

CURRICULUM VITAE

Name: Professor Edward Bormashenko

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Languages Hebrew, English, Russian, Ukrainian

Date of birth 05.09.1962

Date of immigration (aliya) 02.09. 1997

EDUCATION: **1990** PhD. Polymer Science

USSR Academy of Science, Moscow Institute of Plastics

Title of Thesis: Design of the Technology of Plastics Recycling Under Conditions of Low Pressure, Supervisor Professor M. Friedman.

1984 MSc. Solid State Physics, Kharkov University, USSR

Title of Thesis: Interaction of heavy high energy ions with thin gold films.

AREAS OF EXPERTISE

30 years of experience in Soft Matter Physics, Solid-State Physics, Surface Physics and Polymer Science. Investigations of acoustic waves in crystals. Study of non-isothermal flow of polymer blends. Investigation of diffusion in polymers. Study of phase transformations in chalcogenide glasses. Optics of polymer materials. Investigation of the interaction of laser radiation and cold radiofrequency plasma with polymer films. Study of luminescence in Lanthanide-doped polymer films. Study of the polymer piezoelectric materials. Development of composite materials. Development of conducting polymers. Development of EMI shielding materials. Study of self-assembly processes in thin polymer films. Study of the wetting phenomena. Study of the superhydrophobicity; development of organic and non-organic superhydrophobic surfaces. Study of the interaction of cold radiofrequency plasma with biological tissues. Founded the Laboratory of Interface Science.

ACADEMIC AND PROFESSIONAL EXPERIENCE

2012-present	Professor, Ariel University.
2006-2012	Associate Professor, Ariel University Center of Samaria, Head of the Laboratory of Interface Science
1999– present	Head of the Laboratory of Polymer and Composite Materials. Ariel University Center of Samaria.
1998 – 2006	Lecturer, Senior Lecturer. College of Judea and Samaria.
1990-1997	Chief Engineer in the Research Firm Technoplast, Kharkov
1984-1990	Researcher, Head of the Research Team, Institute of Polymers, Kharkov.

SCIENTIFIC SUPERVISION: 18 BS students, 6 MSc students.

SUPERVISION OF PHD STUDENTS: Supervision of 9 PhD Theses:

1. Phenomenon of superhydrophobicity: experiments, theory, applications (T. Stein).
2. Self-assembly in evaporated polymer solutions (S. Balter).
3. Study of liquid marbles (R. Balter).
4. Study of wetting properties of metallic superhydrophobic surfaces (A. Musin).
5. Study of interaction of cold radiofrequency plasma with polymers (G. Haniel).
6. Cold radiofrequency plasma treatment of seeds, its influence on wetting properties and germination of seeds (Ye. Shapira).

EDITING: Member of the Editorial Board of the Advances in Colloid and Interface Science, Editor of Scientific Reports, Editor of Materials, Guest Editor of the Journal of Adhesion Science & Technology; Member of the Advising Board of the Journal of Adhesion Science & Technology.

PROFESSIONAL SOCIETIES: Optical Society of America (OSA International)

AWARDS:

The paper “Resonance Absorption of Coherent Infrared Radiation by Thin Polypropylene Films and Production of Highly Developed Surface Relieves”, presented at the Annual Meeting of American Chemical Society (ACS) was awarded by the Award of ACS (New Orleans, USA, 2003).

2009 Certificate of the 20%-top Reviewer from the Langmuir Journal.

2009 Special Award of the Jewish History Journal.

2010 Special Award of the Jewish History Journal.

2010 Excellent Lecturer Award from the Ariel University Center of Samaria.

2011 Excellent Lecturer Award from the Ariel University Center of Samaria.

2011 Certificate of the top Reviewer from the American Chemical Society.

2012 Excellent Lecturer Award from the Ariel University Center of Samaria.

2014 Certificate of the Outstanding Reviewer from the Chemical Physics Letters Journal.

2014 Certificate of the Outstanding Reviewer from the Applied Surface Science Journal.

2015 Certificate of the Outstanding Reviewer from Colloids and Surfaces A Journal.

2016 Special Award of the Jewish History Journal.

2017 Special Award of the Jewish History Journal.

2017 Certificates of the Outstanding Reviewer from PUBLONs for reviewing in physics, chemistry, materials science and chemical engineering.

