dual-Gated Junctionless Transistor Using Tellurium Nanowire. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2006278	15.6	4
287	Equilibrium charge state of NV centers in diamond. <i>Applied Physics Letters</i> , <b>2021</b> , 119, 254001	3.4	4
286	Nanoscale Modification of WS Trion Emission by Its Local Electromagnetic Environment. <i>Nano Letters</i> , <b>2021</b> ,	11.5	4
285	Imaging of Submicroampere Currents in Bilayer Graphene Using a Scanning Diamond Magnetometer. <i>Physical Review Applied</i> , <b>2022</b> , 17,	4.3	4
284	High-pressure synthesis of a 12CaO·7Al <sub>2</sub> O <sub>3</sub> ·2SrO·7Al <sub>2</sub> O <sub>3</sub> solid solution. <i>Journal of the American Ceramic Society</i> , <b>2017</b> , 100, 1285-1289	3.8	3
283	Exciton-exciton annihilation in hBN. <i>Applied Physics Letters</i> , <b>2019</b> , 114, 232103	3.4	3
282	Rheology and Entanglement Structure of Well-Entangled Polymer Melts: A Slip-Link Simulation Study. <i>Macromolecules</i> , <b>2019</b> , 52, 3951-3964	5.5	3
281	Microscopic Mechanism of Van der Waals Heteroepitaxy in the Formation of MoS/hBN Vertical Heterostructures. <i>ACS Omega</i> , <b>2020</b> , 5, 31692-31699	3.9	3
280	Complementary Trilayer Bulk Black Phosphorus Heterojunction Tunnel Field-Effect Transistor with Subthermionic Subthreshold Swing. <i>ACS Applied Electronic Materials</i> , <b>2020</b> , 2, 3491-3496	4	3
279	Unconventional valley-dependent optical selection rules and Landau level mixing in bilayer graphene. <i>Nature Communications</i> , <b>2020</b> , 11, 2941	17.4	3
278	Quantum-dot assisted spectroscopy of degeneracy-lifted Landau levels in graphene. <i>Nature Communications</i> , <b>2020</b> , 11, 3408	17.4	3
277	Optimizing Dirac fermions quasi-confinement by potential smoothness engineering. <i>2D Materials</i> , <b>2020</b> , 7, 025037	5.9	3
276	Facile deterministic cutting of 2D materials for twistronics using a tapered fibre scalpel. <i>Nanotechnology</i> , <b>2020</b> , 31, 32LT02	3.4	3
275	Reynolds-number-dependent dynamical transitions on hydrodynamic synchronization modes of externally driven colloids. <i>Physical Review E</i> , <b>2018</b> , 97, 032611	2.4	3

274	Gate-Tunable Landau Level Filling and Spectroscopy in Coupled Massive and Massless Electron Systems. <i>Physical Review Letters</i> , <b>2016</b> , 117, 026601	7.4	3
273	Conditions for growth of AlN single crystals in AlN flux. <i>Journal of the American Ceramic Society</i> , <b>2018</b> , 101, 4876-4879	3.8	3
272	Nontrivial quantum oscillation geometric phase shift in a trivial band. <i>Science Advances</i> , <b>2019</b> , 5, eaax65504.3	4.3	3
271	Phonon-mediated intervalley relaxation of positive trions in monolayer WSe <sub>2</sub> . <i>Physical Review B</i> , <b>2019</b> , 100,	3.3	3
270	Photo-Nernst detection of cyclotron resonance in partially irradiated graphene. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 153102	3.4	3
269	Nanosecond spin lifetimes in bottom-up fabricated bilayer graphene spin-valves with atomic layer deposited AlO spin injection and detection barriers. <i>Physica Status Solidi (B): Basic Research</i> , <b>2015</b> , 252, 2395-2400	1.3	3
268	Edge-Channel Transport of Dirac Fermions in Graphene Quantum Hall Junctions. <i>Journal of the Physical Society of Japan</i> , <b>2015</b> , 84, 121007	1.5	3
267	Stability of 12CaO·7Al <sub>2</sub> O <sub>3</sub> Crystal under High-Pressure: Experimental and First-Principles Approaches. <i>Materials Transactions</i> , <b>2015</b> , 56, 1350-1353	1.3	3
266	Electrostatic Potential around a Charged Colloidal Particle in an Electrolyte Solution with Ion Strong Coupling. <i>Journal of the Physical Society of Japan</i> , <b>2012</b> , 81, 024803	1.5	3
265	Computer simulation study on the shear-induced phase separation in semi-dilute polymer solutions by using Ianniruberto-Marrucci model. <i>Polymer</i> , <b>2010</b> , 51, 1853-1860	3.9	3
264	Interlayer exciton complexes in bilayer MoS <sub>2</sub> . <i>Physical Review B</i> , <b>2022</b> , 105,	3.3	3
263	Raman spectra of twisted bilayer graphene close to the magic angle. <i>2D Materials</i> , <b>2022</b> , 9, 025007	5.9	3
262	Probing Two-Electron Multiplets in Bilayer Graphene Quantum Dots.. <i>Physical Review Letters</i> , <b>2021</b> , 127, 256802	7.4	3
261	Effect of a pick-and-drop process on optical properties of a CVD-grown monolayer tungsten disulfide. <i>Physical Review Materials</i> , <b>2018</b> , 2,	3.2	3
260	Coulomb dominated cavities in bilayer graphene. <i>Physical Review Research</i> , <b>2020</b> , 2,	3.9	3
259	Anomalous phase dynamics of driven graphene Josephson junctions. <i>Physical Review Research</i> , <b>2020</b> , 2,	3.9	3
258	Spectral asymmetry of phonon sideband luminescence in monolayer and bilayer WSe <sub>2</sub> . <i>Physical Review Research</i> , <b>2021</b> , 3,	3.9	3
257	Miniaturizing Transmon Qubits Using van der Waals Materials. <i>Nano Letters</i> , <b>2021</b> , 21, 10122-10126	11.5	3

