

Kostya S. Novoselov
LIST OF MAIN PUBLICATIONS

(refereed papers and patents only)

LAST UPDATED March 2017

1. C. S. Woodhead, J. Roberts, Y. J. Noori, Y. Cao, R. Bernardo-Gavito, P. Tovee, A. Kozikov, K. Novoselov, and R. J. Young
"Increasing the light extraction and longevity of TMDC monolayers using liquid formed micro-lenses"
2D Materials **4**(1), 015032 (2017).
2. M. J. Zhu, D. Ghazaryan, S. K. Son, C. R. Woods, A. Misra, L. He, T. Taniguchi, K. Watanabe, K. S. Novoselov, Y. Cao, and A. Mishchenko
"Stacking transition in bilayer graphene caused by thermally activated rotation"
2D Materials **4**(1), 011013 (2017).
3. D. A. Bandurin, A. V. Tyurnina, G. L. Yu, A. Mishchenko, V. Zolyomi, S. V. Morozov, R. K. Kumar, R. V. Gorbachev, Z. R. Kudrynskyi, S. Pezzini, Z. D. Kovalyuk, U. Zeitler, K. S. Novoselov, A. Patane, L. Eaves, I. V. Grigorieva, V. I. Fal'ko, A. K. Geim, and Y. Cao
"High electron mobility, quantum Hall effect and anomalous optical response in atomically thin InSe"
Nature Nanotechnology **12**(3), 223-227 (2017).
4. M. J. Zhu, A. V. Kretinin, M. D. Thompson, D. A. Bandurin, S. Hu, G. L. Yu, J. Birkbeck, A. Mishchenko, I. J. Vera-Marun, K. Watanabe, T. Taniguchi, M. Polini, J. R. Prance, K. S. Novoselov, A. K. Geim, and M. Ben Shalom
"Edge currents shunt the insulating bulk in gapped graphene"
Nature Communications **8**, 14552 (2017).
5. M. Velicky, P. S. Toth, A. M. Rakowski, A. P. Rooney, A. Kozikov, C. R. Woods, A. Mishchenko, L. Fumagalli, J. Yin, V. Zolyomi, T. Georgiou, S. J. Haigh, K. S. Novoselov, and R. A. W. Dryfe
"Exfoliation of natural van der Waals heterostructures to a single unit cell thickness"
Nature Communications **8**, 14410 (2017).
6. S. Chakraborty, O. P. Marshall, T. G. Folland, Y. J. Kim, A. N. Grigorenko, and K. S. Novoselov
"Gain modulation by graphene plasmons in aperiodic lattice lasers"
Science **351**(6270), 246-248 (2016).
7. D. A. Bandurin, I. Torre, R. K. Kumar, M. Ben Shalom, A. Tomadin, A. Principi, G. H. Auton, E. Khestanova, K. S. Novoselov, I. V. Grigorieva, L. A. Ponomarenko, A. K. Geim, and M. Polini
"Negative local resistance caused by viscous electron backflow in graphene"
Science **351**(6277), 1055-1058 (2016).
8. C. R. Woods, F. Withers, M. J. Zhu, Y. Cao, G. Yu, A. Kozikov, M. Ben Shalom, S. V. Morozov, M. M. van Wijk, A. Fasolino, M. I. Katsnelson, K. Watanabe, T. Taniguchi, A. K. Geim, A. Mishchenko, and K. S. Novoselov
"Macroscopic self-reorientation of interacting two-dimensional crystals"
Nature Communications **7**, 10800 (2016).
9. M. Velicky, M. A. Bissett, C. R. Woods, P. S. Toth, T. Georgiou, I. A. Kinloch, K. S. Novoselov, and R. A. W. Dryfe
"Photoelectrochemistry of pristine mono- and few-layer MoS₂"

- Nano Letters* **16**(3), 2023-2032 (2016).
10. D. H. Deng, K. S. Novoselov, Q. Fu, N. F. Zheng, Z. Q. Tian, and X. H. Bao
"Catalysis with two-dimensional materials and their heterostructures"
Nature Nanotechnology **11**(3), 218-230 (2016).
 11. M. Ben Shalom, M. J. Zhu, V. I. Fal'ko, A. Mishchenko, A. V. Kretinin, K. S. Novoselov, C. R. Woods, K. Watanabe, T. Taniguchi, A. K. Geim, and J. R. Prance
"Quantum oscillations of the critical current and high-field superconducting proximity in ballistic graphene"
Nature Physics **12**(4), 318-U151 (2016).
 12. J. C. Zheng, L. Zhang, A. V. Kretinin, S. V. Morozov, Y. B. Wang, T. Wang, X. J. Li, F. Ren, J. Y. Zhang, C. Y. Lu, J. C. Chen, M. Lu, H. Q. Wang, A. K. Geim, and K. S. Novoselov
"High thermal conductivity of hexagonal boron nitride laminates"
2D Materials **3**(1), 011004 (2016).
 13. E. E. Vdovin, A. Mishchenko, M. T. Greenaway, M. J. Zhu, D. Ghazaryan, A. Misra, Y. Cao, S. V. Morozov, O. Makarovskiy, T. M. Fromhold, A. Patane, G. J. Slotman, M. I. Katsnelson, A. K. Geim, K. S. Novoselov, and L. Eaves
"Phonon-assisted resonant tunneling of electrons in graphene-boron nitride transistors"
Physical Review Letters **116**(18), 186603 (2016).
 14. S. Kaur, Y. J. Kim, H. Milton, D. Mistry, I. M. Syed, J. Bailey, K. S. Novoselov, J. C. Jones, P. B. Morgan, J. Clamp, and H. F. Gleeson
"Graphene electrodes for adaptive liquid crystal contact lenses"
Optics Express **24**(8), 8782-8787 (2016).
 15. A. J. Giles, S. Y. Dai, O. J. Glembocki, A. V. Kretinin, Z. Y. Sun, C. T. Ellis, J. G. Tischler, T. Taniguchi, K. Watanabe, M. M. Fogler, K. S. Novoselov, D. N. Basov, and J. D. Caldwell
"Imaging of anomalous internal reflections of hyperbolic phonon-polaritons in hexagonal boron nitride"
Nano Letters **16**(6), 3858-3865 (2016).
 16. I. Barbolina, C. R. Woods, N. Lozano, K. Kostarelos, K. S. Novoselov, and I. S. Roberts
"Purity of graphene oxide determines its antibacterial activity"
2D Materials **3**(2), 025025 (2016).
 17. X. J. Huang, T. Leng, K. H. Chang, J. C. Chen, K. S. Novoselov, and Z. R. Hu
"Graphene radio frequency and microwave passive components for low cost wearable electronics"
2D Materials **3**(2), 025021 (2016).
 18. S. Schwarz, A. Kozikov, F. Withers, J. K. Maguire, A. P. Foster, S. Dufferwiel, L. Hague, M. N. Makhonin, L. R. Wilson, A. K. Geim, K. S. Novoselov, and A. I. Tartakovskii
"Electrically pumped single-defect light emitters in WSe₂"
2D Materials **3**(2), 025038 (2016).
 19. J. R. Wallbank, D. Ghazaryan, A. Misra, Y. Cao, J. S. Tu, B. A. Piot, M. Potemski, S. Pezzini, S. Wiedmann, U. Zeitler, T. L. M. Lane, S. V. Morozov, M. T. Greenaway, L. Eaves, A. K. Geim, V. I. Fal'ko, K. S. Novoselov, and A. Mishchenko

"Tuning the valley and chiral quantum state of Dirac electrons in van der Waals heterostructures"

Science **353**(6299), 575-579 (2016).

20. K. S. Novoselov, A. Mishchenko, A. Carvalho, and A. H. Castro Neto
"2D materials and van der Waals heterostructures"
Science **353**(6298), aac9439-aac9439 (2016).
21. G. Anagnostopoulos, P. N. Pappas, Z. L. Li, I. A. Kinloch, R. J. Young, K. S. Novoselov, C. Y. Lu, N. Pugno, J. Parthenios, C. Galiotis, and K. Papagelis
"Mechanical stability of flexible graphene-based displays"
ACS Applied Materials & Interfaces **8**(34), 22605-22614 (2016).
22. F. Chiappini, S. Wiedmann, M. Titov, A. K. Geim, R. V. Gorbachev, E. Khestanova, A. Mishchenko, K. S. Novoselov, J. C. Maan, and U. Zeitler
"Magnetotransport in single-layer graphene in a large parallel magnetic field"
Physical Review B **94**(8), 085302 (2016).
23. N. M. Freitag, L. A. Chizhova, P. Nemes-Incze, C. R. Woods, R. V. Gorbachev, Y. Cao, A. K. Geim, K. S. Novoselov, J. Burgdorfer, F. Libisch, and M. Morgenstern
"Electrostatically confined monolayer graphene quantum dots with orbital and valley splittings"
Nano Letters **16**(9), 5798-5805 (2016).
24. J. B. Park, Y. J. Kim, S. M. Kim, J. M. Yoo, Y. Kim, R. Gorbachev, Barbolina, II, S. J. Kim, S. Kang, M. H. Yoon, S. P. Cho, K. S. Novoselov, and B. H. Hong
"Non-destructive electron microscopy imaging and analysis of biological samples with graphene coating"
2D Materials **3**(4), 045004 (2016).
25. T. Godde, D. Schmidt, J. Schmutzler, M. Assmann, J. Debus, F. Withers, E. M. Alexeev, O. Del Pozo-Zamudio, O. V. Skrypka, K. S. Novoselov, M. Bayer, and A. I. Tartakovskii
"Exciton and trion dynamics in atomically thin MoSe₂ and WSe₂: Effect of localization"
Physical Review B **94**(16), 165301 (2016).
26. A. Mishchenko, A. Eckmann, I. V. Grigorieva, and K. S. Novoselov
in Book **"Fluorination Clusters on Graphene Resolved by Conductive AFM"**
edited by J. Bonca, and S. Kruchinin
Springer, Dordrecht (2016), 19-24.
27. Y. N. Khanin, E. E. Vdovin, A. Mishchenko, J. S. Tu, A. Kozikov, R. V. Gorbachev, and K. S. Novoselov
"Selective spectroscopy of tunneling transitions between the Landau levels in vertical double-gate graphene-boron nitride-graphene heterostructures"
JETP Letters **104**(5), 334-340 (2016).
28. T. G. Folland, O. P. Marshall, Y. J. Kim, K. S. Novoselov, and S. Chakraborty
in Book **"Gain control using graphene plasmons in aperiodic DFB lasers"**
IEEE, New York (2016).
29. E. Lee, T. G. Folland, K. Novoselov, and S. Chakraborty

in Book **"Graphene plasmon-modified THz laser waveguides"**
IEEE, New York (2016).