2018 Certificates of the Outstanding Reviewer from PUBLONs for reviewing in physics, chemistry, and materials science.

2019 Certificates of the Outstanding Reviewer from PUBLONs for reviewing in physics, chemistry, and materials science and cross-field.

2021 Excellent Researcher Award from the Ariel University

2022 Special Award of the Jewish History Journal.

PEDAGOGICAL ACTIVITY:

Developed and taught new courses: Advanced Materials, Polymers, Ceramics, Interface Science, Materials in Chemical Industry, Solid Waste Processing, Thermodynamics, Analytic Mechanics, Mechanics, Electricity and Magnetism, Modern Physics, Thermal Physics in the Ariel University.

TEXTBOOKS:

Textbook "Kinematics", The College of Judea and Samaria, 2009; "Conductors in the electrical fields", The College of Judea and Samaria, 2001; "Electrical stream", The College of Judea and Samaria, 2000

PUBLICATIONS, CITATION, WORLD RANKING AND PATENTS:

10 top world-rated scientists in the field of wetting, according to *Google Scholar*.

Over 300 peer-reviewed scientific articles, (*h*-factor according to the *Google Scholar*: $h=55$; 11500 citations); 3 books; 5 chapters in the books, 18 registered patents, over 100 presentations at international scientific conferences.

RESEARCH GRANTS AND APPLIED RESEARCH:

1999-2002	Infrared Fiberoptic Spectroscopy of Biological Liquids	Israeli Ministry of Science	Budget 10.000 NIS
2000-2002	New Thermoplastic Light-Transforming Films.	Israeli Ministry of Industry and Trade	15.000 NIS
1999-2001	New polymer/chalcogenide glass composite.	Israeli Ministry of Industry and Trade	
2003-2004	Study of IR spectra of organic compounds. Development of polymer optical fibers.	Solubest Ltd (Israel)	40.000NIS
2005-2006	Development of the EMI Shielding polymer composite	First Quality Optics (USA)	
	Development of superhydrophobic surfaces.	Israeli Ministry of Industry and Trade	400.000 NIS
2008-2009	Manufacturing and study of the properties of liquid marbles obtained with crude oil	Israeli Ministry of Industry and Trade	
2011	and liquid petroleum products.	American Chemical Society	
2012	Development of the effective powder for fire extinguishing.	Petroleum Research Fund (USA)	65.000 \$
	Improvement of germination of hard seeds by cold plasma treatment (KAMIN Program)	Joint Russian-Israel Research Fund Israeli Ministry of Industry and Trade	
2014-2016			610.000 NIS
2016	Engineering floating liquid marbles for three-dimensional cell cultures	Australian Research Council	140.000 Australian Dollars

2017	Plasma treatment as the method for the formation of stable nano-suspensions of milk protein concentrate isolate and soy protein isolate	NOFAR Program, Israeli Ministry of Industry and Trade	100.000 \$
2019	Theoretically based methods for generating and monitoring levitating droplet clusters and biochemical experiments in microreactor droplets.	Russian Science Foundation 19-19-00076)	300.000\$
2020-2023	Development of anti-microbial catheters	Israel Ministry of Science	100.000\$
2021	Development of the novel fire extinguishing powders.	Russian/Israel Foundation	10.000\$
2021	Development of the pilot technology of plasma-treatment of polymer waste.	Unilever Global Company	10.000\$
2021	Development of the technology of manufacturing of stable surfactants-free water suspensions.	L'Oreal, Paris, France	10.000\$

LIST OF MAIN PUBLICATIONS

1. Refereed articles and letters

(H-factor according to the Google Scholar: H=55)