256	Formation and tuning of moiré excitons in large-twist angle WS <sub>2</sub> /MoSe <sub>2</sub> heterobilayers		3
255	Crystalline boron monosulfide nanosheets with tunable bandgaps. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 24631-24640	13	3
254	Electrically driven strain-induced deterministic single-photon emitters in a van der Waals heterostructure. <i>Science Advances</i> , <b>2021</b> , 7, eabj3176	14.3	3
253	Visualizing Band Profiles of Gate-Tunable Junctions in MoS/WSe Heterostructure Transistors. <i>ACS Nano</i> , <b>2021</b> , 15, 16314-16321	16.7	3
252	A molecular shift register made using tunable charge patterns in one-dimensional molecular arrays on graphene. <i>Nature Electronics</i> , <b>2020</b> , 3, 598-603	28.4	3
251	Electron-hole hybridization in bilayer graphene. <i>National Science Review</i> , <b>2020</b> , 7, 248-253	10.8	3
250	Detecting band profiles of devices with conductive atomic force microscopy. <i>Review of Scientific Instruments</i> , <b>2020</b> , 91, 073702	1.7	3
249	High-Quality GaN Crystal Growth Using Flux-Film-Coated LPE with Na Flux. <i>Crystal Research and Technology</i> , <b>2020</b> , 55, 2000042	1.3	3
248	Observation of logarithmic Kohn anomaly in monolayer graphene. <i>Physical Review B</i> , <b>2020</b> , 102,	3.3	3
247	Relationship between mobility and strain in CVD graphene on h-BN. <i>AIP Advances</i> , <b>2020</b> , 10, 085309	1.5	3
246	Giant Valley-Polarized Rydberg Excitons in Monolayer WSe Revealed by Magneto-photocurrent Spectroscopy. <i>Nano Letters</i> , <b>2020</b> , 20, 7635-7641	11.5	3
245	Nanoimaging of Low-Loss Plasmonic Waveguide Modes in a Graphene Nanoribbon. <i>Nano Letters</i> , <b>2021</b> , 21, 3106-3111	11.5	3
244	Material and Device Structure Designs for 2D Memory Devices Based on the Floating Gate Voltage Trajectory. <i>ACS Nano</i> , <b>2021</b> , 15, 6658-6668	16.7	3
243	Enhanced electron-phonon coupling in doubly aligned hexagonal boron nitride bilayer graphene heterostructure. <i>Physical Review B</i> , <b>2021</b> , 103,	3.3	3
242	Planar graphene-NbSe <sub>2</sub> Josephson junctions in a parallel magnetic field. <i>Physical Review B</i> , <b>2021</b> , 103,	3.3	3
241	Highly Biaxially Strained Silicene on Au(111). <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 9973-9980	3.8	3
240	Evidence of Orbital Ferromagnetism in Twisted Bilayer Graphene Aligned to Hexagonal Boron Nitride. <i>Nano Letters</i> , <b>2021</b> , 21, 4299-4304	11.5	3
239	Edge channels of broken-symmetry quantum Hall states in graphene visualized by atomic force microscopy. <i>Nature Communications</i> , <b>2021</b> , 12, 2852	17.4	3



238	Nanoscale Trapping of Interlayer Excitons in a 2D Semiconductor Heterostructure. <i>Nano Letters</i> , <b>2021</b> , 21, 5641-5647	11.5	3
237	Optical Signatures of Dirac Electrodynamics for hBN-Passivated Silicene on Au(111). <i>Nano Letters</i> , <b>2021</b> , 21, 5301-5307	11.5	3
236	Tuning the Direct and Indirect Excitonic Transitions of -BN by Hydrostatic Pressure. <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 12880-12885	3.8	3
235	Superconducting Contacts to a Monolayer Semiconductor. <i>Nano Letters</i> , <b>2021</b> , 21, 5614-5619	11.5	3
234	Local field effects in ultrafast light-matter interaction measured by pump-probe spectroscopy of monolayer MoSe <sub>2</sub> . <i>Nanophotonics</i> , <b>2021</b> , 10, 2717-2728	6.3	3
233	Upstream modes and antidots poison graphene quantum Hall effect. <i>Nature Communications</i> , <b>2021</b> , 12, 4265	17.4	3
232	Coherent Jetting from a Gate-Defined Channel in Bilayer Graphene. <i>Physical Review Letters</i> , <b>2021</b> , 127, 046801	7.4	3
231	Conductance fluctuations in high mobility monolayer graphene: Nonergodicity, lack of determinism and chaotic behavior. <i>Scientific Reports</i> , <b>2016</b> , 6, 33118	4.9	3
230	Tailoring the Optical Response of Pentacene Thin Films via Templated Growth on Hexagonal Boron Nitride. <i>Journal of Physical Chemistry Letters</i> , <b>2021</b> , 12, 26-31	6.4	3
229	Gate-tunable quantum dot formation between localized-resonant states in a few-layer MoS <sub>2</sub> . <i>Nanotechnology</i> , <b>2021</b> , 32, 195207	3.4	3
228	Monolayer and thin hBN as substrates for electron spectro-microscopy analysis of plasmonic nanoparticles. <i>Applied Physics Letters</i> , <b>2018</b> , 113, 231108	3.4	3
227	Lattice vibrations of single and multi-layer isotopologic graphene. <i>Carbon</i> , <b>2018</b> , 140, 449-457	10.4	3
226	Resonant Coupling of a Moiré-Exciton to a Phonon in a WSe <sub>2</sub> /MoSe <sub>2</sub> Heterobilayer. <i>Nano Letters</i> , <b>2021</b> , 21, 5938-5944	11.5	3
225	Anomalous Dimensionality-Driven Phase Transition of MoTe <sub>2</sub> in Van der Waals Heterostructure. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2107376	15.6	3
224	Enhancement of exciton valley polarization in monolayer MoS <sub>2</sub> induced by scattering. <i>Physical Review B</i> , <b>2021</b> , 104,	3.3	3
223	Dielectric Engineering for Manipulating Exciton Transport in Semiconductor Monolayers. <i>Nano Letters</i> , <b>2021</b> , 21, 8409-8417	11.5	3
222	Structure of the moiré-exciton captured by imaging its electron and hole.. <i>Nature</i> , <b>2022</b> , 603, 247-252	50.4	3
221	Long-range transport of 2D excitons with acoustic waves.. <i>Nature Communications</i> , <b>2022</b> , 13, 1334	17.4	3

