

PUBLICATION LIST (2014-2024): Dr Khrystyna Levchenko

Peer-reviewed publications according to [ODCID](#) / [Publons](#) / [Scopus](#)

- [1] “Dipolar skyrmions and antiskyrmions of arbitrary topological charge at room temperature”, S. Koraltan, M. Hassan, A. Ullrich, F. Bruckner, R. O. Serha, **K. Levchenko**, G. Varvaro, N. S. Kiselev, M. Heigl, A. Claas, D. Suess, M. Albrecht, *Nat. Phys.* (2024). DOI: [10.1038/s41567-023-02358-z](https://doi.org/10.1038/s41567-023-02358-z).
- [2] “Deeply nonlinear excitation of self-normalised exchange spin waves” Q. Wang, R. Verba, B. Heinz, M. Schneider, O. Wojewoda, K. Davidková, **K. Levchenko**, C. Dubs, N. J. Mauser, M. Urbánek, P. Pirro, A. V. Chumak, *Sci. Adv.* **9**, eadg4609 (2023). DOI: [10.1126/sciadv.adg460](https://doi.org/10.1126/sciadv.adg460).
- [3] “Impact of bismuth incorporation into (Ga,Mn)As dilute ferromagnetic semiconductor on its magnetic properties and magnetoresistance” T. Andrearczyk, **K. O. Levchenko**, J. Sadowski, K. Gas, A. Avdonin, J. Wróbel, T. Figielski, M. Sawicki, T. Wosiński, *Materials* **16**(2), 788 (2023). DOI: [10.3390/ma16020788](https://doi.org/10.3390/ma16020788).
- [4] “Parametric generation of spin waves in nanoscaled magnonic conduits” B. Heinz, M. Mohseni, A. Lentfert, R. Verba, M. Schneider, B. Lägel, **K. Levchenko**, T. Brächer, C. Dubs, A. V. Chumak, P. Pirro, *Phys. Rev. B.* **105**(14), 144424 (2022). DOI: [10.1103/PhysRevB.105.144424](https://doi.org/10.1103/PhysRevB.105.144424).
- [5] “Fast long-wavelength exchange spin waves in partially-compensated Ga:YIG” T. Böttcher, M. Ruhwedel, **K. O. Levchenko**, Q. Wang, H. L. Chumak, M. A. Popov, I. V. Zavislyak, C. Dubs, O. Surzhenko, B. Hillebrands, A. V. Chumak, P. Pirro, *Appl. Phys. Lett.* **120**, 102401 (2022). DOI: [10.1063/5.0082724](https://doi.org/10.1063/5.0082724).
- [6] “Engineered magnetization and exchange stiffness in direct-write Co-Fe nanoelements” S. A. Bunyaev, B. Budinska, R. Sachser, Q. Wang, **K. Levchenko**, S. Knauer, A. V. Bondarenko, M. Urbanek, K. Y. Guslienko, A. V. Chumak, M. Huth, G. N. Kakazei, O. V. Dobrovolskiy, *Appl. Phys. Lett.* **118**, 022408 (2021). DOI: [10.1063/5.0036361](https://doi.org/10.1063/5.0036361).
- [7] “Structural quality and magneto-electric properties of epitaxial layers of the (Ga,Mn)(Bi,As) dilute magnetic semiconductor” T. Andrearczyk, **K. Levchenko**, J. Sadowski, J. Domagala, A. Kaleta, P. Dłużewski, J. Wróbel, T. Figielski, T. Wosiński, *Materials* **13**, 5507 (2020). DOI: [10.3390/ma13235507](https://doi.org/10.3390/ma13235507).
- [8] “Evidence for the homogeneous ferromagnetic phase in (Ga,Mn)(Bi,As) epitaxial layers from muon spin relaxation spectroscopy” **K. Levchenko**, T. Prokscha, J. Sadowski, I. Radelytskyi, R. Jakiela, M. Trzyna, T. Andrearczyk, T. Figielski & T. Wosiński, *Sci. Rep.* **9**, 3394 (2019). DOI: [10.1038/s41598-019-40309-y](https://doi.org/10.1038/s41598-019-40309-y).
- [9] “Novel quaternary dilute magnetic semiconductor (Ga,Mn)(Bi,As): mag-netic and magneto-transport investigations”, **K. Levchenko**, T. Andrearczyk, J. Z. Domagala, J. Sadowski, L. Kowalczyk,

M. Szot, R. Kuna, T. Figielski, T. Wosiński, J. *Supercond. Nov. Magn.* **30**, 825 (2017). DOI: [10.1007/s10948-016-3752-3](https://doi.org/10.1007/s10948-016-3752-3).

- [10] “Effect of misfit strain in (Ga,Mn)(Bi,As) epitaxial layers on magnetic, magneto-transport properties”, **K. Levchenko**, T. Andrearczyk, J. Z. Domagała, J. Sadowski, L. Kowalczyk, M. Szot, T. Figielski, T. Wosiński, *Acta Phys. Pol. A* **129**, 90 (2016). DOI: [10.12693/APhysPolA.129.A-90](https://doi.org/10.12693/APhysPolA.129.A-90).
- [11] “Impact of Bismuth Incorporation into (Ga,Mn)As Thin Films on their Structural and Magnetic Properties”, **K. Levchenko**, T. Andrearczyk, J. Z. Domagała, T. Wosiński, T. Figielski, J. Sadowski, *Phys. Status Solidi C* **12** (2015). DOI: [10.1002/pssc.201400219](https://doi.org/10.1002/pssc.201400219).
- [12] “Magnetic and magneto-transport characterization of (Ga,Mn)(Bi,As) epitaxial layers”, **K. Levchenko**, T. Andrearczyk, J. Z. Domagała, T. Wosiński, T. Figielski, J. Sadowski, *Acta Phys. Pol. A* **126**(5), 1121-1124 (2014). DOI: [10.12693/APhysPolA.126.1121](https://doi.org/10.12693/APhysPolA.126.1121).