1. Nazik V.D., Bormashenko Ed., About mechanisms of destruction of ultra-thin island films by highly charged high-energy particles. *Questions of Atomic Science and Technique, Series: Physics of Radiation Damages and Radiation Materials Technology*, 3 (41) (1987) 31-36.
2. Levin V.S., Kalitina A.P., Kostenko V.G., Bormashenko Ed., Plastics waste processing by means of the rotational molding, *Plastics*, 5 (1987) 46.
3. Levin V.S., Bormashenko Ed., Investigations of possibility of filling of polymer materials under rotational molding, *Plastics*, 5 (1987) 34.
4. Levin V.S., Friedman M.L., Zagoskin A.M., Panitch S.Ye., Zulin E.M., Bormashenko Ed., Low pressure molding of plastics waste, *Plastics*, 2 (1989) 62.
5. Friedman M.L., Petrosyan A.Z., Levin V.S., Bormashenko Ed., Fundamentals of low pressure molding of polymer pastes (plasticols) and thermoplastic materials, *Advances in Polymer Science*, 2 (1989) 62.
6. Bormashenko Ed., Zagoskin A.M., Mechanism of migration of fillers particles in polymer blends, *Plastics*, 2 (1995) 28.
7. Bormashenko Ed., Mechanism of migration of filler particles in the polymer melts, *International Polymer Science and Technology*, 23 (1) (1996) 80.
8. Bormashenko Ed., Sutovsky S., Pogreb R., New oriented polymer/thermoplastic glass composites for IR optics, *Advanced Engineering Materials*, 2 (10) (2000) 657-658.
9. Bormashenko E., Pogreb R., Sutovski S., Raichlin Y., Vasserman I and Katzir A., The Investigation of the process of dip-coating of silver halide fibers with polymer materials, *Scientific Israel*, 2 (2000) 84-88.