220	Broken-symmetry states at half-integer band fillings in twisted bilayer graphene. <i>Nature Physics</i> , 16.2 3
219	Dark exciton-exciton annihilation in monolayer WSe <sub>2</sub> . <i>Physical Review B</i> , <b>2021</b> , 104, 3.3 3
218	Twisted black phosphorus-based van der Waals stacks for fiber-integrated polarimeters.. <i>Science Advances</i> , <b>2022</b> , 8, eabo0375 14.3 3
217	Imaging tunable quantum Hall broken-symmetry orders in graphene.. <i>Nature</i> , <b>2022</b> , 605, 51-56 50.4 3
216	Integrated impedance bridge for absolute capacitance measurements at cryogenic temperatures and finite magnetic fields. <i>Review of Scientific Instruments</i> , <b>2019</b> , 90, 084706 1.7 2
215	Fractional and Symmetry-Broken Chern Insulators in Tunable Moiré Superlattices. <i>Nano Letters</i> , <b>2019</b> , 19, 4321-4326 11.5 2
214	Two-Dimensional Diffusion of Excitons in a Perylene Diimide Monolayer Quenched by a Fullerene Heterojunction. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 12249-12254 3.8 2
213	Superconductivity in filled skutterudite LaRh <sub>4</sub> P <sub>12</sub> (0.5 Acta Materialia, <b>2019</b> , 166, 543-550 8.4 2
212	Dark-state impact on the exciton recombination of WS <sub>2</sub> monolayers as revealed by multi-timescale pump-probe spectroscopy. <i>Physical Review B</i> , <b>2020</b> , 102, 3.3 2
211	Monolayer Semiconductor Auger Detector. <i>Nano Letters</i> , <b>2020</b> , 20, 5538-5543 11.5 2
210	Landau levels of bilayer graphene in a WSe <sub>2</sub> /bilayer graphene van der Waals heterostructure. <i>Physical Review B</i> , <b>2019</b> , 100, 3.3 2
209	Dynamic band structure and capacitance effects in scanning tunneling spectroscopy of bilayer graphene. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 181601 3.4 2
208	The P <sub>VT</sub> equation of state of CaPtO <sub>3</sub> post-perovskite. <i>Physics and Chemistry of Minerals</i> , <b>2013</b> , 40, 73-80 1.6 2
207	Multiscale DSA simulations for efficient hotspot analysis <b>2014</b> , 2
206	Gate-Tunable Transport in Quasi-One-Dimensional Bil Field Effect Transistors.. <i>Nano Letters</i> , <b>2022</b> , 11.5 2
205	Tunable Spin Injection in High-Quality Graphene with One-Dimensional Contacts.. <i>Nano Letters</i> , <b>2022</b> , 11.5 2
204	Spatially indirect intervalley excitons in bilayer WSe <sub>2</sub> . <i>Physical Review B</i> , <b>2022</b> , 105, 3.3 2
203	Giant Photoresponse Enhancement in Mixed-Dimensional Van der Waals Heterostructure through Dielectric Engineering. <i>Advanced Materials Interfaces</i> , <b>2020</b> , 2102054 4.6 2

202	Enhancing Perpendicular Magnetic Anisotropy in Garnet Ferrimagnet by Interfacing with Few-Layer WTe <sub>2</sub> . <i>Nano Letters</i> , <b>2022</b> ,	11.5	2
201	Enhanced Performance of WS <sub>2</sub> Field-Effect Transistor through Mono and Bilayer h-BN Tunneling Contacts.. <i>Small</i> , <b>2022</b> , e2105753	11	2
200	Pauli Blockade of Tunable Two-Electron Spin and Valley States in Graphene Quantum Dots.. <i>Physical Review Letters</i> , <b>2022</b> , 128, 067702	7.4	2
199	Spatially correlated incommensurate lattice modulations in an atomically thin high-temperature Bi <sub>2</sub> 1.9Sr <sub>1.9</sub> CaCu <sub>2.0</sub> O <sub>8+y</sub> superconductor. <i>Physical Review Materials</i> , <b>2020</b> , 4,	3.2	2
198	Mid-infrared Photodetection Using Cyclotron Resonance in Graphene/h-BN van der Waals Heterostructures. <i>Sensors and Materials</i> , <b>2019</b> , 31, 2281	1.5	2
197	Exposing the trion's fine structure by controlling the carrier concentration in hBN-encapsulated MoS <sub>2</sub> . <i>Nanoscale</i> , <b>2021</b> , 13, 18726-18733	7.7	2
196	Gate-Controlled Supercurrent in Epitaxial Al/InAs Nanowires. <i>Nano Letters</i> , <b>2021</b> , 21, 9684-9690	11.5	2
195	Tuning single-electron charging and interactions between compressible Landau level islands in graphene. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	2
194	Quantitative Determination of Contradictory Bandgap Values of Bulk PdSe <sub>2</sub> from Electrical Transport Properties. <i>Advanced Functional Materials</i> , 2108061	15.6	2
193	Generation of High-Density Quantum Emitters in High-Quality, Exfoliated Hexagonal Boron Nitride. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 47283-47292	9.5	2
192	Dynamic Tuning of Moiré Excitons in a WSe <sub>2</sub> /WS <sub>2</sub> Heterostructure via Mechanical Deformation. <i>Nano Letters</i> , <b>2021</b> , 21, 8910-8916	11.5	2
191	Optoelectronic Mixing in High-Mobility Graphene. <i>ACS Photonics</i> , <b>2021</b> , 8, 369-375	6.3	2
190	Detection of chirality of single-walled carbon nanotubes on hexagonal boron nitride. <i>Applied Physics Letters</i> , <b>2020</b> , 117, 023101	3.4	2
189	Reduced Inhomogeneous Broadening in Hexagonal Boron Nitride-Encapsulated MoTe <sub>2</sub> Monolayers by Thermal Treatment. <i>ACS Applied Electronic Materials</i> , <b>2020</b> , 2, 2739-2744	4	2
188	Interplay of filling fraction and coherence in symmetry broken graphene p-n junction. <i>Communications Physics</i> , <b>2020</b> , 3,	5.4	2
187	Compact SQUID Realized in a Double-Layer Graphene Heterostructure. <i>Nano Letters</i> , <b>2020</b> , 20, 7129-7135	11.5	2
186	How Photoinduced Gate Screening and Leakage Currents Dynamically Change the Fermi Level in 2D Materials. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2020</b> , 14, 2000298	2.5	2
185	In Operando Angle-Resolved Photoemission Spectroscopy with Nanoscale Spatial Resolution: Spatial Mapping of the Electronic Structure of Twisted Bilayer Graphene. <i>Small Science</i> , <b>2021</b> , 1, 2000075		2

