

CURRICULUM VITAE



Brodskii Roman

Affiliation and official address:

Department of Theory of Condensed Matter,
Institute for Single Crystals NAS of Ukraine
61072 Ukraine, Kharkiv, Nauky Ave. 60.
E-mail: r.brodskii@gmail.com

Education (*degrees, dates, universities*)

2004 – M. S. V. N. Karazin Kharkiv National University, Ukraine (Physics)
2009 – Ph. D. Institute for Single Crystals NASU, Kharkiv, Ukraine (Theoretical Physics)

Career/Employment (*employers, positions and dates*)

2004-2007	Engineer	Institute for Single Crystals NASU, Kharkiv, Ukraine
2004-2007	PhD Student	Institute for Single Crystals NASU, Kharkiv, Ukraine
2007-2010	Senior engineer	Institute for Single Crystals NASU, Kharkiv, Ukraine
2010-2017	Junior Research Scientist	Institute for Single Crystals NASU, Kharkiv, Ukraine
2017-2020	Research Scientist	Institute for Single Crystals NASU, Kharkiv, Ukraine
2020-date	Senior Research Scientist	Institute for Single Crystals NASU, Kharkiv, Ukraine

Main field of activity and current research interest

Theory of percolation in layered samples, Physical properties of biological membranes, Theory of fragmentation

Publications

32 original articles

Scopus *h*-index: **3**

<https://www.scopus.com/authid/detail.uri?authorId=14053388100>

<https://orcid.org/0000-0002-6231-9899>

Selected recent publications:

- (1) R.Ye.Brodskii, T.V.Kulik, *Fragmentation of thin lenses*, Functional materials, 23 (2), pp. 279-292 (2016) <http://dx.doi.org/10.15407/fm23.02.279>
- (2) R.Ye.Brodskii, P.V.Konevskiy, R.I.Safronov, A.V.Voloshin, *Sapphire subdivision at different heat treating types*, Functional materials, 24 (3), pp. 376-382 (2017) <https://doi.org/10.15407/fm24.03.376>
- (3) R.Ye.Brodskii, *Properties of the volume phase in the layerwise growth. Case of forming of new layer under effect of previous*, Functional materials, 24 (1), pp. 91-105 (2017) <https://doi.org/10.15407/fm24.01.091>
- (4) O.V.Vashchenko, N.A.Kasian, **R.Ye.Brodskii**, L.V.Budianska, D.S.Sofronov, L.N.Lisetski, *Model lipid bilayers as sensor bionanomaterials for characterization of membranotropic action of water-soluble substances*, Funct. Mater., 25 (3), pp. 422-431 (2018) <https://doi.org/10.15407/fm25.03.422>
- (5) R.Ye.Brodskii, *Properties of the volume phase in the layerwise growth. Case of origin of new phase above phase boundary at previous layer*, Functional materials, 25 (4), pp. 780-787 (2018) <https://doi.org/10.15407/fm25.04.780>

- (6) N. A. Kasian, O. V. Vashchenko, L. V. Budianska, **R.Ye. Brodskii**, L. M. Lisetski. *Thermodynamics and kinetics of joint action of antiviral agent tilorone and DMSO on model lipid membranes*, Biochim. Biophys. Acta Biomembranes, pp. 123-129 (2018) DOI: 10.1016/j.bbamem.2018.08.007.
- (7) N. A. Kasian, O.V. Vashchenko, L.V. Budianska, **R.Ye. Brodskii**, L.N. Lisetski. *Cooperative domains in lipid membranes: size determination by calorimetry*, J. Therm. Anal. Calorim., Volume 136, Number 2, 795-801 (2019) doi: 10.1007/s10973-018-7695-8
- (8) O.V. Vashchenko, N.A. Kasian, L.V. Budianska, **R.Ye. Brodskii**, I.I. Bespalova, L.N. Lisetski. *Adsorption of ions on model phospholipid membranes*, J. Mol. Liq., Volume 275, 173-177 (2019) <https://doi.org/10.1016/j.molliq.2018.11.053>
- (9) R.Ye.Brodskii, *Formation of volume conductive inclusions under layerwise sample growth*, Funct. Mater., 27 (1), pp 159-169 (2019), <https://doi.org/10.15407/fm27.01.159>
- (10) N.A.Safronova, O.S.Kryzhanovska, M.V.Dobrotvorska, A.E.Balabanov, A.V.Tolmachev, R.P.Yavetskiy, S.V.Parkhomenko, **R.Ye.Brodskii**, V.N.Baumer, D.Yu.Kosyanov, O.O.Shichalin, E.K.Papynov, Jiang Li, *Influence of sintering temperature on structural and optical properties of Y2O3–MgO composite SPS ceramics*, Ceramics International, Volume 46, Issue 5, 1 April 2020, Pages 6537-6543 <https://doi.org/10.1016/j.ceramint.2019.11.137>
- (11) R.Ye.Brodskii, *Formation of "windows" of transparency in a layered sample with an inhomogeneous distribution of inclusions in the layers; special case*, Funct. Mater., 28 (1): 138-150 (2021) <https://doi.org/10.15407/fm28.01.138>