10. Bormashenko E., Pogreb R., Sheshnev Av., Shulzinger Eu., Bormashenko Ye., and Katzir A., Infrared laser radiation induced changes in the IR absorption spectra of thin polymer films, *Journal of Optics: Pure and Applied Optics*, 2 (5) (2000) L38-40.
11. Bormashenko E., Pogreb R., Sheshnev Av., Shulzinger Eu., Bormashenko Ye., and Katzir A., Thermal degradation of thermoplastic and thermosetting polymers induced by laser radiation and its study by FTIR spectroscopy, *Polymer Degradation and Stability*, 72 (2001) 125-131.
12. Bormashenko E., Pogreb R., Pogreb Z., Sutovsky S., Development of new near IR filters based on the "sandwich" polymer-chalcogenide glass composites, *Optical Engineering*, 40 (5) (2001) 661-662.
13. Bormashenko E., Pogreb R., Sheshnev Av., Shulzinger Eu., Bormashenko Ye., and Katzir A., IR laser radiation induced changes in the infrared absorption spectra of thermoplastic and thermosetting polymers, *Journal of Optics A: Pure and Applied Optics*, 3 (4) (2001) 229-235.
14. Bormashenko E., Pogreb R., Sheshnev Av., Sutovski S., Bormashenko Ye. Pogreb Z., and Katzir A., Development of the technology of contacting ZnSe infrared optical windows using polyethylene films, *Optical Engineering*, 40 (9) (2001) 1754-1755.
15. Bormashenko E., Pogreb R., Sutovski S., Levin M., Optical properties and infrared optics applications of composite films based on polyethylene and low-melting-point chalcogenide glass, *Optical Engineering*, 41 (2) (2002) 295-302.
16. Bormashenko E., Pogreb R., Sutovski S., Lusternik V., Voronel A., Mechanical and thermodynamic properties of infrared low melting point chalcogenide glass, *Infrared Physics and Technology*, 43 (6), 2002, 397-399.
17. Bormashenko E., Sheshnev Av., Pogreb R., Reichlin Y, Shulzinger Eu., Bormashenko Ye., and Katzir A., Study of water diffusion in polyacrylonitrile using IR Fiber optic evanescent wave spectroscopy, *Polymers for Advanced Technologies*, 13 (2002) 1039-1045.
18. Bormashenko E., Pogreb R., Sutovski S., Development of a novel composite based on thermoplastic polymers and low-melting-point chalcogenide glasses, *Journal of Thermoplastic Composite Materials*, 15 (6) (2002) 511-523.
19. Cahan R., Goldstein V., Finkelstein B., Bormashenko Ed., Novel active packaging film preventing migration of antimicrobial component, *Packaging and Bottling International*, 3 (2003) 46-48.
20. Bormashenko E., Pogreb R., Sheshnev Av., Sutovski S., Shulzinger A., A. Gladkikh, Preparation of Se-doped polyaniline emeraldine base films, *Synthetic Metals*, 139 (2003) 321-325.
21. Bormashenko E., Pogreb R., Sutovski S., Sheshnev A., Nachum L., Kerbel R., Resonance absorption of coherent infrared radiation by thin polypropylene Films, *Applied Surface Science*, 220 (2003) 125-135.
22. Bormashenko E., Pogreb R., Sheshnev Av., Sutovski S., Shulzinger A., Westfrid A., Bormashenko Ye., Levin M., Development of novel binary and ternary composite based on polyethylene, low melting point metal alloy and carbon black, *Journal of Thermoplastic Composite Materials*, 17 (03) (2004) 245-258.
23. Bormashenko E., Pogreb R., Sutovski S., Shulzinger A., Izaksson G., Katzir A, Infrared optics applications of the thin polyaniline emeraldine base films, *Synthetic Metals*, 140 (2004) 49-52.
24. Bormashenko E., Pogreb R., Finkelshtein B., Shmukler Yu., Musina Al., Popov O., Stanevsky O., Yitzchaik Sh., Gladkikh Al., Shulzinger Al., Streltsov Vl., Davidov D., Low-density polyethylene films doped with Eu(III) complex, their properties and applications, *Polymers for Advanced Technologies*, 15 (2004) 414-418.
25. Bormashenko E., Pogreb R., Socol Ye., Sutonski S., Streltsov V., Novel Scheme for electrically controlled resonance IR waveguide, *Optica Applicata*, 34 (2) (2004) 303-307.
26. Bormashenko Ye., Pogreb R., Stanevsky O, Bormashenko Ed., Vibrational spectrum of PVDF and its interpretation, *Polymer Testing*, 23 (2004) 791-796.
27. Bormashenko E., Pogreb R., Socol Ye., Sutovski S., Hakham M.I., Streltsov V., Sheshnev A., Bormashenko Ye., Polyvinylidene fluoride – piezoelectric polymer for integrated optics applications, *Optical Materials*, 27 (2004) 429-434.