184	Raman spectroscopic study of artificially twisted and non-twisted trilayer graphene. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 133101	3.4	2
183	Dispersive sensing of charge states in a bilayer graphene quantum dot. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 093104	3.4	2
182	Gapless Spin Wave Transport through a Quantum Canted Antiferromagnet. <i>Physical Review X</i> , <b>2021</b> , 11,	9.1	2
181	One-dimensional edge contact to encapsulated MoS <sub>2</sub> with a superconductor. <i>AIP Advances</i> , <b>2021</b> , 11, 045312	1.5	2
180	Mitigation of Electromigration in Metal Interconnects via Hexagonal Boron Nitride as an Edge-Thin Passivation Layer. <i>Advanced Electronic Materials</i> , <b>2021</b> , 7, 2100002	6.4	2
179	Twisted monolayer and bilayer graphene for vertical tunneling transistors. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 183106	3.4	2
178	High mobility field-effect transistors based on MoS <sub>2</sub> crystals grown by the flux method. <i>Nanotechnology</i> , <b>2021</b> , 32,	3.4	2
177	Broadband sum frequency generation spectroscopy of dark exciton states in hBN-encapsulated monolayer WSe <sub>2</sub> . <i>Optics Express</i> , <b>2021</b> , 29, 24629-24645	3.3	2
176	Innenrücktitelbild: Boron Nitride Nanosheets Improve Sensitivity and Reusability of Surface-Enhanced Raman Spectroscopy (Angew. Chem. 29/2016). <i>Angewandte Chemie</i> , <b>2016</b> , 128, 8597-8597	3.6	2
175	Dirac fermion quantum Hall antidot in graphene. <i>Physical Review B</i> , <b>2019</b> , 100,	3.3	2
174	Reducing the Impact of Bulk Doping on Transport Properties of Bi-Based 3D Topological Insulators. <i>Physica Status Solidi (B): Basic Research</i> , <b>2021</b> , 258, 2000021	1.3	2
173	Magnetic Field Induced Inter-Valley Trion Dynamics in Monolayer 2D Semiconductor. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2006064	15.6	2
172	Tip-Based Cleaning and Smoothing Improves Performance in Monolayer MoS <sub>2</sub> Devices. <i>ACS Omega</i> , <b>2021</b> , 6, 4013-4021	3.9	2
171	Frequency Doubler and Universal Logic Gate Based on Two-Dimensional Transition Metal Dichalcogenide Transistors with Low Power Consumption. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 7470-7475	9.5	2
170	Quantized conductance with nonzero shot noise as a signature of Andreev edge state. <i>Physical Review B</i> , <b>2021</b> , 104,	3.3	2
169	Direct Visualization of Native Defects in Graphite and Their Effect on the Electronic Properties of Bernal-Stacked Bilayer Graphene. <i>Nano Letters</i> , <b>2021</b> , 21, 7100-7108	11.5	2
168	Observation of giant and tunable thermal diffusivity of a Dirac fluid at room temperature. <i>Nature Nanotechnology</i> , <b>2021</b> , 16, 1195-1200	28.7	2
167	Anomalous interfacial dynamics of single proton charges in binary aqueous solutions. <i>Science Advances</i> , <b>2021</b> , 7, eabg8568	14.3	2

166	Superconducting contact and quantum interference between two-dimensional van der Waals and three-dimensional conventional superconductors. <i>Physical Review Materials</i> , <b>2021</b> , 5,	3.2	2
165	Evidence of Lifshitz Transition in the Thermoelectric Power of Ultrahigh-Mobility Bilayer Graphene. <i>Nano Letters</i> , <b>2021</b> , 21, 1221-1227	11.5	2
164	Enhanced Radiative Exciton Recombination in Monolayer WS <sub>2</sub> on the hBN Substrate Competing with Nonradiative Exciton-Exciton Annihilation. <i>ACS Photonics</i> , <b>2022</b> , 9, 873-879	6.3	2
163	Spatiotemporally controlled room-temperature exciton transport under dynamic strain. <i>Nature Photonics</i> , <b>2022</b> , 16, 242-247	33.9	2
162	Hybridized Exciton-Photon-Phonon States in a Transition Metal Dichalcogenide van der Waals Heterostructure Microcavity.. <i>Physical Review Letters</i> , <b>2022</b> , 128, 087401	7.4	2
161	Visualization of Dark Excitons in Semiconductor Monolayers for High-Sensitivity Strain Sensing.. <i>Nano Letters</i> , <b>2022</b> ,	11.5	2
160	Tunable and giant valley-selective Hall effect in gapped bilayer graphene.. <i>Science</i> , <b>2022</b> , 375, 1398-1402	33.3	2
159	Spectroscopy signatures of electron correlations in a trilayer graphene/hBN moiré superlattice.. <i>Science</i> , <b>2022</b> , 375, 1295-1299	33.3	2
158	Dipolar excitonic insulator in a moiré lattice. <i>Nature Physics</i> ,	16.2	2
157	Nitrogen concentration control in diamonds grown in Co(Fe)/Ni/Al solvents under high-pressure and high-temperature. <i>Japanese Journal of Applied Physics</i> , <b>2022</b> , 61, 045507	1.4	2
156	Mechanisms of Interface Cleaning in Heterostructures Made from Polymer-Contaminated Graphene.. <i>Small</i> , <b>2022</b> , e2201248	11	2
155	Detection of graphene's divergent orbital diamagnetism at the Dirac point. <i>Science</i> , <b>2021</b> , 374, 1399-1403	33.3	2
154	Excitonic nature of magnons in a quantum Hall ferromagnet. <i>Nature Physics</i> , <b>2021</b> , 17, 1369-1374	16.2	2
153	Quantum critical behaviour in magic-angle twisted bilayer graphene. <i>Nature Physics</i> ,	16.2	2
152	Unusual magnetotransport in twisted bilayer graphene.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2022</b> , 119, e2118482119	11.5	2
151	Cascade of isospin phase transitions in Bernal-stacked bilayer graphene at zero magnetic field. <i>Nature Physics</i> ,	16.2	2
150	RF compressibility of topological surface and interface states in metal/BN/Bi <sub>2</sub> Se <sub>3</sub> capacitors. <i>JPhys Materials</i> , <b>2019</b> , 2, 044003	4.2	1
149	Detection of cyclotron resonance using photo-induced thermionic emission at graphene/MoS <sub>2</sub> van der Waals interface. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 143101	3.4	1