30. A. R. Jang, S. Hong, C. Hyun, S. I. Yoon, G. Kim, H. Y. Jeong, T. J. Shin, S. O. Park, K. Wong, S. K. Kwak, N. Park, K. Yu, E. Choi, A. Mishchenko, F. Withers, K. S. Novoselov, H. Lim, and H. S. Shin
"Wafer-scale and wrinkle-free epitaxial growth of single-orientated multilayer hexagonal boron nitride on sapphire"
Nano Letters **16**(5), 3360-3366 (2016).
31. F. Withers, O. Del Pozo-Zamudio, A. Mishchenko, A. P. Rooney, A. Gholinia, K. Watanabe, T. Taniguchi, S. J. Haigh, A. K. Geim, A. I. Tartakovskii, and K. S. Novoselov
"Light-emitting diodes by band-structure engineering in van der Waals heterostructures"
Nature Materials **14**(3), 301-306 (2015).
32. D. Shin, J. B. Park, Y.-J. Kim, S. J. Kim, J. H. Kang, B. Lee, S.-P. Cho, B. H. Hong, and K. S. Novoselov
"Growth dynamics and gas transport mechanism of nanobubbles in graphene liquid cells"
Nature Communications **6**, 6068 (2015).
33. A. C. Ferrari, F. Bonaccorso, V. Fal'ko, K. S. Novoselov, S. Roche, P. Boggild, S. Borini, F. H. L. Koppens, V. Palermo, N. Pugno, J. A. Garrido, R. Sordan, A. Bianco, L. Ballerini, M. Prato, E. Lidorikis, J. Kivioja, C. Marinelli, T. Ryhanen, A. Morpurgo, J. N. Coleman, V. Nicolosi, L. Colombo, A. Fert, M. Garcia-Hernandez, A. Bachtold, G. F. Schneider, F. Guinea, C. Dekker, M. Barbone, Z. P. Sun, C. Galiotis, A. N. Grigorenko, G. Konstantatos, A. Kis, M. Katsnelson, L. Vandersypen, A. Loiseau, V. Morandi, D. Neumaier, E. Treossi, V. Pellegrini, M. Polini, A. Tredicucci, G. M. Williams, B. H. Hong, J. H. Ahn, J. M. Kim, H. Zirath, B. J. van Wees, H. van der Zant, L. Occhipinti, A. Di Matteo, I. A. Kinloch, T. Seyller, E. Quesnel, X. L. Feng, K. Teo, N. Rupesinghe, P. Hakonen, S. R. T. Neil, Q. Tannock, T. Lofwanderer, and J. Kinaret
"Science and technology roadmap for graphene, related two-dimensional crystals, and hybrid systems"
Nanoscale **7**(11), 4598-4810 (2015).
34. J. D. Caldwell, and K. S. Novoselov
"Mid-infrared nanophotonics"
Nature Materials **14**(4), 363-366 (2015).
35. Z. L. Li, I. A. Kinloch, R. J. Young, K. S. Novoselov, G. Anagnostopoulos, J. Parthenios, C. Galiotis, K. Papagelis, C. Y. Lu, and L. Britnell
"Deformation of wrinkled graphene"
ACS Nano **9**(4), 3917-3925 (2015).
36. X. J. Huang, T. Leng, X. Zhang, J. C. Chen, K. H. Chang, A. K. Geim, K. S. Novoselov, and Z. R. Hu
"Binder-free highly conductive graphene laminate for low cost printed radio frequency applications"
Applied Physics Letters **106**(20), 203105 (2015).
37. G. W. Mudd, S. A. Svatek, L. Hague, O. Makarovskiy, Z. R. Kudrynskiy, C. J. Mellor, P. H. Beton, L. Eaves, K. S. Novoselov, Z. D. Kovalyuk, E. E. Vdovin, A. J. Marsden, N. R. Wilson, and A. Patane

- "High broad-band photoresponsivity of mechanically formed InSe-graphene van der Waals heterostructures"**
Advanced Materials **27**(25), 3760-3766 (2015).
38. P. N. Li, M. Lewin, A. V. Kretinin, J. D. Caldwell, K. S. Novoselov, T. Taniguchi, K. Watanabe, F. Gaussmann, and T. Taubner
"Hyperbolic phonon-polaritons in boron nitride for near-field optical imaging and focusing"
Nature Communications **6**, 7507 (2015).
39. M. Velicky, M. A. Bissett, P. S. Toth, H. V. Patten, S. D. Worrall, A. N. J. Rodgers, E. W. Hill, I. A. Kinloch, K. S. Novoselov, T. Georgiou, L. Britnell, and R. A. W. Dryfe
"Electron transfer kinetics on natural crystals of MoS₂ and graphite"
Physical Chemistry Chemical Physics **17**(27), 17844-17853 (2015).
40. Y. Cao, A. Mishchenko, G. L. Yu, E. Khestanova, A. P. Rooney, E. Prestat, A. V. Kretinin, P. Blake, M. B. Shalom, C. Woods, J. Chapman, G. Balakrishnan, I. V. Grigorieva, K. S. Novoselov, B. A. Piot, M. Potemski, K. Watanabe, T. Taniguchi, S. J. Haigh, A. K. Geim, and R. V. Gorbachev
"Quality Heterostructures from Two-Dimensional Crystals Unstable in Air by Their Assembly in Inert Atmosphere"
Nano Letters **15**(8), 4914-4921 (2015).
41. M. Velicky, A. J. Cooper, P. S. Toth, H. V. Patten, C. R. Woods, K. S. Novoselov, and R. A. W. Dryfe
"Mechanical stability of substrate-bound graphene in contact with aqueous solutions"
2D Materials **2**(2), 024011 (2015).
42. D. Smith, R. T. Howie, I. F. Crowe, C. L. Simionescu, C. Muryn, V. Vishnyakov, K. S. Novoselov, Y. J. Kim, M. P. Halsall, E. Gregoryanz, and J. E. Proctor
"Hydrogenation of graphene by reaction at high pressure and high temperature"
ACS Nano **9**(8), 8279-8283 (2015).
43. B. Park, J. Park, J. G. Son, Y. J. Kim, S. U. Yu, H. J. Park, D. H. Chae, J. Byun, G. Jeon, S. Huh, S. K. Lee, A. Mishchenko, S. Hyun, T. G. Lee, S. W. Han, J. H. Ahn, Z. Lee, C. Hwang, K. S. Novoselov, K. S. Kim, B. H. Hong, and J. K. Kim
"A facile route for patterned growth of metal-insulator carbon lateral junction through one-pot synthesis"
ACS Nano **9**(8), 8352-8360 (2015).
44. J. Gaskell, L. Eaves, K. S. Novoselov, A. Mishchenko, A. K. Geim, T. M. Fromhold, and M. T. Greenaway
"Graphene-hexagonal boron nitride resonant tunneling diodes as high-frequency oscillators"
Applied Physics Letters **107**(10), 103105 (2015).
45. A. Mishchenko, Y. Cao, G. L. Yu, C. R. Woods, R. V. Gorbachev, K. S. Novoselov, A. K. Geim, and L. S. Levitov
"Nonlocal response and anamorphosis: the case of few-layer black phosphorus"
Nano Letters **15**(10), 6991-6995 (2015).

46. R. T. Lv, G. G. Chen, Q. Li, A. McCreary, A. Botello-Mendez, S. V. Morozov, L. B. Liang, X. Declerck, N. Perea-Lopez, D. A. Cullen, S. M. Feng, A. L. Elias, R. Cruz-Silva, K. Fujisawa, M. Endo, F. Y. Kang, J. C. Charlier, V. Meunier, M. H. Pan, A. R. Harutyunyan, K. S. Novoselov, and M. Terrones
"Ultrasensitive gas detection of large-area boron-doped graphene"
Proceedings of the National Academy of Sciences of the United States of America **112**(47), 14527-14532 (2015).
47. F. Chiappini, S. Wiedmann, K. Novoselov, A. Mishchenko, A. K. Geim, J. C. Maan, and U. Zeitler
"Lifting of the Landau level degeneracy in graphene devices in a tilted magnetic field"
Physical Review B **92**(20), 201412 (2015).
48. S. Dufferwiel, S. Schwarz, F. Withers, A. A. P. Trichet, F. Li, M. Sich, O. Del Pozo-Zamudio, C. Clark, A. Nalitov, D. D. Solnyshkov, G. Malpuech, K. S. Novoselov, J. M. Smith, M. S. Skolnick, D. N. Krizhanovskii, and A. I. Tartakovskii
"Exciton-polaritons in van der Waals heterostructures embedded in tunable microcavities"
Nature Communications **6**, 8579 (2015).
49. M. T. Greenaway, E. E. Vdovin, A. Mishchenko, O. Makarovskiy, A. Patane, J. R. Wallbank, Y. Cao, A. V. Kretinin, M. J. Zhu, S. V. Morozov, V. I. Fal'ko, K. S. Novoselov, A. K. Geim, T. M. Fromhold, and L. Eaves
"Resonant tunnelling between the chiral Landau states of twisted graphene lattices"
Nature Physics **11**(12), 1057-1062 (2015).
50. X. J. Huang, T. Leng, M. J. Zhu, X. Zhang, J. C. Chen, K. Chang, M. Aqeeli, A. K. Geim, K. S. Novoselov, and Z. R. Hu
"Highly flexible and conductive printed graphene for wireless wearable communications applications"
Scientific Reports **5**, 18298 (2015).
51. F. Withers, O. Del Pozo-Zamudio, S. Schwarz, S. Dufferwiel, P. M. Walker, T. Godde, A. P. Rooney, A. Gholinia, C. R. Woods, P. Blake, S. J. Haigh, K. Watanabe, T. Taniguchi, I. L. Aleiner, A. K. Geim, V. I. Fal'ko, A. I. Tartakovskii, and K. S. Novoselov
"WSe₂ light-emitting tunneling transistors with enhanced brightness at room temperature"
Nano Letters **15**(12), 8223-8228 (2015).
52. J. D. Caldwell, A. V. Kretinin, Y. G. Chen, V. Giannini, M. M. Fogler, Y. Francescato, C. T. Ellis, J. G. Tischler, C. R. Woods, A. J. Giles, K. Watanabe, T. Taniguchi, S. A. Maier, and K. S. Novoselov
in Book **"Sub-diffractive, volume-confined polaritons in a natural hyperbolic material: hexagonal boron nitride"**
edited by N. Engheta, M. A. Noginov, and N. I. Zheludev
Spie-Int Soc Optical Engineering, Bellingham (2015), 95440R.
53. Y.-J. Kim, Y. Kim, K. Novoselov, and B. H. Hong
"Engineering electrical properties of graphene: chemical approaches"
2D Materials **2**(4), 42001-42001 (2015).