28. Bormashenko E., Pogreb R., Stanevsky O., Biton Y., Bormashenko Ye., Self-Organization in thin polycarbonate films and its optical and electro-optical applications, *Journal of Material Science*, 39 (2004) 6639-6641.
29. Bormashenko E., Pogreb R., Stanevsky O., Bormashenko Ye., Stein T., Gaisin V.-Z., Cohen R., Gengelman O., Mesoscopic Patterning in thin polymer films formed under the fast dip-coating process, *Macromolecular Materials and Engineering*, 290 (2005) 114-121.
30. Bormashenko E., Pogreb R., Stanevsky O., Bormashenko Ye., Socol Y., Gendelman O., Self-assembled honeycomb polycarbonate films deposited on polymer piezoelectric substrates and their applications, *Polymers for Advanced Technologies*, 16 (2005) 299-304.
31. Bormashenko E., Pogreb R., Stanevsky O., Bormashenko Ye., Stein T., Cohen R., Nunberg M., Gaisin V.-Z., Gorelik M., Gengelman O. Mesoscopic and submicroscopic patterning in thin polymer films: impact of the solvent, *Materials Letters*, 59 (2005) 2461-2464.
32. Bormashenko E., Sutovski S., Pogreb R., Bormashenko Ye., Musina A., Nir A., Luban L. Novel method of low-melting metal micropowders fabrication, *Journal of Material Processing Technology*, 168 (2005) 367-371.
33. Bormashenko E., Pogreb R., Stanevsky O., Bormashenko Ye., Stein T., Gendelman O. Mesoscopic patterning in evaporated polymer solutions: new experimental data and physical mechanisms, *Langmuir*, 21 (21) (2005) 9604-9609.
34. Bormashenko E., Pogreb R. Stanevsky O., Bormashenko Ye., Gendelman O. Formation of honeycomb patterns in evaporated polymer solutions: Influence of the molecular weight, *Materials Letters*, 59 (2005) 3553-3557.
35. Bormashenko E., Bormashenko Ye., Stanevsky O., Pogreb R., Evolution of chemical gardens in aqueous solutions of polymers, *Chemical Physics Letters*, 417 (2006) 341-344.
36. Pogreb R., Popov O., Lirtsman V.I., Pyshkin O., Kazachkov A., Musina A.I., G. Whyman, Finkelshtein B., Shmukler Yu., Davidov D., Gladkikh A.I., Bormashenko E., Luminescent properties of PP and LDPE films and rods doped with Eu(III)-La(III) complex, *Polymers for Advanced Technologies*, 17 (2006) 20-25.
37. Bormashenko E., Pogreb R., Stanevsky O., Bormashenko Ye., Stein T., Cohen R., Reis Sh., Gendelman O. Mechanisms of mesoscopic patterning in evaporated polymer films deposited on tilted and vertical substrates, *Journal of Materials Science*, 41 (2) (2006), 455-461.
38. Pogreb R., Whyman G., Musin A., Stanevsky O., Bormashenko Ye., Sternklar Sh., Bormashenko E., The Effect of controlled stretch on luminescence of Eu(III)(NO₃)₃(o-Phen)₂ complex doped into PVDF film, *Materials Letters*, 60 (2006) 1911-1914.
39. Bormashenko E., Pogreb R., Musin A., Stanevsky O., Bormashenko Ye., Whyman G., Gendelman O., Barkay Z., Self-assembly in evaporated polymer solutions: Influence of the solution concentration, *Journal of Colloid and Interface Science*, 297 (2006) 534-540.
40. Bormashenko E., Pogreb R., Musin A., Stanevsky O., Bormashenko Ye., Whyman G., Barkay Z., Patterning in rapidly evaporated polymer solutions: formation of annular structures under evaporation of the poor solvent, *Journal of Colloid and Interface Science*, 300 (2006) 293-297.
41. Bormashenko E., Bormashenko Ye., Whyman G. Pogreb R., Stanevsky O., Micrometrically scaled textured metallic hydrophobic interfaces validate the Cassie-Baxter wetting hypothesis, *Journal of Colloid and Interface Science*, 302 (2006) 308-311.
42. Bormashenko E., Bormashenko Ye., Stanevsky O., Pogreb R., Whyman G., Stein T., Barkay Z., Template-assisted growth of chemical gardens: formation of dendrite structures, *Colloids and Surfaces A*, 289 (2006), 245-249.
43. Bormashenko E., Bormashenko Ye., Stanevsky O., Pogreb R., Whyman G., Stein T., Itzhaq M.H., Barkay Z., Template-assisted crystallization and colloidal self-assembly with use of the polymer micrometrically-scaled honeycomb template, *Colloids and Surfaces A*, 290 (2006) 273-279.
44. Bormashenko E., Stein T., Whyman G., Bormashenko Ye., Pogreb R. Wetting properties of the multiscaled nanostructured polymer and metallic superhydrophobic surfaces, *Langmuir*, 22 (2006) 9982-9985.