148	Substrate-Dependent Band Structures in Trilayer Graphene/h-BN Heterostructures. <i>Physical Review Letters</i> , <b>2020</b> , 125, 246401	7.4	1
147	Zhao et'al. Reply. <i>Physical Review Letters</i> , <b>2020</b> , 124, 249702	7.4	1
146	Multiband Ballistic Transport and Anisotropic Commensurability Magnetoresistance in Antidot Lattices of AB-stacked Trilayer Graphene. <i>Journal of the Physical Society of Japan</i> , <b>2020</b> , 89, 044703	1.5	1
145	Fabrication of folded bilayer-bilayer graphene/hexagonal boron nitride superlattices. <i>Applied Physics Express</i> , <b>2020</b> , 13, 035003	2.4	1
144	High-order minibands and interband Landau level reconstruction in graphene moiré superlattices. <i>Physical Review B</i> , <b>2020</b> , 102,	3.3	1
143	Peeling off Nanometer-Thick Ferromagnetic Layers and Their van der Waals Heterostructures. <i>Advanced Electronic Materials</i> , <b>2019</b> , 5, 1900345	6.4	1
142	Probing the electronic structure of graphene near and far from the Fermi level via planar tunneling spectroscopy. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 163504	3.4	1
141	Insulating State in Low-Disorder Graphene Nanoribbons. <i>Physica Status Solidi (B): Basic Research</i> , <b>2019</b> , 256, 1900269	1.3	1
140	Electrical Control of Cyclotron Resonance in Dual-Gated Trilayer Graphene. <i>Nano Letters</i> , <b>2019</b> , 19, 8097-8102	8.1	1
139	Cavity Enhanced Light-Matter Interaction in a Graphene Photodetector <b>2019</b> ,		1
138	Raman spectroscopy on mechanically exfoliated pristine graphene ribbons. <i>Physica Status Solidi (B): Basic Research</i> , <b>2014</b> , 251, 2551-2555	1.3	1
137	Cross sectional STEM imaging and analysis of multilayered two dimensional crystal heterostructure devices. <i>Microscopy and Microanalysis</i> , <b>2015</b> , 21, 107-108	0.5	1
136	Muonium in stishovite: implications for the possible existence of neutral atomic hydrogen in the earth's deep mantle. <i>Scientific Reports</i> , <b>2015</b> , 5, 8437	4.9	1
135	Stochastic interactions of two Brownian hard spheres in the presence of depletants. <i>Journal of Chemical Physics</i> , <b>2014</b> , 140, 214906	3.9	1
134	How flow changes polymer depletion in a slit. <i>European Physical Journal E</i> , <b>2012</b> , 35, 88	1.5	1
133	Elongational behavior of epoxy during curing. <i>Journal of Applied Polymer Science</i> , <b>2009</b> , 114, 1018-1024	2.9	1
132	Development of Polymer Extrusion Extruder for Evaluating with a Small Amount of Polymeric Material. <i>International Polymer Processing</i> , <b>2012</b> , 27, 434-441	1	1
131	Relationship between Hot Tack Strength and Entanglement Behavior for Two Kind of Polystyrene Having Different Molecular Weight Distribution.. <i>Journal of the Adhesion Society of Japan</i> , <b>2006</b> , 42, 506-512	0.1	1

130	Out-of-equilibrium criticalities in graphene superlattices.. <i>Science</i> , <b>2022</b> , 375, 430-433	33.3	1
129	Boosting quantum yields in two-dimensional semiconductors via proximal metal plates. <i>Nature Communications</i> , <b>2021</b> , 12, 7095	17.4	1
128	Scanning gate microscopy of localized states in a gate-defined bilayer graphene channel. <i>Physical Review Research</i> , <b>2020</b> , 2,	3.9	1
127	Asymmetric photoelectric effect: Auger-assisted hot hole photocurrents in transition metal dichalcogenides. <i>Nanophotonics</i> , <b>2020</b> , 10, 105-113	6.3	1
126	Mode-Center Placement of Monolayer WS <sub>2</sub> in a Photonic Polymer Waveguide. <i>Advanced Optical Materials</i> , 2101684	8.1	1
125	Orbital gating driven by giant Stark effect in tunneling phototransistors. <i>Advanced Materials</i> , <b>2021</b> , e2106625	16.25	1
124	Non-Local Electrostatic Gating Effect in Graphene Revealed by Infrared Nano-Imaging. <i>Small</i> , <b>2021</b> , e2105687	15.87	1
123	Prominent Verway Transition of Fe <sub>3</sub> O <sub>4</sub> Thin Films Grown on Transferable Hexagonal Boron Nitride. <i>ACS Applied Electronic Materials</i> , <b>2021</b> , 3, 5031-5036	4	1
122	Multiterminal Inverse AC Josephson Effect. <i>Nano Letters</i> , <b>2021</b> , 21, 9668-9674	11.5	1
121	In-situ twistable bilayer graphene.. <i>Scientific Reports</i> , <b>2022</b> , 12, 204	4.9	1
120	Resonant Light Emission from Graphene/Hexagonal Boron Nitride/Graphene Tunnel Junctions. <i>Nano Letters</i> , <b>2021</b> , 21, 8332-8339	11.5	1
119	Imaging Reconfigurable Molecular Concentration on a Graphene Field-Effect Transistor. <i>Nano Letters</i> , <b>2021</b> , 21, 8770-8776	11.5	1
118	Near ultraviolet light emission in hexagonal boron nitride based van der Waals heterostructures <b>2019</b> ,		1
117	Destructive Photon Echo Formation in Six-Wave Mixing Signals of a MoSe Monolayer. <i>Advanced Science</i> , <b>2021</b> , e2103813	13.6	1
116	Fabry-Pérot cavities and quantum dot formation at gate-defined interfaces in twisted double bilayer graphene. <i>2D Materials</i> ,	5.9	1
115	Radiative lifetime of free excitons in hexagonal boron nitride. <i>Physical Review B</i> , <b>2021</b> , 104,	3.3	1
114	Nonmonotonic Temperature-Dependent Dissipation at Nonequilibrium in Atomically Thin Clean-Limit Superconductors. <i>Nano Letters</i> , <b>2021</b> , 21, 583-589	11.5	1
113	Atomically thin quantum light-emitting diodes		1



