

Publications

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→ 2018–2023

Original Research Articles

- [1] Javanainen, M., P. Heftberger, J.J. Madsen, M.S. Miettinen, G. Pabst, and O.H. Samuli Ollila, Quantitative comparison against experiments reveals imperfections in force fields' descriptions of POPC–Cholesterol interactions, *J. Chem Theory Comput.*, xx: xxx (2023). DOI: 10.1021/acs.jctc.3c00648.
- [2] Jennings, J., D. Ašćerić, N. Malanovic, and G. Pabst, Structure–activity relationships of cationic lipidoids against *Escherichia coli*, *Antibiotics* 12: 1300 (2023). DOI: 10.3390/antibiotics12081300.
- [3] Jennings, J., D. Ašćerić, E.F. Semeraro, K. Lohner, N. Malanovic, and G. Pabst, Combinatorial screening of cationic lipidoids reveals how molecular conformation affects membrane-targeting antimicrobial activity, *ACS Appl. Mater. Interfaces* 15: 40178 – 40190 (2023), DOI: 10.1021/acsami.3c05481
- [4] Frewein, M.P.K., P. Piller, E.F. Semeraro, O. Czakkel, Y. Gerelli, L. Porcar and **G. Pabst***, Distributing aminophospholipids asymmetrically across leaflets causes anomalous membrane stiffening, *Biophys. J.* 122, 2445-2455 (2023). DOI: 10.1016/j.bpj.2023.04.025
- [5] Piller, P., E.F. Semeraro, G. N. Rechberger, S. Keller, and **G. Pabst***, Allosteric modulation of integral protein activity by differential stress in asymmetric membranes, *PNAS Nexus* 2: 1 – 7 (2023). DOI: 10.1093/pnasnexus/pgad126.
- [6] Jennings, J., and G. Pabst, Multiple routes to bicontinuous cubic liquid crystal phases discovered by high-throughput self-assembly screening of multi-tail lipidoids, *Small* 2206747 (2023). DOI: 10.1002/smll.202206747.
- [7] Angerer, N., P. Piller, E.F. Semeraro, S. Keller, and **G. Pabst***, Interaction of detergent with complex mimics of bacterial membranes, *Biophys Chem* 296: 107002 (2023). DOI: 10.1016/j.bpc.2023.107002.
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- [10] DiPasquale, M., M.H. Nguyen, G. Pabst, and D. Marquardt, Partial volumes of phosphatidylcholines and vitamin E: α -tocopherol prefers disordered membranes, *J Phys Chem B* 126: 6691-6699 (2022). DOI: 10.1021/acs.jpcb.2c04209
- [11] Semeraro, E.F., L. Marx, J. Mandl, I. Letofsky-Papst, C. Mayrhofer, M.P.K. Frewein, H.L. Scott, S. Prévost, H. Bergler, K. Lohner and **G. Pabst***, Lactoferricins impair the cytosolic membrane of *Escherichia coli* within a few seconds and accumulate inside the cell, *eLife* 11: e72850. (2022). DOI: 10.1101/2021.09.24.461681
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