45. Bormashenko E., Whyman G., Pogreb R., Stanevsky O., Hakham-Itzhaq M., Gendelman O. Self-assembly in evaporated polymer solutions: patterning on two scales, *Israel Journal of Chemistry*, 47 (2007) 319-328.
46. Bormashenko E., Pogreb R. On the mechanisms of colloidal particle and vapor bubble aggregation in liquid flows, *Israel Journal of Chemistry*, 47 (2007) 381-384.
47. Bormashenko E., Bormashenko Ye., Pogreb R., Stanevsky O., Whyman G., Droplet behavior on flat and textured surfaces: co-occurrence of Deegan outward flow with Marangoni solute instability, *Journal of Colloid and Interface Science*, 306 (2007) 128-132.
48. Bormashenko E., Musin A., Bormashenko Ye., Whyman G., Pogreb R., Gendelman O., Formation of films on water droplets floating on a polymer solution surface, *Macromolecular Chemistry and Physics*, 208 (2007) 702-709.
49. Bormashenko E., Bormashenko Ye., Stein T., Whyman G., Pogreb R., Environmental scanning electron microscopy study of the fine structure of the triple line and Cassie-Wenzel wetting transition for sessile drops deposited on rough polymer substrates, *Langmuir*, 23 (2007) 4378-4382.
50. Bormashenko E., Bormashenko Ye., Stein T., Whyman G., Bormashenko E., Why do pigeon feathers repel water? Hydrophobicity of penna, Cassie-Baxter wetting hypothesis and Cassie-Wenzel capillarity-induced wetting transition, *Journal of Colloid and Interface Science*, 311 (2007) 212-216.
51. Bormashenko E., Pogreb R., Whyman G., Erlich M., Vibration-induced Cassie-Wenzel wetting transition on rough surfaces, *Applied Physics Letters*, 90 (2007) 201917-201917-2.
52. Bormashenko E., Pogreb R., Whyman G., Erlich M., Cassie-Wenzel wetting transition in vibrating drops deposited on rough surfaces: Is dynamic Cassie-Wenzel wetting transition a 2D or 1D affair? *Langmuir*, 23 (2007) 6501-6503.
53. Bormashenko E., Musin A., Pogreb R., Bormashenko Ye., Gendelman O., Self-Assembled patterns obtained with evaporated polymer solutions and pre-stretched polymer substrates, *Colloids and Surfaces A*, 303 (2007) 253-256.
54. Bormashenko E., Entropy of relativistic mono-atomic gas and temperature relativistic transformation in thermodynamics, *Entropy*, 9 (3) (2007) 113-117.
55. Bormashenko E., Shkorbatov A., Gendelman O., The Carnot engine based on the small thermodynamic system: Its efficiency and the ergodic hypothesis, *American Journal of Physics*, 75 (10) (2007) 911-915.
56. Bormashenko E., Pogreb R., Whyman G., Erlich M., Resonance Cassie-Wenzel wetting transition for horizontally vibrated drops deposited on a rough surface, *Langmuir*, 23, (2007) 12217-12221.
57. Bormashenko E., Aurbach, D., Whyman, G., Stein T., Ye. Bormashenko Ye., Pogreb R., On the role of the Plateau borders in the pattern formation occurring in thin evaporated polymer layers, *Colloids and Surfaces A*, 312 (2008) 245-248.
58. Whyman G, Bormashenko E., Stein T., The rigorous derivation of Young, Cassie-Baxter and Wenzel equations and the analysis of the contact angle hysteresis phenomenon, *Chemical Physics Letters*, 450 (2008) 355-359.
59. Bormashenko E. Correct values of Rayleigh and Marangoni numbers for liquid layers deposited on thin substrates, *Ind. Eng. Chem. Res.* 47(5) (2008) 1726-1728.
60. Bormashenko E., Malkin A., Musin A., Bormashenko Ye., Whyman G., Litvak N., Barkay Z., Machavariani V. Mesoscopic patterning in evaporated polymer solutions: poly(ethylene glycol) and room-temperature-vulcanized polyorganosilanes/-siloxanes promote formation of honeycomb structures, *Macromolecular Chemistry and Physics*, 209 (6) (2008) 567-576.
61. Bormashenko E., Bormashenko Ye., Whyman G., Pogreb R., Musin A., Jager R., Barkay Z., Contact angle hysteresis on polymer substrates established with various experimental techniques, its interpretation, and quantitative characterization, *Langmuir*, 24 (2008) 4020-4025.
62. Bormashenko E., On the role of contact line tension and 2D defects in the formation of the water depletion layer on hydrophobic surfaces, *Chemical Physics Letters*, 456 (2008) 186-188.