112	Circular electromechanical resonators based on hexagonal-boron nitride-graphene heterostructures. <i>Applied Physics Letters</i> , <b>2020</b> , 117, 183103	3.4	1
111	Electric Field Induced Surface Profile Change of Liquid Film on a Periodically Aligned Electrode Array. <i>Nihon Reoroji Gakkaishi</i> , <b>2010</b> , 38, 81-86	0.8	1
110	Broken Symmetries and Kohn–Thomson Theorem in Graphene Cyclotron Resonance. <i>Physical Review X</i> , <b>2020</b> , 10,	9.1	1
109	Landscape of Charge Puddles in Graphene Nanoribbons on Hexagonal Boron Nitride. <i>Physica Status Solidi (B): Basic Research</i> , <b>2020</b> , 257, 2000317	1.3	1
108	Programmable Bloch polaritons in graphene. <i>Science Advances</i> , <b>2021</b> , 7,	14.3	1
107	Anomalous thermopower oscillations in graphene-nanowire vertical heterostructures. <i>Nanotechnology</i> , <b>2021</b> , 32,	3.4	1
106	Unconventional satellite resistance peaks in moiré superlattice of h-BN/ AB-stacked tetralayer-graphene heterostructures. <i>Communications Physics</i> , <b>2021</b> , 4,	5.4	1
105	Odd Integer Quantum Hall States with Interlayer Coherence in Twisted Bilayer Graphene. <i>Nano Letters</i> , <b>2021</b> , 21, 4249-4254	11.5	1
104	Tunable self-trapped excitons in 2D layered rubrene. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 253103	3.4	1
103	Impurity-Induced Emission in Re-Doped WS Monolayers. <i>Nano Letters</i> , <b>2021</b> , 21, 5293-5300	11.5	1
102	Valley polarized conductance quantization in bilayer graphene narrow quantum point contact. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 263102	3.4	1
101	Measuring and Tuning the Potential Landscape of Electrostatically Defined Quantum Dots in Graphene. <i>Nano Letters</i> , <b>2021</b> , 21, 5013-5020	11.5	1
100	Heated Assembly and Transfer of Van der Waals Heterostructures with Common Nail Polish. <i>Nanomanufacturing</i> , <b>2021</b> , 1, 49-56		1
99	Strange metal behavior of the Hall angle in twisted bilayer graphene. <i>Physical Review B</i> , <b>2021</b> , 103,	3.3	1
98	Artificial Synapses: A Reliable All-2D Materials Artificial Synapse for High Energy-Efficient Neuromorphic Computing (Adv. Funct. Mater. 27/2021). <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2170197	15.6	1
97	2D Nanomaterials: Molecule-Induced Conformational Change in Boron Nitride Nanosheets with Enhanced Surface Adsorption (Adv. Funct. Mater. 45/2016). <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 8356-8356	15.6	1
96	Magnetotransport study of the mini-Dirac cone in AB-stacked four- to six-layer graphene under perpendicular electric field. <i>Physical Review B</i> , <b>2019</b> , 100,	3.3	1
95	Multiterminal Transport Measurements of Multilayer InSe Encapsulated by hBN. <i>ACS Applied Electronic Materials</i> , <b>2021</b> , 3, 163-169	4	1

94	Enhanced Exciton-Exciton Collisions in an Ultraflat Monolayer MoSe Prepared through Deterministic Flattening. <i>ACS Nano</i> , <b>2021</b> , 15, 1370-1377	16.7	1
93	Investigations of Electron-Electron and Interlayer Electron-Phonon Coupling in van der Waals hBN/WSe/hBN Heterostructures by Photoluminescence Excitation Experiments. <i>Materials</i> , <b>2021</b> , 14,	3.5	1
92	Charge Neutral Current Generation in a Spontaneous Quantum Hall Antiferromagnet. <i>Physical Review Letters</i> , <b>2021</b> , 126, 016801	7.4	1
91	Layer- and gate-tunable spin-orbit coupling in a high-mobility few-layer semiconductor. <i>Science Advances</i> , <b>2021</b> , 7,	14.3	1
90	Stacking-Specific Reversible Oxidation of Bilayer Graphene. <i>Chemistry of Materials</i> , <b>2021</b> , 33, 1249-1256	9.6	1
89	Photothermal Effect: Large Photothermal Effect in Sub-40 nm h-BN Nanostructures Patterned Via High-Resolution Ion Beam (Small 22/2018). <i>Small</i> , <b>2018</b> , 14, 1870101	11	1
88	Strong Interminivalley Scattering in Twisted Bilayer Graphene Revealed by High-Temperature Magneto-Oscillations. <i>Physical Review Letters</i> , <b>2021</b> , 127, 056802	7.4	1
87	The optical response of artificially twisted MoS[Formula: see text] bilayers. <i>Scientific Reports</i> , <b>2021</b> , 11, 17037	4.9	1
86	Imaging Seebeck drift of excitons and trions in MoSe <sub>2</sub> monolayers. <i>2D Materials</i> , <b>2021</b> , 8, 045014	5.9	1
85	Spatial Mapping of Electrostatic Fields in 2D Heterostructures. <i>Nano Letters</i> , <b>2021</b> , 21, 7131-7137	11.5	1
84	Temperature-Dependent Adhesion in van der Waals Heterostructures. <i>Advanced Materials Interfaces</i> , <b>2021</b> , 8, 2100838	4.6	1
83	Signature of Spin-Resolved Quantum Point Contact in p-Type Trilayer WSe van der Waals Heterostructure. <i>Nano Letters</i> , <b>2021</b> , 21, 7534-7541	11.5	1
82	Control of Giant Topological Magnetic Moment and Valley Splitting in Trilayer Graphene. <i>Physical Review Letters</i> , <b>2021</b> , 127, 136402	7.4	1
81	High field-effect performance and intrinsic scattering in the two-dimensional MoS <sub>2</sub> semiconductors. <i>Applied Surface Science</i> , <b>2021</b> , 564, 150422	6.7	1
80	Temperature dependence of carrier mobility in chemical vapor deposited graphene on high-pressure, high-temperature hexagonal boron nitride. <i>Applied Surface Science</i> , <b>2021</b> , 562, 150146	6.7	1
79	Direct imaging of interlayer-coupled symmetric and antisymmetric plasmon modes in graphene/hBN/graphene heterostructures. <i>Nanoscale</i> , <b>2021</b> , 13, 14628-14635	7.7	1
78	High-bandwidth, variable-resistance differential noise thermometry. <i>Review of Scientific Instruments</i> , <b>2021</b> , 92, 014904	1.7	1
77	Visualizing broken symmetry and topological defects in a quantum Hall ferromagnet. <i>Science</i> , <b>2021</b> , eabm3770	37.1	1