54. S. Schwarz, S. Dufferwiel, F. Withers, A. A. P. Trichet, F. Li, C. Clark, K. S. Novoselov, J. M. Smith, M. S. Skolnick, D. N. Krizhanovskii, A. I. Tartakovskii, and I. Ievlev
in *Book "Strong exciton-photon coupling in monolayer heterostructures in tunable microcavities"*
IEEE, 345 E 47TH ST, NEW YORK, NY 10017 USA (2015).
55. K. S. Novoselov
"Rapid progress in producing graphene"
Nature **505**(7483), 291-291 (2014).
56. P. S. Toth, A. T. Valota, M. Velicky, I. A. Kinloch, K. S. Novoselov, E. W. Hill, and R. A. W. Dryfe
"Electrochemistry in a drop: a study of the electrochemical behaviour of mechanically exfoliated graphene on photoresist coated silicon substrate"
Chemical Science **5**(2), 582-589 (2014).
57. K. Kostarelos, and K. S. Novoselov
"Exploring the interface of graphene and biology"
Science **344**(6181), 261-263 (2014).
58. P. San-Jose, R. V. Gorbachev, A. K. Geim, K. S. Novoselov, and F. Guinea
"Stacking boundaries and transport in bilayer graphene"
Nano Letters **14**(4), 2052-2057 (2014).
59. P. Goli, H. Ning, X. S. Li, C. Y. Lu, K. S. Novoselov, and A. A. Balandin
"Thermal properties of graphene-copper-graphene heterogeneous films"
Nano Letters **14**(3), 1497-1503 (2014).
60. A. P. A. Raju, A. Lewis, B. Derby, R. J. Young, I. A. Kinloch, R. Zan, and K. S. Novoselov
"Wide-area strain sensors based upon graphene-polymer composite coatings probed by Raman spectroscopy"
Advanced Functional Materials **24**(19), 2865-2874 (2014).
61. C. R. Woods, L. Britnell, A. Eckmann, R. S. Ma, J. C. Lu, H. M. Guo, X. Lin, G. L. Yu, Y. Cao, R. V. Gorbachev, A. V. Kretinin, J. Park, L. A. Ponomarenko, M. I. Katsnelson, Y. N. Gornostyrev, K. Watanabe, T. Taniguchi, C. Casiraghi, H. J. Gao, A. K. Geim, and K. S. Novoselov
"Commensurate-incommensurate transition in graphene on hexagonal boron nitride"
Nature Physics **10**(6), 451-456 (2014).
62. C. Androulidakis, E. N. Koukaras, O. Frank, G. Tsoukleri, D. Sfyris, J. Parthenios, N. Pugno, K. Papagelis, K. S. Novoselov, and C. Galiotis
"Failure processes in embedded monolayer graphene under axial compression"
Scientific Reports **4**, 5271 (2014).
63. A. V. Kretinin, Y. Cao, J. S. Tu, G. L. Yu, R. Jalil, K. S. Novoselov, S. J. Haigh, A. Gholinia, A. Mishchenko, M. Lozada, T. Georgiou, C. R. Woods, F. Withers, P. Blake, G. Eda, A. Wirsig, C. Hucho, K. Watanabe, T. Taniguchi, A. K. Geim, and R. V. Gorbachev
"Electronic properties of graphene encapsulated with different two-dimensional atomic crystals"
Nano Letters **14**(6), 3270-3276 (2014).
64. N. D. Kay, B. J. Robinson, V. I. Fal'ko, K. S. Novoselov, and O. V. Kolosov

- "Electromechanical sensing of substrate charge hidden under atomic 2D crystals"**
Nano Letters **14**(6), 3400-3404 (2014).
65. V. G. Kravets, R. Jalil, Y. J. Kim, D. Ansell, D. E. Aznakayeva, B. Thackray, L. Britnell, B. D. Belle, F. Withers, I. P. Radko, Z. Han, S. I. Bozhevolnyi, K. S. Novoselov, A. K. Geim, and A. N. Grigorenko
"Graphene-protected copper and silver plasmonics"
Scientific Reports **4**, 5517 (2014).
66. T. Georgiou, H. Yang, R. Jalil, J. Chapman, K. S. Novoselov, and A. Mishchenko
"Electrical and optical characterization of atomically thin WS₂"
Dalton Transactions **43**(27), 10388-10391 (2014).
67. G. L. Yu, R. V. Gorbachev, J. S. Tu, A. V. Kretinin, Y. Cao, R. Jalil, F. Withers, L. A. Ponomarenko, B. A. Piot, M. Potemski, D. C. Elias, X. Chen, K. Watanabe, T. Taniguchi, I. V. Grigorieva, K. S. Novoselov, V. I. Fal'ko, A. K. Geim, and A. Mishchenko
"Hierarchy of Hofstadter states and replica quantum Hall ferromagnetism in graphene superlattices"
Nature Physics **10**(7), 525-529 (2014).
68. T. J. Echtermeyer, P. S. Nene, M. Trushin, R. V. Gorbachev, A. L. Eiden, S. Milana, Z. Sun, J. Schliemann, E. Lidorikis, K. S. Novoselov, and A. C. Ferrari
"Photothermoelectric and photoelectric contributions to light detection in metal-graphene-metal photodetectors"
Nano Letters **14**(7), 3733-3742 (2014).
69. F. Withers, H. Yang, L. Britnell, A. P. Rooney, E. Lewis, A. Felten, C. R. Woods, V. S. Romaguera, T. Georgiou, A. Eckmann, Y. J. Kim, S. G. Yeates, S. J. Haigh, A. K. Geim, K. S. Novoselov, and C. Casiraghi
"Heterostructures produced from nanosheet-based inks"
Nano Letters **14**(7), 3987-3992 (2014).
70. Y. Kim, J. Park, J. Kang, J. M. Yoo, K. Choi, E. S. Kim, J. B. Choi, C. Hwang, K. S. Novoselov, and B. H. Hong
"A highly conducting graphene film with dual-side molecular n-doping"
Nanoscale **6**(16), 9545-9549 (2014).
71. M. M. Fogler, L. V. Butov, and K. S. Novoselov
"High-temperature superfluidity with indirect excitons in van der Waals heterostructures"
Nature Communications **5**, 4555 (2014).
72. R. Zan, Q. M. Ramasse, R. Jalil, T. Georgiou, U. Bangert, and K. S. Novoselov
"High angle dark field imaging of two-dimensional crystals"
Electron Microscopy and Analysis Group Conference 2013 (Emag2013) **522**, 012077 (2014).
73. H. Malekpour, K. H. Chang, J. C. Chen, C. Y. Lu, D. L. Nika, K. S. Novoselov, and A. A. Balandin
"Thermal conductivity of graphene laminate"
Nano Letters **14**(9), 5155-5161 (2014).
74. K. Kostarelos, and K. S. Novoselov
"Graphene devices for life"

Nature Nanotechnology **9**(10), 744-745 (2014).

75. A. Mishchenko, J. S. Tu, Y. Cao, R. V. Gorbachev, J. R. Wallbank, M. T. Greenaway, V. E. Morozov, S. V. Morozov, M. J. Zhu, S. L. Wong, F. Withers, C. R. Woods, Y. J. Kim, K. Watanabe, T. Taniguchi, E. E. Vdovin, O. Makarovsky, T. M. Fromhold, V. I. Fal'ko, A. K. Geim, L. Eaves, and K. S. Novoselov
"Twist-controlled resonant tunnelling in graphene/boron nitride/graphene heterostructures"
Nature Nanotechnology **9**(10), 808-813 (2014).
76. J. D. Caldwell, A. V. Kretinin, Y. Chen, V. Giannini, M. M. Fogler, Y. Francescato, C. T. Ellis, J. G. Tischler, C. R. Woods, A. J. Giles, M. Hong, K. Watanabe, T. Taniguchi, S. A. Maier, and K. S. Novoselov
"Sub-diffractive volume-confined polaritons in the natural hyperbolic material hexagonal boron nitride"
Nature Communications **5**, 5221-5221 (2014).
77. R. V. Gorbachev, J. C. W. Song, G. L. Yu, A. V. Kretinin, F. Withers, Y. Cao, A. Mishchenko, I. V. Grigorieva, K. S. Novoselov, L. S. Levitov, and A. K. Geim
"Detecting topological currents in graphene superlattices"
Science **346**(6208), 448-451 (2014).
78. M. Velicky, D. F. Bradley, A. J. Cooper, E. W. Hill, I. A. Kinloch, A. Mishchenko, K. S. Novoselov, H. V. Patten, P. S. Toth, A. T. Valota, S. D. Worrall, and R. A. W. Dryfe
"Electron transfer kinetics on mono- and multilayer graphene"
ACS Nano **8**(10), 10089-10100 (2014).
79. S. Schwarz, S. Dufferwiel, P. M. Walker, F. Withers, A. A. P. Trichet, M. Sich, F. Li, E. A. Chekhovich, D. N. Borisenko, N. N. Kolesnikov, K. S. Novoselov, M. S. Skolnick, J. M. Smith, D. N. Krizhanovskii, and A. I. Tartakovskii
"Two-dimensional metal-chalcogenide films in tunable optical microcavities"
Nano Letters **14**(12), 7003-7008 (2014).
80. E. V. Kurganova, S. Wiedmann, A. J. M. Giesbers, R. V. Gorbachev, K. S. Novoselov, M. I. Katsnelson, T. Tudorovskiy, J. C. Maan, and U. Zeitler
"Quantized coexisting electrons and holes in graphene measured using temperature-dependent magnetotransport"
Physical Review B **87**(8), 085447 (2013).
81. G. L. Yu, R. Jalil, B. Belle, A. S. Mayorov, P. Blake, F. Schedin, S. V. Morozov, L. A. Ponomarenko, F. Chiappini, S. Wiedmann, U. Zeitler, M. I. Katsnelson, A. K. Geim, K. S. Novoselov, and D. C. Elias
"Interaction phenomena in graphene seen through quantum capacitance"
Proceedings of the National Academy of Sciences of the United States of America **110**(9), 3282-3286 (2013).
82. C. Rice, R. J. Young, R. Zan, U. Bangert, D. Wolverson, T. Georgiou, R. Jalil, and K. S. Novoselov
"Raman-scattering measurements and first-principles calculations of strain-induced phonon shifts in monolayer MoS₂"
Physical Review B **87**(8), 081307 (2013).