63. Bormashenko E., Stein T., Whyman G., Pogreb R., Sutovsky D., Danoch Y., Shoham Y., Sorokov B. , Aurbach D. Superhydrophobic metallic surfaces and their wetting properties, *Journal of Adhesion Science and Technology*, 22 (2008) 379–385.
64. Bormashenko E., Why does the Cassie–Baxter equation apply? *Colloids and Surfaces A: Physicochem. Eng. Aspects*, 324 (2008) 47–50.
65. Bormashenko E., Pogreb R., Whyman G., Bormashenko Ye., Jager R., Stein T., Schechter A., Aurbach D. The reversible giant change in the contact angle on the polysulfone and polyethersulfone films exposed to UV irradiation, *Langmuir*, 24 (12) (2008) 5977–5980.
66. Bormashenko E., Pogreb R., Stein T., Whyman G., Erlich M., Musin A., Machavariani V., Aurbach D. Characterization of rough surfaces with vibrated drops, *Phys. Chem. Chem. Phys.*, 10 (2008) 4056–4061.
67. Bormashenko E., Whyman G. Variational approach to wetting problems: Calculation of a shape of sessile liquid drop deposited on a solid substrate in external field, *Chemical Physics Letters*, 463 (2008) 103–105.
68. Bormashenko, E.; Pogreb, R.; Bormashenko, Y.; Musin, A.; Stein, T. New investigations on ferrofluidics: ferrofluidic marbles and magnetic-field-driven drops on superhydrophobic surfaces, *Langmuir*, 24 (2008) 12119–12122.
69. Bormashenko E., Schechter A., Stanevsky O. Stein T., Balter S., Musin A., Bormashenko Ye., Pogreb R., Barkay Z., Aurbach D. Free-standing, thermostable, micrometer-scale honeycomb polymer films and their properties, *Macromolecular Materials & Engineering*, 293 (2008) 872–877.
70. Whyman G., Ed. Bormashenko Ed. Oblate spheroid model for calculation of the shape and contact angles of heavy droplets, *Journal of Colloid and Interface Science*, 331 (2009) 174–177.
71. Bormashenko E., Bormashenko Ye., Musin A., Barkay Z. On the Mechanism of floating and Sliding of Liquid Marbles, *ChemPhysChem*, 10 (2009) 654 – 656.
72. Bormashenko E., Pogreb R., Whyman G., Musin A., Bormashenko Ye., Barkay Z., Shape, Vibrations, and effective surface tension of water marbles, *Langmuir*, 25 (2009) 1893–1896.
73. Bormashenko E., Bormashenko Ye. , Musin Al. Water rolling and floating upon water: Marbles supported by a water/marble interface, *Journal of Colloid and Interface Science*, 333 (2009) 419–421.
74. Bormashenko E., Musin Al. Revealing of water surface pollution with liquid marbles, *Applied Surface Science*, 255 (2009) 6429–6431.
75. Bormashenko E., Stein T., Pogreb R., Aurbach. D. “Petal Effect” on surfaces based on lycopodium: high-stick Surfaces demonstrating high apparent contact angles, *J. Phys Chem C*, 113 (14) (2009) 5568–5572.
76. Pogreb R., Whyman G., Barayev R., Bormashenko E., Aurbach. D. A reliable method of manufacturing metallic hierarchical superhydrophobic surfaces, *Applied Physics Letters*, 94 (2009) 221902.
77. Bormashenko E., Goldshtein V., Barayev R., Stein T., Whyman G., Pogreb R., Barkay Z., Aurbach D. Robust method of manufacturing rubber-waste based water repellent surfaces, *Polymers for Advanced Technologies*, 20 (2009) 650–653.
78. Bormashenko E., Young, Boruvka–Neumann, Wenzel and Cassie–Baxter equations as the transversality conditions for the variational problem of wetting, *Colloids and Surfaces A*, 345 (2009) 163–165.
79. Bormashenko E. A Variational Approach to Wetting of Composite Surfaces: Is Wetting of Composite Surfaces a One-Dimensional or Two-Dimensional Phenomenon? *Langmuir*, 25 (2009) 10451–10454.
80. Bormashenko E. Wetting of Flat and Rough Curved Surfaces, *Journal of Physical Chemistry C*, 113 (2009) 17275–17277.
81. Bormashenko E., Pogreb R., Whyman G., Musin A. Surface Tension of Liquid Marbles, *Colloids and Surfaces A*, 351 (2009) 78–82.