76	Isospin order in superconducting magic-angle twisted trilayer graphene. <i>Nature Physics</i> ,	16.2	1
75	Spin-Phonon Coupling in Ferromagnetic Monolayer Chromium Tribromide.. <i>Advanced Materials</i> , <b>2022</b> , e2108506	24	1
74	Magnon-Coupled Intralayer Moiré Trion in Monolayer Semiconductor-Antiferromagnet Heterostructures.. <i>Advanced Materials</i> , <b>2022</b> , e2200301	24	1
73	Non-invasive digital etching of van der Waals semiconductors.. <i>Nature Communications</i> , <b>2022</b> , 13, 1844	17.4	1
72	Parallel transport and layer-resolved thermodynamic measurements in twisted bilayer graphene. <i>Physical Review B</i> , <b>2021</b> , 104,	3.3	1
71	In-Plane Field-Driven Excitonic Electro-Optic Modulation in Monolayer Semiconductor. <i>Advanced Optical Materials</i> , <b>2022</b> , 10, 2102132	8.1	1
70	Manipulating Edge Current in Hexagonal Boron Nitride via Doping and Friction. <i>ACS Nano</i> , <b>2021</b> ,	16.7	1
69	Band Structure Engineering of WSe <sub>2</sub> Homo-Junction Interfaces via Thickness Control. <i>Advanced Materials Interfaces</i> , <b>2022</b> , 9, 2101763	4.6	1
68	Correlated states in doubly-aligned hBN/graphene/hBN heterostructures. <i>Nature Communications</i> , <b>2021</b> , 12, 7196	17.4	1
67	Bulk and edge properties of twisted double bilayer graphene. <i>Nature Physics</i> , <b>2022</b> , 18, 48-53	16.2	1
66	Thermodynamics of free and bound magnons in graphene. <i>Nature Physics</i> , <b>2022</b> , 18, 37-41	16.2	1
65	Dissipation-enabled hydrodynamic conductivity in a tunable bandgap semiconductor.. <i>Science Advances</i> , <b>2022</b> , 8, eabi8481	14.3	1
64	One-dimensional Luttinger liquids in a two-dimensional moiré lattice.. <i>Nature</i> , <b>2022</b> , 605, 57-62	50.4	1
63	Berry curvature dipole senses topological transition in a moiré superlattice. <i>Nature Physics</i> ,	16.2	1
62	Resonant Tunneling between Quantized Subbands in van der Waals Double Quantum Well Structure Based on Few-Layer WSe <sub>2</sub> . <i>Nano Letters</i> ,	11.5	1
61	Two-dimensional lattice liquid models. <i>Physical Review E</i> , <b>2012</b> , 86, 031124	2.4	0
60	All About the Interface: Do Residual Contaminants at A High-Quality h-BN Monolayer Perylene Diimide Interface Cause Charge Trapping?. <i>Advanced Materials Interfaces</i> , 2101701	4.6	0
59	Switchable out-of-plane shift current in ferroelectric two-dimensional material CuInP <sub>2</sub> S <sub>6</sub> . <i>Applied Physics Letters</i> , <b>2022</b> , 120, 013103	3.4	0

58	Observation of ballistic upstream modes at fractional quantum Hall edges of graphene.. <i>Nature Communications</i> , <b>2022</b> , 13, 213	17.4	o
57	Scattering between Minivalleys in Twisted Double Bilayer Graphene.. <i>Physical Review Letters</i> , <b>2022</b> , 128, 057702	7.4	o
56	Spin photovoltaic effect in magnetic van der Waals heterostructures. <i>Science Advances</i> , <b>2021</b> , 7, eabg8094	14.3	o
55	Electrical Modulation of Exciton Complexes in Light-Emitting Tunnel Transistors of a van der Waals Heterostructure. <i>ACS Photonics</i> ,	6.3	o
54	Magnetization dependent tunneling conductance of ferromagnetic barriers. <i>Nature Communications</i> , <b>2021</b> , 12, 6659	17.4	o
53	Phonon engineering of boron nitride via isotopic enrichment. <i>Journal of Materials Research</i> , <b>2021</b> , 36, 4394-4403	2.5	o
52	High-Speed Electroluminescence Modulation in Monolayer WS <sub>2</sub> . <i>Advanced Materials Technologies</i> , <b>2021</b> , 2100965	1.5	o
51	Electrically tunable Feshbach resonances in twisted bilayer semiconductors. <i>Science</i> , <b>2021</b> , 374, 336-340	33.3	o
50	Critical current fluctuations in graphene Josephson junctions. <i>Scientific Reports</i> , <b>2021</b> , 11, 19900	4.9	o
49	Imaging Quantum Interference in Stadium-Shaped Monolayer and Bilayer Graphene Quantum Dots. <i>Nano Letters</i> , <b>2021</b> , 21, 8993-8998	11.5	o
48	Emission Excitation Spectroscopy in WS <sub>2</sub> Monolayer Encapsulated in Hexagonal BN. <i>Acta Physica Polonica A</i> , <b>2019</b> , 136, 624-627	0.6	o
47	A Self-Assembled Graphene Ribbon Device on SiC. <i>ACS Applied Electronic Materials</i> , <b>2020</b> , 2, 204-212	4	o
46	Helical Edge States and Quantum Phase Transitions in Tetralayer Graphene. <i>Physical Review Letters</i> , <b>2020</b> , 125, 036803	7.4	o
45	Light-matter coupling and non-equilibrium dynamics of exchange-split trions in monolayer WS. <i>Journal of Chemical Physics</i> , <b>2020</b> , 153, 034706	3.9	o
44	Highly Tunable Layered Exciton in Bilayer WS <sub>2</sub> : Linear Quantum Confined Stark Effect versus Electrostatic Doping. <i>ACS Photonics</i> , <b>2020</b> , 7, 3386-3393	6.3	o
43	Ultrafast non-excitonic valley Hall effect in MoS <sub>2</sub> /WTe <sub>2</sub> heterobilayers. <i>Nature Communications</i> , <b>2021</b> , 12, 1635	17.4	o
42	Accurate Measurement of the Gap of Graphene/h-BN Moiré Superlattice through Photocurrent Spectroscopy. <i>Physical Review Letters</i> , <b>2021</b> , 126, 146402	7.4	o
41	Bias-controlled multi-functional transport properties of InSe/BP van der Waals heterostructures. <i>Scientific Reports</i> , <b>2021</b> , 11, 7843	4.9	o