83. T. Georgiou, R. Jalil, B. D. Belle, L. Britnell, R. V. Gorbachev, S. V. Morozov, Y. J. Kim, A. Gholinia, S. J. Haigh, O. Makarovskiy, L. Eaves, L. A. Ponomarenko, A. K. Geim, K. S. Novoselov, and A. Mishchenko
"Vertical field-effect transistor based on graphene-WS₂ heterostructures for flexible and transparent electronics"
Nature Nanotechnology **8**(2), 100-103 (2013).
84. K. S. Novoselov, and T. Ling
"Graphene architecture"
Physics World (Special issue "Focus on Nanotechnology"), 14-16 (2013).
85. L. A. Ponomarenko, R. V. Gorbachev, G. L. Yu, D. C. Elias, R. Jalil, A. A. Patel, A. Mishchenko, A. S. Mayorov, C. R. Woods, J. R. Wallbank, M. Mucha-Kruczynski, B. A. Piot, M. Potemski, I. V. Grigorieva, K. S. Novoselov, F. Guinea, V. I. Fal'ko, and A. K. Geim
"Cloning of Dirac fermions in graphene superlattices"
Nature **497**(7451), 594-597 (2013).
86. L. Britnell, R. M. Ribeiro, A. Eckmann, R. Jalil, B. D. Belle, A. Mishchenko, Y. J. Kim, R. V. Gorbachev, T. Georgiou, S. V. Morozov, A. N. Grigorenko, A. K. Geim, C. Casiraghi, A. H. C. Neto, and K. S. Novoselov
"Strong light-matter interactions in heterostructures of atomically thin films"
Science **340**(6138), 1311-1314 (2013).
87. Y. Kim, J. M. Pomirol, A. Lombardo, N. G. Kalugin, T. Georgiou, Y. J. Kim, K. S. Novoselov, A. C. Ferrari, J. Kono, O. Kashuba, V. I. Fal'ko, and D. Smirnov
"Measurement of Filling-Factor-Dependent Magnetophonon Resonances in Graphene Using Raman Spectroscopy"
Physical Review Letters **110**(22), 227402 (2013).
88. T. P. Hardcastle, C. R. Seabourne, R. Zan, R. M. D. Brydson, U. Bangert, Q. M. Ramasse, K. S. Novoselov, and A. J. Scott
"Mobile metal adatoms on single layer, bilayer, and trilayer graphene: An ab initio DFT study with van der Waals corrections correlated with electron microscopy data"
Physical Review B **87**(19), 195430 (2013).
89. L. A. Ponomarenko, B. D. Belle, R. Jalil, L. Britnell, R. V. Gorbachev, A. K. Geim, K. S. Novoselov, A. H. C. Neto, L. Eaves, and M. I. Katsnelson
"Field-effect control of tunneling barrier height by exploiting graphene's low density of states"
Journal of Applied Physics **113**(13), 136502 (2013).
90. L. Britnell, R. V. Gorbachev, A. K. Geim, L. A. Ponomarenko, A. Mishchenko, M. T. Greenaway, T. M. Fromhold, K. S. Novoselov, and L. Eaves
"Resonant tunnelling and negative differential conductance in graphene transistors"
Nature Communications **4**, 1794 (2013).
91. V. G. Kravets, F. Schedin, R. Jalil, L. Britnell, R. V. Gorbachev, D. Ansell, B. Thackray, K. S. Novoselov, A. K. Geim, A. V. Kabashin, and A. N. Grigorenko
"Singular phase nano-optics in plasmonic metamaterials for label-free single-molecule detection"

- Nature Materials* **12**(4), 304-309 (2013).
92. A. Eckmann, J. Park, H. Yang, D. Elias, A. S. Mayorov, G. Yu, R. Jalil, K. S. Novoselov, R. V. Gorbachev, M. Lazzeri, A. K. Geim, and C. Casiraghi
"Raman fingerprint of aligned graphene/h-BN superlattices"
Nano Letters **13**(11), 5242–5246 (2013).
93. B. Sachs, T. O. Wehling, K. S. Novoselov, A. I. Lichtenstein, and M. I. Katsnelson
"Ferromagnetic two-dimensional crystals: Single layers of K₂CuF₄"
Physical Review B **88**(20), 201402 (2013).
94. A. Kretinin, G. L. Yu, R. Jalil, Y. Cao, F. Withers, A. Mishchenko, M. I. Katsnelson, K. S. Novoselov, A. K. Geim, and F. Guinea
"Quantum capacitance measurements of electron-hole asymmetry and next-nearest-neighbor hopping in graphene"
Physical Review B **88**(16), 165427 (2013).
95. M. Titov, R. V. Gorbachev, B. N. Narozhny, T. Tudorovskiy, M. Schutt, P. M. Ostrovsky, I. V. Gornyi, A. D. Mirlin, M. I. Katsnelson, K. S. Novoselov, A. K. Geim, and L. A. Ponomarenko
"Giant magnetodrag in graphene at charge neutrality"
Physical Review Letters **111**(16), 166601 (2013).
96. B. Skinner, G. L. Yu, A. V. Kretinin, A. K. Geim, K. S. Novoselov, and B. I. Shklovskii
"Effect of dielectric response on the quantum capacitance of graphene in a strong magnetic field"
Physical Review B **88**(15), 155417 (2013).
97. L. Gong, R. J. Young, I. A. Kinloch, S. J. Haigh, J. H. Warner, J. A. Hinks, Z. W. Xu, L. Li, F. Ding, I. Riaz, R. Jalil, and K. S. Novoselov
"Reversible loss of Bernal stacking during the deformation of few-layer graphene in nanocomposites"
ACS Nano **7**(8), 7287-7294 (2013).
98. D. Brida, A. Tomadin, C. Manzoni, Y. J. Kim, A. Lombardo, S. Milana, R. R. Nair, K. S. Novoselov, A. C. Ferrari, G. Cerullo, and M. Polini
"Ultrafast collinear scattering and carrier multiplication in graphene"
Nature Communications **4**, 1987 (2013).
99. D. Brida, C. Manzoni, G. Cerullo, A. Tomadin, M. Polini, R. R. Nair, A. K. Geim, K. S. Novoselov, S. Milana, A. Lombardo, and A. C. Ferrari
in Book **"Ultrafast non-thermal electron dynamics in single layer graphene"**
edited by M. Chergui *et al.*
E D P Sciences, Cedex A (2013).
100. B. Sachs, L. Britnell, T. O. Wehling, A. Eckmann, R. Jalil, B. D. Belle, A. I. Lichtenstein, M. I. Katsnelson, and K. S. Novoselov
"Doping mechanisms in graphene-MoS₂ hybrids"
Applied Physics Letters **103**(25), 251607 (2013).
101. A. T. Valota, P. S. Toth, Y. J. Kim, B. H. Hong, I. A. Kinloch, K. S. Novoselov, E. W. Hill, and R. A. W. Dryfe

- "Electrochemical investigation of chemical vapour deposition monolayer and bilayer graphene on the microscale"**
Electrochimica Acta **110**, 9-15 (2013).
102. R. Zan, Q. M. Ramasse, R. Jalil, T. Georgiou, U. Bangert, and K. S. Novoselov
"Control of radiation damage in MoS₂ by graphene encapsulation"
ACS Nano **7**(11), 10167-10174 (2013).
103. K. Novoselov, and L. Britnell
"Photovoltaic cell, useful in a light harvesting device, comprises a two-dimensional graphene heterostructure"
Patent number: *WO2013140181-A1*, (2013).
104. D. Brida, C. Manzoni, G. Cerullo, A. Tomadin, M. Polini, R. R. Nair, A. K. Geim, K. S. Novoselov, S. Milana, A. Lombardo, A. C. Ferrari, and Ieee
"Ultrafast Non-Thermal Electron Dynamics in Single Layer Graphene"
2013 Conference on and International Quantum Electronics Conference Lasers and Electro-Optics Europe (Cleo Europe/Iqec) 2013).
105. D. Brida, C. Manzoni, G. Cerullo, A. Tomadin, M. Polini, R. R. Nair, A. K. Geim, K. S. Novoselov, S. Milana, A. Lombardo, and A. C. Ferrari
"Ultrafast non-thermal electron dynamics in single layer graphene", edited by (Ieee, New York, 2013).
106. L. Britnell, R. V. Gorbachev, R. Jalil, B. D. Belle, F. Schedin, A. Mishchenko, T. Georgiou, M. I. Katsnelson, L. Eaves, S. V. Morozov, N. M. R. Peres, J. Leist, A. K. Geim, K. S. Novoselov, and L. A. Ponomarenko
"Field-effect tunneling transistor based on vertical graphene heterostructures"
Science **335**(6071), 947-950 (2012).
107. L. Gong, R. J. Young, I. A. Kinloch, I. Riaz, R. Jalil, and K. S. Novoselov
"Optimizing the reinforcement of polymer-based nanocomposites by graphene"
ACS Nano **6**(3), 2086-2095 (2012).
108. V. G. Kravets, F. Schedin, R. Jalil, L. Britnell, K. S. Novoselov, and A. N. Grigorenko
"Surface hydrogenation and optics of a graphene sheet transferred onto a plasmonic nanoarray"
Journal of Physical Chemistry C **116**(6), 3882-3887 (2012).
109. O. Frank, M. Bousa, I. Riaz, R. Jalil, K. S. Novoselov, G. Tsoukleri, J. Parthenios, L. Kavan, K. Papagelis, and C. Galiotis
"Phonon and structural changes in deformed bernal stacked bilayer graphene"
Nano Letters **12**(2), 687-693 (2012).
110. K. S. Novoselov, and A. H. C. Neto
"Two-dimensional crystals-based heterostructures: materials with tailored properties"
Physica Scripta **T146**, 014006 (2012).
111. R. J. Young, I. A. Kinloch, L. Gong, and K. S. Novoselov
"The mechanics of graphene nanocomposites: a review"
Composites Science and Technology **72**(12), 1459-1476 (2012).

112. S. J. Haigh, A. Gholinia, R. Jalil, S. Romani, L. Britnell, D. C. Elias, K. S. Novoselov, L. A. Ponomarenko, A. K. Geim, and R. Gorbachev
"Cross-sectional imaging of individual layers and buried interfaces of graphene-based heterostructures and superlattices"
Nature Materials **11**(9), 764–767 (2012).
113. A. S. Mayorov, D. C. Elias, I. S. Mukhin, S. V. Morozov, L. A. Ponomarenko, K. S. Novoselov, A. K. Geim, and R. V. Gorbachev
"How close can one approach the Dirac point in graphene experimentally?"
Nano Letters **12**(9), 4629-4634 (2012).
114. U. Bangert, R. Zan, Q. Ramasse, R. Jalil, I. Riaz, K. S. Novoselov, and Iop
in *Book "Metals on BN studied by high resolution transmission electron microscopy"*
(2012), 012050.
115. R. Zan, U. Bangert, Q. Ramasse, and K. S. Novoselov
in *Book "Scanning transmission electron microscopy of metal-graphene interaction"*
(2012), 012069.
116. R. Zan, C. Muryn, U. Bangert, P. Mattocks, P. Wincott, D. Vaughan, X. S. Li, L. Colombo, R. S. Ruoff, B. Hamilton, and K. S. Novoselov
"Scanning tunnelling microscopy of suspended graphene"
Nanoscale **4**(10), 3065-3068 (2012).
117. Y. A. Kim, K. Fujisawa, H. Muramatsu, T. Hayashi, M. Endo, T. Fujimori, K. Kaneko, M. Terrones, J. Behrends, A. Eckmann, C. Casiraghi, K. S. Novoselov, R. Saito, and M. S. Dresselhaus
"Raman spectroscopy of boron-doped single-layer graphene"
ACS Nano **6**(7), 6293-6300 (2012).
118. Q. M. Ramasse, R. Zan, U. Bangert, D. W. Boukhvalov, Y. W. Son, and K. S. Novoselov
"Direct experimental evidence of metal-mediated etching of suspended graphene"
ACS Nano **6**(5), 4063-4071 (2012).
119. R. Zan, U. Bangert, Q. Ramasse, and K. S. Novoselov
"Interaction of metals with suspended graphene observed by transmission electron microscopy"
Journal of Physical Chemistry Letters **3**(7), 953-958 (2012).
120. A. C. Ferrari, K. S. Novoselov, M. Chhowalla, L. Manna, and A. L. da Rosa
"Science and technology of nanotubes, nanowires and graphene Preface"
Physica E-Low-Dimensional Systems & Nanostructures **44**(6), 921-923 (2012).
121. S. Neubeck, L. A. Ponomarenko, A. S. Mayorov, S. V. Morozov, R. Yang, and K. S. Novoselov
"Scanning gate microscopy on a graphene quantum point contact"
Physica E-Low-Dimensional Systems & Nanostructures **44**(6), 1002-1004 (2012).
122. L. Britnell, R. V. Gorbachev, R. Jalil, B. D. Belle, F. Schedin, M. I. Katsnelson, L. Eaves, S. V. Morozov, A. S. Mayorov, N. M. R. Peres, A. H. C. Neto, J. Leist, A. K. Geim, L. A. Ponomarenko, and K. S. Novoselov