82. Bormashenko E., Pogreb R., Whyman G., Comment on "Water Wetting Transition Parameters of Perfluorinated Substrates with Periodically Distributed Flat-Top Microscale Obstacles", *Langmuir*, 25 (2009) 13694–13695.
83. Bormashenko E., Pogreb R., Stein T., Whyman G., Hakham-Itzhaq M. Electrostatically Driven Droplets Deposited on Superhydrophobic Surfaces, *Applied Physics Letters*, 95 (2009) 264102.
84. Bormashenko E., Sheshnev A., Measurable Values, Numbers and Fundamental Physical Constants, *Thermal Science*, 13 (4) (2009) 253–258.
85. Bormashenko E., Balter S., Pogreb R., Bormashenko Ye., Gendelman O., Aurbach D. On the mechanism of patterning in rapidly evaporated polymer solutions: Is temperature-gradient-driven Marangoni instability responsible for the large-scale patterning? *Journal of Colloid and Interface Science*, 343 (2010) 602–607.
86. Bormashenko E., Balter S., Bormashenko Ye., Gendelman O., On the nature of the friction between nonstick droplets and solid substrates, *Langmuir*, 26(15) (2010) 12479–12482.
87. Bormashenko E., Pogreb R., Musin Al., Balter R., Whyman G., Aurbach D., Interfacial and conductive properties of liquid marbles coated with carbon black, *Powder Technology*, 203 (2010) 529–533.
88. Bormashenko E., Balter R., Aurbach D. Micropump based on liquid marbles, *Applied Physics Letters*, 97 (2010) 091908.
89. Bormashenko E., Wetting transitions on biomimetic surfaces, *Philosophical Transactions of the Royal Society A*, 368 (1929) (2010) 4695–4711.
90. Bormashenko E., Gendelman O., On the applicability of the equipartition theorem, *Thermal Science*, 14 (3) (2010) 855–858.
91. Bormashenko, E. Why are the values of the surface tension of most organic liquids similar? *Am. J. Phys.*, 78 (12) (2010) 1309–1311.
92. Bormashenko E., Musin A., Pogreb R., Luz E., Zinigrad M. Thickness of gravity-flattened water layers (“puddles”) deposited on the polymer substrates and the hysteresis of the contact angle, *Colloids and Surfaces A*: 372 (2010) 135–138.
93. Bormashenko E., Balter S., Pogreb R. Aurbach, D. Single-step technique allowing formation of microscaled thermally stable polymer honeycomb reliefs demonstrating reversible wettability, *Polymers for Advanced Technologies*, 22 (2011) 94–98.
94. Bormashenko E., Bormashenko Ye., Pogreb, R., Gendelman O., Janus droplets: liquid marbles coated with dielectric/semiconductor particles, *Langmuir*, 27 (2011) 7–10.
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