40	Stabilization of Chemical-Vapor-Deposition-Grown WS Monolayers at Elevated Temperature with Hexagonal Boron Nitride Encapsulation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 31271-31278	9.5	o
39	Interlayer interaction in 2H-MoTe <sub>2</sub> /hBN heterostructures. <i>2D Materials</i> , <b>2021</b> , 8, 045004	5.9	o
38	Extraordinary Photostability and Davydov Splitting in BN-Sandwiched Single-Layer Tetracene Molecular Crystals. <i>Nano Letters</i> , <b>2021</b> , 21, 6600-6608	11.5	o
37	Role of dark exciton states in the relaxation dynamics of bright 1s excitons in monolayer WSe <sub>2</sub> . <i>Applied Physics Letters</i> , <b>2021</b> , 119, 093101	3.4	o
36	Andreev Reflections in NbN/Graphene Junctions under Large Magnetic Fields. <i>Nano Letters</i> , <b>2021</b> , 21, 8229-8235	11.5	o
35	High-Performance and Ultralow-Noise Two-Dimensional Heterostructure Field-Effect Transistors with One-Dimensional Electrical Contacts. <i>ACS Applied Electronic Materials</i> , <b>2021</b> , 3, 4126-4134	4	o
34	Quantum Lifetime Spectroscopy and Magnetotunneling in Double Bilayer Graphene Heterostructures. <i>Physical Review Letters</i> , <b>2021</b> , 127, 117701	7.4	o
33	Localization to delocalization probed by magnetotransport of hBN/graphene/hBN stacks in the ultra-clean regime. <i>Scientific Reports</i> , <b>2021</b> , 11, 18845	4.9	o
32	Breakdown of semiclassical description of thermoelectricity in near-magic angle twisted bilayer graphene.. <i>Nature Communications</i> , <b>2022</b> , 13, 1522	17.4	o
31	Steady Floquet-Andreev states in graphene Josephson junctions.. <i>Nature</i> , <b>2022</b> , 603, 421-426	50.4	o
30	A monolithically sculpted van der Waals nano-opto-electro-mechanical coupler.. <i>Light: Science and Applications</i> , <b>2022</b> , 11, 48	16.7	o
29	Coulomb Drag between a Carbon Nanotube and Monolayer Graphene.. <i>Physical Review Letters</i> , <b>2021</b> , 127, 257701	7.4	o
28	The effect of dielectric environment on the brightening of neutral and charged dark excitons in WSe <sub>2</sub> monolayer. <i>Applied Physics Letters</i> , <b>2022</b> , 120, 163101	3.4	o
27	Nanoscale solid-state nuclear quadrupole resonance spectroscopy using depth-optimized nitrogen-vacancy ensembles in diamond. <i>Applied Physics Letters</i> , <b>2022</b> , 120, 174002	3.4	o
26	Tunable multi-bands in twisted double bilayer graphene. <i>2D Materials</i> , <b>2022</b> , 9, 034001	5.9	o
25	Catalytic growth of ultralong graphene nanoribbons on insulating substrates.. <i>Advanced Materials</i> , <b>2022</b> , e2200956	24	o
24	Van der Waals Heterostructures: Controllable Magnetic Proximity Effect and Charge Transfer in 2D Semiconductor and Double-Layered Perovskite Manganese Oxide van der Waals Heterostructure (Adv. Mater. 50/2020). <i>Advanced Materials</i> , <b>2020</b> , 32, 2070379	24	
23	Synthesis of a Novel Rocksalt-Type Ternary Nitride Semiconductor MgSnN <sub>2</sub> Using the Metathesis Reaction Under High Pressure. <i>European Journal of Inorganic Chemistry</i> , <b>2020</b> , 2020, 418-418	2.3	

22	Tunneling noise and defects in exfoliated hexagonal boron nitride. <i>AIP Advances</i> , <b>2019</b> , 9, 105218	1.5
21	Graphene-based Mid-infrared Photodetectors and Spin Transport Devices. <i>Journal of the Vacuum Society of Japan</i> , <b>2014</b> , 57, 451-456	
20	Coherent Carrier Transport in Grpahene npn Junctions. <i>Hyomen Kagaku</i> , <b>2015</b> , 36, 124-128	
19	Quantitative Electron Microscopy and the Application by Single Electron Signals. <i>Microscopy and Microanalysis</i> , <b>2015</b> , 21, 1449-1450	0.5
18	Positron charge sensing using a double-gated graphene field effect transistor.. <i>Review of Scientific Instruments</i> , <b>2022</b> , 93, 015002	1.7
17	Probing the Intrinsic Bending Stiffness of 2D Multilayers and Heterostructures Using Aberration-corrected STEM. <i>Microscopy and Microanalysis</i> , <b>2020</b> , 26, 1632-1634	0.5
16	High-resolution optical micro-spectroscopy extending from the near-infrared to the vacuum-ultraviolet. <i>Review of Scientific Instruments</i> , <b>2020</b> , 91, 073107	1.7
15	Van Hove Singularities: Observation of Electrically Tunable van Hove Singularities in Twisted Bilayer Graphene from NanoARPES (Adv. Mater. 31/2020). <i>Advanced Materials</i> , <b>2020</b> , 32, 2070230	24
14	Single- and narrow-line photoluminescence in a boron nitride-supported MoSe <sub>2</sub> /graphene heterostructure. <i>Comptes Rendus Physique</i> , <b>2021</b> , 22, 1-12	1.4
13	Microwave surface transport in narrow-bandgap PdSe <sub>2</sub> -MOSFETs. <i>2D Materials</i> , <b>2021</b> , 8, 035035	5.9
12	2D Materials: Designing the Bending Stiffness of 2D Material Heterostructures (Adv. Mater. 9/2021). <i>Advanced Materials</i> , <b>2021</b> , 33, 2170066	24
11	Interface States in Bilayer Graphene Encapsulated by Hexagonal Boron Nitride. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 40985-40989	9.5
10	High-Pressure Synthesis of Polymorphic Form of Boron Nitride Crystals and Their Impurity Control. <i>Zairyo/Journal of the Society of Materials Science, Japan</i> , <b>2018</b> , 67, 508-513	0.1
9	Phonon Lifetimes in Boron-Isotope-Enriched Graphene- Hexagonal Boron Nitride Devices. <i>Physica Status Solidi - Rapid Research Letters</i> , 2200030	2.5
8	Giant Photoresponse Enhancement in Mixed-Dimensional Van der Waals Heterostructure through Dielectric Engineering (Adv. Mater. Interfaces 9/2022). <i>Advanced Materials Interfaces</i> , <b>2022</b> , 9, 2270048	4.6
7	Fluorinated Graphene Contacts and Passivation Layer for MoS <sub>2</sub> Field Effect Transistors. <i>Advanced Electronic Materials</i> , 2101370	6.4
6	Spin-Valley Relaxation and Exciton-Induced Depolarization Dynamics of Landau-Quantized Electrons in MoSe <sub>2</sub> Monolayer.. <i>Physical Review Letters</i> , <b>2022</b> , 128, 127402	7.4
5	All About the Interface: Do Residual Contaminants at A High-Quality h-BN Monolayer Perylene Diimide Interface Cause Charge Trapping? (Adv. Mater. Interfaces 10/2022). <i>Advanced Materials Interfaces</i> , <b>2022</b> , 9, 2270056	4.6

- 4 Cathodoluminescence of carbon-related defects in hexagonal boron nitride. *Journal of Physics: Conference Series*, **2021**, 2103, 012065 0.3
- 3 Spin dependent charge transfer in MoSe<sub>2</sub>/hBN/Ni hybrid structures. *Applied Physics Letters*, **2021**, 119, 263103 3.4
- 2 Waveguide-Coupled Disk Resonators Fabricated from Hexagonal Boron Nitride. *NATO Science for Peace and Security Series B: Physics and Biophysics*, **2022**, 325-327 0.2
- 1 Defect-assisted tunneling spectroscopy of electronic band structure in twisted bilayer graphene/hexagonal boron nitride moiré superlattices. *Applied Physics Letters*, **2022**, 120, 203103 3.4