- "Electron tunneling through ultrathin boron nitride crystalline barriers"**
Nano Letters **12**(3), 1707-1710 (2012).
123. A. Eckmann, A. Felten, A. Mishchenko, L. Britnell, R. Krupke, K. S. Novoselov, and C. Casiraghi
"Probing the nature of defects in graphene by Raman spectroscopy"
Nano Letters **12**(8), 3925-3930 (2012).
124. R. Zan, Q. M. Ramasse, U. Bangert, and K. S. Novoselov
"Graphene reknits its holes"
Nano Letters **12**(8), 3936-3940 (2012).
125. R. Zan, U. Bangert, C. Muryn, P. Mattocks, B. Hamilton, K. S. Novoselov, and Iop
in Book **"Scanning tunnelling microscopy of suspended graphene"**
(2012), 012070.
126. A. N. Grigorenko, M. Polini, and K. S. Novoselov
"Graphene plasmonics"
Nature Photonics **6**(11), 749-758 (2012).
127. K. S. Novoselov, V. I. Fal'ko, L. Colombo, P. R. Gellert, M. G. Schwab, and K. Kim
"A roadmap for graphene"
Nature **490**(7419), 192-200 (2012).
128. V. I. Konov, V. D. Frolov, E. V. Zavedeev, V. V. Kononenko, S. V. Kosheleva, A. A. Khomich, V. G. Pereverzev, A. Grigorenko, and K. S. Novoselov
"Fabrication of graphene nanostructures by probe nanoablation"
Bulletin of the Lebedev Physics Institute **39**(12), 330-333 (2012).
129. R. V. Gorbachev, A. K. Geim, M. I. Katsnelson, K. S. Novoselov, T. Tudorovskiy, I. V. Grigorieva, A. H. MacDonald, S. V. Morozov, K. Watanabe, T. Taniguchi, and L. A. Ponomarenko
"Strong Coulomb drag and broken symmetry in double-layer graphene"
Nature Physics **8**(12), 896-901 (2012).
130. D. Brida, C. Manzoni, G. Cerullo, A. Tomadin, M. Polini, R. R. Nair, A. K. Geim, K. S. Novoselov, S. Milana, A. Lombardo, and A. C. Ferrari
"Ultrafast non-thermal electron dynamics in single layer graphene"
in 2012 Conference on Lasers and Electro-Optics, Published by IEEE, 345 E 47TH ST, NEW YORK, NY 10017 USA, (2012).
131. A. K. Geim, K. S. Novoselov, R. V. Gorbachev, L. A. Ponomarenko, L. Britnell, A. Geim, K. Novoselov, R. Gorbachev, and L. Ponomarenko
"Graphene heterostructure used in fabrication of transistor, has first graphene layer, second graphene layer, and spacer layer positioned between the first and second graphene layers"
Patent number: *WO2012127244-A2; WO2012127244-A3; US2014008616-A1; EP2689460-A2; CN103493203-A; KR2014027958-A*, (2012).
132. A. K. Geim, K. S. Novosolev, R. V. Gorbachev, L. A. Ponomarenko, A. Geim, K. Novoselov, R. Gorbachev, L. Ponomarenko, and K. S. Novoselov

"Graphene heterostructure used for electronic components used in electronic circuits, and for electronic devices, consists of graphene layer positioned between two encapsulation layers"

Patent number: WO2012127245-A2; WO2012127245-A3; US2014008611-A1; EP2689459-A2; CN103493204-A; KR2014027962-A, (2012).

133. J. Zabel, R. R. Nair, A. Ott, T. Georgiou, A. K. Geim, K. S. Novoselov, and C. Casiraghi
"Raman spectroscopy of graphene and bilayer under biaxial strain: bubbles and balloons"
Nano Letters **12**(2), 617-621 (2012).
134. J. Lee, K. S. Novoselov, and H. S. Shin
"Interaction between metal and graphene: dependence on the layer number of graphene"
ACS Nano **5**(1), 608-612 (2011).
135. A. Luican, G. H. Li, A. Reina, J. Kong, R. R. Nair, K. S. Novoselov, A. K. Geim, and E. Y. Andrei
"Single-layer behavior and its breakdown in twisted graphene layers"
Physical Review Letters **106**(12), 126802 (2011).
136. O. Frank, M. Mohr, J. Maultzsch, C. Thomsen, I. Riaz, R. Jalil, K. S. Novoselov, G. Tsoukleri, J. Parthenios, K. Papagelis, L. Kavan, and C. Galiotis
"Raman 2D-band splitting in graphene: theory and experiment"
ACS Nano **5**(3), 2231-2239 (2011).
137. R. V. Gorbachev, I. Riaz, R. R. Nair, R. Jalil, L. Britnell, B. D. Belle, E. W. Hill, K. S. Novoselov, K. Watanabe, T. Taniguchi, A. K. Geim, and P. Blake
"Hunting for monolayer boron nitride: optical and Raman signatures"
Small **7**(4), 465-468 (2011).
138. R. Zan, U. Bangert, Q. Ramasse, and K. S. Novoselov
"Metal-graphene interaction studied via atomic resolution scanning transmission electron microscopy"
Nano Letters **11**(3), 1087-1092 (2011).
139. F. Carbone, G. Abock, A. Cannizzo, F. Van Mourik, R. R. Nair, A. K. Geim, K. S. Novoselov, and M. Chergui
"Femtosecond carrier dynamics in bulk graphite and graphene paper"
Chemical Physics Letters **504**(1-3), 37-40 (2011).
140. O. Frank, G. Tsoukleri, I. Riaz, K. Papagelis, J. Parthenios, A. C. Ferrari, A. K. Geim, K. S. Novoselov, and C. Galiotis
"Development of a universal stress sensor for graphene and carbon fibres"
Nature Communications **2**, 255 (2011).
141. V. G. Kravets, R. R. Nair, P. Blake, L. A. Ponomarenko, I. Riaz, R. Jalil, S. Anisimova, A. N. Grigorenko, K. S. Novoselov, and A. K. Geim
in *Book "Optics of flat carbon - spectroscopic ellipsometry of graphene flakes"*
edited by J. Bonca, and S. Kruchinin
(2011), 3-9.
142. R. J. Young, L. Gong, I. A. Kinloch, I. Riaz, R. Jalil, and K. S. Novoselov
"Strain mapping in a graphene monolayer nanocomposite"

- ACS Nano* **5**(4), 3079-3084 (2011).
143. A. S. Mayorov, R. V. Gorbachev, S. V. Morozov, L. Britnell, R. Jalil, L. A. Ponomarenko, P. Blake, K. S. Novoselov, K. Watanabe, T. Taniguchi, and A. K. Geim
"Micrometer-Scale Ballistic Transport in Encapsulated Graphene at Room Temperature"
Nano Letters **11**(6), 2396-2399 (2011).
144. D. A. Abanin, S. V. Morozov, L. A. Ponomarenko, R. V. Gorbachev, A. S. Mayorov, M. I. Katsnelson, K. Watanabe, T. Taniguchi, K. S. Novoselov, L. S. Levitov, and A. K. Geim
"Giant Nonlocality Near the Dirac Point in Graphene"
Science **332**(6027), 328-330 (2011).
145. D. C. Elias, R. V. Gorbachev, A. S. Mayorov, S. V. Morozov, A. A. Zhukov, P. Blake, L. A. Ponomarenko, I. V. Grigorieva, K. S. Novoselov, F. Guinea, and A. K. Geim
"Dirac cones reshaped by interaction effects in suspended graphene"
Nature Physics **7**(9), 701-704 (2011).
146. T. Georgiou, L. Britnell, P. Blake, R. V. Gorbachev, A. Gholinia, A. K. Geim, C. Casiraghi, and K. S. Novoselov
"Graphene bubbles with controllable curvature"
Applied Physics Letters **99**(9), 093103 (2011).
147. D. A. Abanin, R. V. Gorbachev, K. S. Novoselov, A. K. Geim, and L. S. Levitov
"Giant spin-Hall effect induced by the Zeeman interaction in graphene"
Physical Review Letters **107**(9), 096601 (2011).
148. A. S. Mayorov, D. C. Elias, M. Mucha-Kruczynski, R. V. Gorbachev, T. Tudorovskiy, A. Zhukov, S. V. Morozov, M. I. Katsnelson, V. I. Fal'ko, A. K. Geim, and K. S. Novoselov
"Interaction-driven spectrum reconstruction in bilayer graphene"
Science **333**(6044), 860-863 (2011).
149. K. S. Novoselov
"Nobel Lecture: Graphene: Materials in the Flatland"
Reviews of Modern Physics **83**(3), 837-849 (2011).
150. A. H. C. Neto, and K. Novoselov
"New directions in science and technology: two-dimensional crystals"
Reports on Progress in Physics **74**(8), 082501 (2011).
151. K. S. Novoselov
"Graphene: Materials in the Flatland (Nobel Lecture)"
Angewandte Chemie-International Edition **50**(31), 6986-7002 (2011).
152. E. W. Hill, A. Vijayaraghavan, and K. Novoselov
"Graphene Sensors"
IEEE Sensors Journal **11**(12), 3161-3170 (2011).
153. A. T. Valota, I. A. Kinloch, K. S. Novoselov, C. Casiraghi, A. Eckmann, E. W. Hill, and R. A. W. Dryfe
"Electrochemical Behavior of Monolayer and Bilayer Graphene"
ACS Nano **5**(11), 8809-8815 (2011).

154. R. Zan, U. Bangert, Q. Ramasse, and K. S. Novoselov
"Imaging of Bernal stacked and misoriented graphene and boron nitride: experiment and simulation"
Journal of Microscopy **244**(2), 152-158 (2011).
155. R. Zan, U. Bangert, Q. Ramasse, and K. S. Novoselov
"Evolution of Gold Nanostructures on Graphene"
Small **7**(20), 2868-2872 (2011).
156. T. Moldt, A. Eckmann, P. Klar, S. V. Morozov, A. A. Zhukov, K. S. Novoselov, and C. Casiraghi
"High-yield production and transfer of graphene flakes obtained by anodic bonding"
ACS Nano **5**(10), 7700-7706 (2011).
157. S. Wiedmann, H. J. van Elferen, E. V. Kurganova, M. I. Katsnelson, A. J. M. Giesbers, A. Veligura, B. J. van Wees, R. V. Gorbachev, K. S. Novoselov, J. C. Maan, and U. Zeitler
"Coexistence of electron and hole transport in graphene"
Physical Review B **84**(11), 115314 (2011).
158. E. V. Kurganova, H. J. van Elferen, A. McCollam, L. A. Ponomarenko, K. S. Novoselov, A. Veligura, B. J. van Wees, J. C. Maan, and U. Zeitler
"Spin splitting in graphene studied by means of tilted magnetic-field experiments"
Physical Review B **84**(12), 121407 (2011).
159. T. J. Echtermeyer, L. Britnell, P. K. Jasnós, A. Lombardo, R. V. Gorbachev, A. N. Grigorenko, A. K. Geim, A. C. Ferrari, and K. S. Novoselov
"Strong plasmonic enhancement of photovoltage in graphene"
Nature Communications **2**, 458 (2011).
160. L. A. Ponomarenko, A. K. Geim, A. A. Zhukov, R. Jalil, S. V. Morozov, K. S. Novoselov, I. V. Grigorieva, E. H. Hill, V. V. Cheianov, V. I. Fal'ko, K. Watanabe, T. Taniguchi, and R. V. Gorbachev
"Tunable metal-insulator transition in double-layer graphene heterostructures"
Nature Physics **7**(12), 958-961 (2011).
161. K. S. Novoselov
"Graphene: materials in the Flatland"
International Journal of Modern Physics B **25**(30), 4081-4106 (2011).
162. T. J. Echtermeyer, L. Britnell, S. Milana, A. Lombardo, R. V. Gorbachev, A. N. Grigorenko, A. K. Geim, K. S. Novoselov, and A. C. Ferrari
"Plasmonic nanostructure enhanced graphene-based photodetector"
Atti della Accademia Peloritana dei Pericolanti, Classe di Scienze Fisiche, Matematiche e Naturali **89**(1), C1V89S81P030 (2011).
163. A. Geim, R. Raveendran-Nair, K. Novoselov, and N. R. Raebindeuran
"New functionalized graphene compound comprising graphene and fluorine having specific fluorine to carbon ratio used as structural material, electronic component, optical component, magnetic component or coating"
Patent number: *US2011303121-A1; WO2011154748-A1; EP2580158-A1; CN103003197-A; JP2013529176-W; KR2013133123-A*, (2011).

164. I. A. Kinloch, R. J. Young, and K. S. Novoselov
"Nanocomposite material, useful to produce electronic device and/or structural material, comprises a substrate, optionally functionalized graphene, optional adhesive component to adhere graphene to substrate and an optional protective layer"
Patent number: WO2011086391-A1; EP2526050-A1; US2012301707-A1; KR2012128614-A; CN102741165-A; JP2013517200-W, (2011).
165. A. H. C. Neto, and K. Novoselov
"Two-dimensional crystals: beyond graphene"
Materials Express **1**(1), 10-17 (2011).
166. O. Frank, G. Tsoukleri, J. Parthenios, K. Papagelis, I. Riaz, R. Jalil, K. S. Novoselov, M. Kalbac, L. Kavan, C. Galiotis, and T. Ltd
"Graphene under uniaxial deformation: a Raman study"
Nanocon 2011, 225-230 (2011).
167. L. Gong, I. A. Kinloch, R. J. Young, I. Riaz, R. Jalil, and K. S. Novoselov
"Interfacial stress transfer in a graphene monolayer nanocomposite"
Advanced Materials **22**(24), 2694-2697 (2010).
168. O. Frank, G. Tsoukleri, J. Parthenios, K. Papagelis, I. Riaz, R. Jalil, K. S. Novoselov, and C. Galiotis
"Compression behavior of single-layer graphenes"
ACS Nano **4**(6), 3131-3138 (2010).
169. D. Sen, K. S. Novoselov, P. M. Reis, and M. J. Buehler
"Tearing graphene sheets from adhesive substrates produces tapered nanoribbons"
Small **6**(10), 1108-1116 (2010).
170. V. G. Kravets, A. N. Grigorenko, R. R. Nair, P. Blake, S. Anissimova, K. S. Novoselov, and A. K. Geim
"Spectroscopic ellipsometry of graphene and an exciton-shifted van Hove peak in absorption"
Physical Review B **81**(15), 155413 (2010).
171. E. V. Castro, K. S. Novoselov, S. V. Morozov, N. M. R. Peres, J. dos Santos, J. Nilsson, F. Guinea, A. K. Geim, and A. H. C. Neto
"Electronic properties of a biased graphene bilayer"
Journal of Physics-Condensed Matter **22**(17), 175503 (2010).
172. F. Guinea, A. K. Geim, M. I. Katsnelson, and K. S. Novoselov
"Generating quantizing pseudomagnetic fields by bending graphene ribbons"
Physical Review B **81**(3), 035408 (2010).
173. S. Neubeck, Y. M. You, Z. H. Ni, P. Blake, Z. X. Shen, A. K. Geim, and K. S. Novoselov
"Direct determination of the crystallographic orientation of graphene edges by atomic resolution imaging"
Applied Physics Letters **97**(5), 053110 (2010).

174. E. V. Kurganova, A. J. M. Giesbers, R. V. Gorbachev, A. K. Geim, K. S. Novoselov, J. C. Maan, and U. Zeitler
"Quantum Hall activation gaps in bilayer graphene"
Solid State Communications **150**(45-46), 2209-2211 (2010).
175. F. Schedin, E. Lidorikis, A. Lombardo, V. G. Kravets, A. K. Geim, A. N. Grigorenko, K. S. Novoselov, and A. C. Ferrari
"Surface-enhanced Raman spectroscopy of graphene"
ACS Nano **4**(10), 5617-5626 (2010).
176. R. R. Nair, P. Blake, J. R. Blake, R. Zan, S. Anissimova, U. Bangert, A. P. Golovanov, S. V. Morozov, A. K. Geim, K. S. Novoselov, and T. Latychevskaia
"Graphene as a transparent conductive support for studying biological molecules by transmission electron microscopy"
Applied Physics Letters **97**(15), 153102 (2010).
177. Z. H. Ni, L. A. Ponomarenko, R. R. Nair, R. Yang, S. Anissimova, I. V. Grigorieva, F. Schedin, P. Blake, Z. X. Shen, E. H. Hill, K. S. Novoselov, and A. K. Geim
"On resonant scatterers as a factor limiting carrier mobility in graphene"
Nano Letters **10**(10), 3868-3872 (2010).
178. L. A. Ponomarenko, R. Yang, R. V. Gorbachev, P. Blake, A. S. Mayorov, K. S. Novoselov, M. I. Katsnelson, and A. K. Geim
"Density of states and zero Landau level probed through capacitance of graphene"
Physical Review Letters **105**(13), 136801 (2010).
179. S. Neubeck, L. A. Ponomarenko, F. Freitag, A. J. M. Giesbers, U. Zeitler, S. V. Morozov, P. Blake, A. K. Geim, and K. S. Novoselov
"From one electron to one hole: Quasiparticle counting in graphene quantum dots determined by electrochemical and plasma etching"
Small **6**(14), 1469-1473 (2010).
180. R. R. Nair, W. Ren, R. Jalil, I. Riaz, V. G. Kravets, L. Britnell, P. Blake, F. Schedin, A. S. Mayorov, S. Yuan, M. I. Katsnelson, H.-M. Cheng, W. Strupinski, L. G. Bulusheva, A. V. Okotrub, I. V. Grigorieva, A. N. Grigorenko, K. S. Novoselov, and A. K. Geim
"Fluorographene: a two-dimensional counterpart of teflon"
Small **6**(24), 2877-2884 (2010).
181. E. V. Castro, H. Ochoa, M. I. Katsnelson, R. V. Gorbachev, D. C. Elias, K. S. Novoselov, A. K. Geim, and F. Guinea
"Limits on charge carrier mobility in suspended graphene due to flexural phonons"
Physical Review Letters **105**(26), 266601 (2010).
182. S. Neubeck, F. Freitag, R. Yang, and K. S. Novoselov
"Scanning probe lithography on graphene"
Physica Status Solidi B-Basic Solid State Physics **247**(11-12), 2904-2908 (2010).
183. M. Brooks, A. Geim, and K. Novoselov
"The fun way to win a Nobel prize"
New Scientist **208**(2787), 32-33 (2010).

184. G. Rietveld, H. J. van Elferen, A. J. M. Giesbers, A. Veligura, U. Zeitler, K. S. Novoselov, B. J. van Wees, A. K. Geim, and J. C. Maan
"Preparation and characterisation of exfoliated graphene for quantum resistance metrology."
in 2010 Conference on Precision Electromagnetic Measurements Cpem, Published by IEEE, (2010).
185. A. J. M. Giesbers, U. Zeitler, L. A. Ponomarenko, R. Yang, K. S. Novoselov, A. K. Geim, and J. C. Maan
"Scaling of the quantum Hall plateau-plateau transition in graphene"
Physical Review B **80**(24), 241411 (2009).
186. K. S. Novoselov
"Graphene: Cracking bilayers"
Nature Physics **5**(12), 862-863 (2009).
187. T. Gokus, R. R. Nair, A. Bonetti, M. Bohmler, A. Lombardo, K. S. Novoselov, A. K. Geim, A. C. Ferrari, and A. Hartschuh
"Making graphene luminescent by oxygen plasma treatment"
ACS Nano **3**(12), 3963-3968 (2009).
188. K. S. Novoselov
"Graphene: The magic of flat carbon"
ECS Transactions **19**(5), 3-7 (2009).
189. A. J. M. Giesbers, L. A. Ponomarenko, K. S. Novoselov, A. K. Geim, M. I. Katsnelson, J. C. Maan, and U. Zeitler
"Gap opening in the zeroth Landau level of graphene"
Physical Review B **80**(20), 201403 (2009).
190. G. Tsoukleri, J. Parthenios, K. Papagelis, R. Jalil, A. C. Ferrari, A. K. Geim, K. S. Novoselov, and C. Galiotis
"Subjecting a graphene monolayer to tension and compression"
Small **5**(21), 2397-2402 (2009).
191. A. B. Kuzmenko, I. Crassee, D. van der Marel, P. Blake, and K. S. Novoselov
"Determination of the gate-tunable band gap and tight-binding parameters in bilayer graphene using infrared spectroscopy"
Physical Review B **80**(16), 165406 (2009).
192. A. B. Kuzmenko, L. Benfatto, E. Cappelluti, I. Crassee, D. van der Marel, P. Blake, K. S. Novoselov, and A. K. Geim
"Gate tunable infrared phonon anomalies in bilayer graphene"
Physical Review Letters **103**(11), 116804 (2009).
193. J. E. Proctor, E. Gregoryanz, K. S. Novoselov, M. Lotya, J. N. Coleman, and M. P. Halsall
"High-pressure Raman spectroscopy of graphene"
Physical Review B **80**(7), 073408 (2009).
194. K. Novoselov
"Beyond the wonder material"

Physics World **22**(8), 27-30 (2009).

195. P. Blake, R. Yang, S. V. Morozov, F. Schedin, L. A. Ponomarenko, A. A. Zhukov, R. R. Nair, I. V. Grigorieva, K. S. Novoselov, and A. K. Geim
"Influence of metal contacts and charge inhomogeneity on transport properties of graphene near the neutrality point"
Solid State Communications **149**(27-28), 1068-1071 (2009).
196. T. M. G. Mohiuddin, A. A. Zhukov, D. C. Elias, E. W. Hill, S. V. Morozov, A. K. Geim, and K. S. Novoselov
"Transverse spin transport in graphene"
International Journal of Modern Physics B **23**(12-13), 2641-2646 (2009).
197. L. A. Ponomarenko, R. Yang, T. M. Mohiuddin, M. I. Katsnelson, K. S. Novoselov, S. V. Morozov, A. A. Zhukov, F. Schedin, E. W. Hill, and A. K. Geim
"Effect of a high-kappa environment on charge carrier mobility in graphene"
Physical Review Letters **102**(20), 206603 (2009).
198. T. M. G. Mohiuddin, A. Lombardo, R. R. Nair, A. Bonetti, G. Savini, R. Jalil, N. Bonini, D. M. Basko, C. Galiotis, N. Marzari, K. S. Novoselov, A. K. Geim, and A. C. Ferrari
"Uniaxial strain in graphene by Raman spectroscopy: G peak splitting, Gruneisen parameters, and sample orientation"
Physical Review B **79**(20), 205433 (2009).
199. A. H. Castro Neto, F. Guinea, N. M. R. Peres, K. S. Novoselov, and A. K. Geim
"The electronic properties of graphene"
Reviews of Modern Physics **81**(1), 109-162 (2009).
200. A. B. Kuzmenko, E. van Heumen, D. van der Marel, P. Lerch, P. Blake, K. S. Novoselov, and A. K. Geim
"Infrared spectroscopy of electronic bands in bilayer graphene"
Physical Review B **79**(11), 115441 (2009).
201. C. Casiraghi, A. Hartschuh, H. Qian, S. Piscanec, C. Georgi, A. Fasoli, K. S. Novoselov, D. M. Basko, and A. C. Ferrari
"Raman spectroscopy of graphene edges"
Nano Letters **9**(4), 1433-1441 (2009).
202. D. C. Elias, R. R. Nair, T. M. G. Mohiuddin, S. V. Morozov, P. Blake, M. P. Halsall, A. C. Ferrari, D. W. Boukhvalov, M. I. Katsnelson, A. K. Geim, and K. S. Novoselov
"Control of graphene's properties by reversible hydrogenation: Evidence for graphane"
Science **323**(5914), 610-613 (2009).
203. T. M. G. Mohiuddin, E. Hill, D. Elias, A. Zhukov, K. Novoselov, and A. Geim
"Graphene in multilayered CPP spin valves"
IEEE Transactions on Magnetism **44**(11), 2624-2627 (2008).
204. A. J. M. Giesbers, G. Rietveld, E. Houtzager, U. Zeitler, R. Yang, K. S. Novoselov, A. K. Geim, and J. C. Maan
"Quantum resistance metrology in graphene"
Applied Physics Letters **93**(22), 222109 (2008).

205. S. V. Morozov, K. S. Novoselov, and A. K. Geim
"Electron transport in graphene"
Physics-Uspekhi **51**(7), 744-748 (2008).
206. U. Bangert, T. Eberlein, R. R. Nair, R. Jones, M. Gass, A. L. Bleloch, K. S. Novoselov, A. Geim, and P. R. Briddon
"STEM plasmon spectroscopy of free standing graphene"
Physica Status Solidi A - Applications and Materials Science **205**(9), 2265-2269 (2008).
207. A. J. M. Giesbers, U. Zeitler, S. Neubeck, F. Freitag, K. S. Novoselov, and J. C. Maan
"Nanolithography and manipulation of graphene using an atomic force microscope"
Solid State Communications **147**(9-10), 366-369 (2008).
208. T. J. Booth, P. Blake, R. R. Nair, D. Jiang, E. W. Hill, U. Bangert, A. Bleloch, M. Gass, K. S. Novoselov, M. I. Katsnelson, and A. K. Geim
"Macroscopic graphene membranes and their extraordinary stiffness"
Nano Letters **8**(8), 2442-2446 (2008).
209. K. S. Novoselov, and A. K. Geim
"Quantum Hall effect in graphene"
IEEE, New York (2008).
210. T. Eberlein, U. Bangert, R. R. Nair, R. Jones, M. Gass, A. L. Bleloch, K. S. Novoselov, A. Geim, and P. R. Briddon
"Plasmon spectroscopy of free-standing graphene films"
Physical Review B **77**(23), 233406 (2008).
211. P. Blake, P. D. Brimicombe, R. R. Nair, T. J. Booth, D. Jiang, F. Schedin, L. A. Ponomarenko, S. V. Morozov, H. F. Gleeson, E. W. Hill, A. K. Geim, and K. S. Novoselov
"Graphene-based liquid crystal device"
Nano Letters **8**(6), 1704-1708 (2008).
212. R. R. Nair, P. Blake, A. N. Grigorenko, K. S. Novoselov, T. J. Booth, T. Stauber, N. M. R. Peres, and A. K. Geim
"Fine structure constant defines visual transparency of graphene"
Science **320**(5881), 1308-1308 (2008).
213. L. A. Ponomarenko, F. Schedin, M. I. Katsnelson, R. Yang, E. W. Hill, K. S. Novoselov, and A. K. Geim
"Chaotic dirac billiard in graphene quantum dots"
Science **320**(5874), 356-358 (2008).
214. A. Das, S. Pisana, B. Chakraborty, S. Piscanec, S. K. Saha, U. V. Waghmare, K. S. Novoselov, H. R. Krishnamurthy, A. K. Geim, A. C. Ferrari, and A. K. Sood
"Monitoring dopants by Raman scattering in an electrochemically top-gated graphene transistor"
Nature Nanotechnology **3**(4), 210-215 (2008).
215. S. V. Morozov, K. S. Novoselov, M. I. Katsnelson, F. Schedin, D. C. Elias, J. A. Jaszczak, and A. K. Geim

- "Giant intrinsic carrier mobilities in graphene and its bilayer"**
Physical Review Letters **100**(1), 016602 (2008).
216. T. O. Wehling, K. S. Novoselov, S. V. Morozov, E. E. Vdovin, M. I. Katsnelson, A. K. Geim, and A. I. Lichtenstein
"Molecular doping of graphene"
Nano Letters **8**(1), 173-177 (2008).
217. K. C. Chuang, R. S. Deacon, R. J. Nicholas, K. S. Novoselov, and A. K. Geim
"Cyclotron resonance of electrons and holes in graphene monolayers"
Philosophical Transactions of the Royal Society a-Mathematical Physical and Engineering Sciences **366**(1863), 237-243 (2008).
218. C. Casiraghi, S. Pisana, K. S. Novoselov, A. K. Geim, and A. C. Ferrari
"Raman fingerprint of charged impurities in graphene"
Applied Physics Letters **91**(23), 233108 (2007).
219. K. Novoselov, and A. Geim
"Graphene detects single molecule of toxic gas"
Materials Technology **22**(3), 178-179 (2007).
220. E. V. Castro, K. S. Novoselov, S. V. Morozov, N. M. R. Peres, J. Dos Santos, J. Nilsson, F. Guinea, A. K. Geim, and A. H. C. Neto
"Biased bilayer graphene: Semiconductor with a gap tunable by the electric field effect"
Physical Review Letters **99**(21), 216802 (2007).
221. K. Novoselov
"Mind the gap"
Nature Materials **6**(10), 720-721 (2007).
222. C. Casiraghi, A. Hartschuh, E. Lidorikis, H. Qian, H. Harutyunyan, T. Gokus, K. S. Novoselov, and A. C. Ferrari
"Rayleigh imaging of graphene and graphene layers"
Nano Letters **7**(9), 2711-2717 (2007).
223. F. Schedin, A. K. Geim, S. V. Morozov, E. W. Hill, P. Blake, M. I. Katsnelson, and K. S. Novoselov
"Detection of individual gas molecules adsorbed on graphene"
Nature Materials **6**(9), 652-655 (2007).
224. R. S. Deacon, K. C. Chuang, R. J. Nicholas, K. S. Novoselov, and A. K. Geim
"Cyclotron resonance study of the electron and hole velocity in graphene monolayers"
Physical Review B **76**(8), 081406 (2007).
225. P. Blake, E. W. Hill, A. H. C. Neto, K. S. Novoselov, D. Jiang, R. Yang, T. J. Booth, and A. K. Geim
"Making graphene visible"
Applied Physics Letters **91**(6), 063124 (2007).
226. M. I. Katsnelson, and K. S. Novoselov

- "Graphene: New bridge between condensed matter physics and quantum electrodynamics"**
Solid State Communications **143**(1-2), 3-13 (2007).
227. J. C. Meyer, A. K. Geim, M. I. Katsnelson, K. S. Novoselov, D. Obergfell, S. Roth, C. Girit, and A. Zettl
"On the roughness of single- and bi-layer graphene membranes"
Solid State Communications **143**(1-2), 101-109 (2007).
228. D. A. Abanin, K. S. Novoselov, U. Zeitler, P. A. Lee, A. K. Geim, and L. S. Levitov
"Dissipative quantum Hall effect in graphene near the Dirac point"
Physical Review Letters **98**(19), 196806 (2007).
229. A. K. Geim, and K. S. Novoselov
"The rise of graphene"
Nature Materials **6**(3), 183-191 (2007).
230. S. Pisana, M. Lazzeri, C. Casiraghi, K. S. Novoselov, A. K. Geim, A. C. Ferrari, and F. Mauri
"Breakdown of the adiabatic Born-Oppenheimer approximation in graphene"
Nature Materials **6**(3), 198-201 (2007).
231. K. S. Novoselov, Z. Jiang, Y. Zhang, S. V. Morozov, H. L. Stormer, U. Zeitler, J. C. Maan, G. S. Boebinger, P. Kim, and A. K. Geim
"Room-temperature quantum hall effect in graphene"
Science **315**(5817), 1379-1379 (2007).
232. J. C. Meyer, A. K. Geim, M. I. Katsnelson, K. S. Novoselov, T. J. Booth, and S. Roth
"The structure of suspended graphene sheets"
Nature **446**(7131), 60-63 (2007).
233. K. S. Novoselov, S. V. Morozov, T. M. G. Mohinddin, L. A. Ponomarenko, D. C. Elias, R. Yang, I. I. Barbolina, P. Blake, T. J. Booth, D. Jiang, J. Giesbers, E. W. Hill, and A. K. Geim
"Electronic properties of graphene"
Physica Status Solidi B-Basic Solid State Physics **244**(11), 4106-4111 (2007).
234. A. C. Ferrari, J. C. Meyer, V. Scardaci, C. Casiraghi, M. Lazzeri, F. Mauri, S. Piscanec, D. Jiang, K. S. Novoselov, S. Roth, and A. K. Geim
"Raman spectrum of graphene and graphene layers"
Physical Review Letters **97**(18), 187401 (2006).
235. E. W. Hill, A. K. Geim, K. Novoselov, F. Schedin, and P. Blake
"Graphene spin valve devices"
IEEE Transactions on Magnetism **42**(10), 2694-2696 (2006).
236. M. I. Katsnelson, K. S. Novoselov, and A. K. Geim
"Chiral tunnelling and the Klein paradox in graphene"
Nature Physics **2**(9), 620-625 (2006).
237. D. A. Christian, K. S. Novoselov, and A. K. Geim
"Barkhausen statistics from a single domain wall in thin films studied with ballistic Hall magnetometry"

- Physical Review B* **74**(6), 064403 (2006).
238. S. V. Morozov, K. S. Novoselov, M. I. Katsnelson, F. Schedin, L. A. Ponomarenko, D. Jiang, and A. K. Geim
"Strong suppression of weak localization in graphene"
Physical Review Letters **97**(1), 016801 (2006).
239. K. S. Novoselov, E. McCann, S. V. Morozov, V. I. Fal'ko, M. I. Katsnelson, U. Zeitler, D. Jiang, F. Schedin, and A. K. Geim
"Unconventional quantum Hall effect and Berry's phase of 2π in bilayer graphene"
Nature Physics **2**(3), 177-180 (2006).
240. Barbolina, I., K. S. Novoselov, S. V. Morozov, S. V. Dubonos, M. Missous, A. O. Volkov, D. A. Christian, I. V. Grigorieva, and A. K. Geim
"Submicron sensors of local electric field with single-electron resolution at room temperature"
Applied Physics Letters **88**(1)2006).
241. D. A. Christian, K. S. Novoselov, S. V. Dubonos, S. V. Morozov, E. W. Hill, I. V. Grigorieva, and A. K. Geim
"Ferromagnetic domain wall on nanometer scale"
Journal of Physics: Conference Series **17**(1), 101-107 (2005).
242. D. A. Christian, K. S. Novoselov, and A. K. Geim
"Barkhausen effect in a garnet film studied by ballistic Hall micromagnetometry"
Journal of Physics: Conference Series **15**(1), 125-130 (2005).
243. S. V. Morozov, K. S. Novoselov, F. Schedin, D. Jiang, A. A. Firsov, and A. K. Geim
"Two-dimensional electron and hole gases at the surface of graphite"
Physical Review B **72**(20), 201401 (2005).
244. K. S. Novoselov, A. K. Geim, S. V. Morozov, D. Jiang, M. I. Katsnelson, I. V. Grigorieva, S. V. Dubonos, and A. A. Firsov
"Two-dimensional gas of massless Dirac fermions in graphene"
Nature **438**(7065), 197-200 (2005).
245. K. S. Novoselov, D. Jiang, F. Schedin, T. J. Booth, V. V. Khotkevich, S. V. Morozov, and A. K. Geim
"Two-dimensional atomic crystals"
Proceedings of the National Academy of Sciences of the United States of America **102**(30), 10451-10453 (2005).
246. I. V. Shvets, A. N. Grigorenko, K. S. Novoselov, and D. J. Mapps
"Spin-polarized electron tunneling across magnetic dielectric"
Applied Physics Letters **86**(21), 212501 (2005).
247. K. S. Novoselov, S. V. Dubonos, S. V. Morozov, E. W. Hill, I. V. Grigorieva, and A. K. Geim
"Intrinsic pinning of a ferromagnetic domain wall in yttrium iron garnet films with strong uniaxial anisotropy"
Journal of Low Temperature Physics **139**(1-2), 65-72 (2005).

248. K. S. Novoselov, S. V. Dubonos, S. V. Morozov, D. Van Den Bergen, J. K. Maan, and A. K. Geim
"Coercivity of single pinning center measured by hall micromagnetometry"
International Journal of Nanoscience **3**(1-2), 87-94 (2004).
249. K. S. Novoselov, S. V. Morozov, S. V. Dubonos, M. Missous, and A. K. Geim
"Metallic and semiconductor Hall microprobes for wide temperature range applications"
International Journal of Nanoscience **3**(1-2), 123-130 (2004).
250. K. S. Novoselov, A. K. Geim, S. V. Morozov, D. Jiang, Y. Zhang, S. V. Dubonos, I. V. Grigorieva,
and A. A. Firsov
"Electric field effect in atomically thin carbon films"
Science **306**(5696), 666-669 (2004).
251. I. V. Grigorieva, A. K. Geim, S. V. Dubonos, K. S. Novoselov, D. Y. Vodolazov, F. M. Peeters, P.
H. Kes, and M. Hesselberth
"Long-range nonlocal flow of vortices in narrow superconducting channels"
Physical Review Letters **92**(23), 237001 (2004).
252. K. S. Novoselov, S. V. Dubonos, E. Hill, and A. K. Geim
**"Microscopic view on a single domain wall moving through ups and downs of an atomic
washboard potential"**
Physica E-Low-Dimensional Systems & Nanostructures **22**(1-3), 406-409 (2004).
253. S. V. Dubonos, K. S. Novoselov, A. K. Geim, and J. C. Maan
in *Book "Quenching of the Hall effect in localised high magnetic field region"*
edited by Z. I. Alferov, and L. Esaki
Spie-Int Soc Optical Engineering, Bellingham (2003), 465-468.
254. K. S. Novoselov, A. K. Geim, S. V. Dubonos, E. W. Hill, and I. V. Grigorieva
"Subatomic movements of a domain wall in the Peierls potential"
Nature **426**(6968), 812-816 (2003).
255. A. K. Geim, S. V. Dubonos, I. V. Grigorieva, K. S. Novoselov, A. A. Zhukov, and S. Y. Shapoval
"Microfabricated adhesive mimicking gecko foot-hair"
Nature Materials **2**(7), 461-463 (2003).
256. K. S. Novoselov, S. V. Morozov, S. V. Dubonos, M. Missous, A. O. Volkov, D. A. Christian, and
A. K. Geim
**"Submicron probes for Hall magnetometry over the extended temperature range from
helium to room temperature"**
Journal of Applied Physics **93**(12), 10053-10057 (2003).
257. K. S. Novoselov, A. K. Geim, D. van der Berg, S. V. Dubonos, and J. K. Maan
"Domain wall propagation on nanometer scale: Coercivity of a single pinning center"
IEEE Transactions on Magnetism **38**(5), 2583-2585 (2002).
258. Y. N. Khanin, E. E. Vdovin, Y. V. Dubrovskii, K. S. Novoselov, S. B. Carlsson, and P. Omling
**"Resonant tunneling via donor X states in the AlAs barrier and binding energies of donors
bound to X-XY and X-Z valleys"**
Physical Review B **66**(7), 073302 (2002).

259. S. V. Dubonos, A. K. Geim, K. S. Novoselov, and I. V. Grigorieva
"Spontaneous magnetization changes and nonlocal effects in mesoscopic ferromagnet-superconductor structures"
Physical Review B **65**(22), 220513 (2002).
260. K. S. Novoselov, A. K. Geim, S. V. Dubonos, Y. G. Cornelissens, F. M. Peeters, and J. C. Maan
"Scattering of ballistic electrons at a mesoscopic spot of strong magnetic field"
Physical Review B **65**(23), 233312 (2002).
261. K. S. Novoselov, A. K. Geim, S. V. Dubonos, Y. G. Cornelissens, F. M. Peeters, and J. C. Maan
"Quenching of the Hall effect in localised high magnetic field regions"
Physica E-Low-Dimensional Systems & Nanostructures **12**(1-4), 244-247 (2002).
262. Y. N. Khanin, E. E. Vdovin, L. Ponomarenko, and K. S. Novoselov
"Resonant tunnelling via states of the X-related donors located at different atomic layer in AlAs barrier"
Physica E-Low-Dimensional Systems & Nanostructures **12**(1-4), 849-852 (2002).
263. Y. N. Khanin, K. S. Novoselov, and E. E. Vdovin
"Tunneling via impurity states related to the X valley in a thin AlAs barrier"
Semiconductors **35**(2), 199-203 (2001).
264. K. S. Novoselov, Y. V. Dubrovskii, V. A. Sablikov, D. Y. Ivanov, E. E. Vdovin, Y. N. Khanin, V. A. Tulin, D. Esteve, and S. Beaumont
"Nonlinear electron transport in normally pinched-off quantum wire"
Europhysics Letters **52**(6), 660-666 (2000).
265. A. K. Geim, S. V. Dubonos, I. V. Grigorieva, K. S. Novoselov, F. M. Peeters, and V. A. Schweigert
"Non-quantized penetration of magnetic field in the vortex state of superconductors"
Nature **407**(6800), 55-57 (2000).
266. D. Y. Ivanov, K. S. Novoselov, Y. V. Dubrovskii, V. A. Sablikov, E. E. Vdovin, Y. N. Khanin, V. A. Tulin, D. Esteve, and S. Beaumont
"Nonlinear electron transport in quantum wires"
Physics of Low-Dimensional Structures **3-4**, 55-65 (2000).
267. S. V. Dubonos, A. K. Geim, K. S. Novoselov, J. G. S. Lok, J. C. Maan, and M. Henini
"Scattering of electrons at a magnetic protuberance of submicron size"
Physica E-Low-Dimensional Systems & Nanostructures **6**(1-4), 746-750 (2000).
268. Y. Khanin, E. Vdovin, K. Novoselov, Y. Dubrovskii, P. Omling, S. B. Carlsson, and J. K. Maan
"Gamma-X tunneling in GaAs/AlAs/GaAs heterostructure"
Physics of Low-Dimensional Structures **1-2**, 227-232 (1999).
269. Y. N. Khanin, E. E. Vdovin, Y. V. Dubrovskii, K. S. Novoselov, and T. G. Andersson
"Tunneling resonances in structures with a two-step barrier"
JETP Letters **67**(10), 863-868 (1998).
270. Y. Khanin, E. Vdovin, K. Novoselov, Y. Dubrovskii, P. Omling, and S. B. Carlsson
"Gamma-X tunnelling in GaAs/AlAs/GaAs heterostructure"

Japanese Journal of Applied Physics Part 1-Regular Papers Short Notes & Review Papers
37(6A), 3245-3247 (1998).