

# Annette L Bunge

## List of Publications by Year in descending order

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108  
papers

3,484  
citations

172207

29  
h-index

149479

56  
g-index

114  
all docs

114  
docs citations

114  
times ranked

2608  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dielectric Properties of Materials Showing Constant-Phase-Element (CPE) Impedance Response. <i>Journal of the Electrochemical Society</i> , 2013, 160, C215-C225.	1.3	370
2	Mathematical models of skin permeability: An overview. <i>International Journal of Pharmaceutics</i> , 2011, 418, 115-129.	2.6	294
3	A new method for estimating dermal absorption from chemical exposure. 1. General approach. <i>Pharmaceutical Research</i> , 1993, 10, 497-506.	1.7	197
4	Characterization of the permeability barrier of human skin in vivo. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1997, 94, 1562-1567.	3.3	188
5	A new method for estimating dermal absorption from chemical exposure: 2. Effect of molecular weight and octanol-water partitioning. <i>Pharmaceutical Research</i> , 1995, 12, 88-95.	1.7	105
6	Oral Bioavailability, Bioaccessibility, and Dermal Absorption of PAHs from Soil—State of the Science. <i>Environmental Science &amp; Technology</i> , 2016, 50, 2151-2164.	4.6	100
7	Pharmacokinetic models of dermal absorption. <i>Journal of Pharmaceutical Sciences</i> , 2001, 90, 1699-1719.	1.6	89
8	Dermally adhered soil: 1. Amount and particle size distribution. <i>Integrated Environmental Assessment and Management</i> , 2006, 2, 375-384.	1.6	84
9	Improved Bioequivalence Assessment of Topical Dermatological Drug Products Using Dermatopharmacokinetics. <i>Pharmaceutical Research</i> , 2009, 26, 316-328.	1.7	82
10	Determining dermal absorption parameters in vivo from tape strip data. <i>Pharmaceutical Research</i> , 2002, 19, 292-298.	1.7	77
11	Chemical uptake into human stratum corneum in vivo from volatile and non-volatile solvents. <i>Pharmaceutical Research</i> , 1999, 16, 1288-1293.	1.7	73
12	Nanoparticles Do Not Penetrate Human Skin—A Theoretical Perspective. <i>Pharmaceutical Research</i> , 2013, 30, 1943-1946.	1.7	69
13	Analysis of finite dose dermal absorption data: Implications for dermal exposure assessment. <i>Journal of Exposure Science and Environmental Epidemiology</i> , 2014, 24, 65-73.	1.8	67
14	Migration of Alkaline Pulses in Reservoir Sands. <i>Society of Petroleum Engineers Journal</i> , 1982, 22, 998-1012.	0.9	62
15	A diffusion model for reversible consumption in emulsion liquid membranes. <i>Journal of Membrane Science</i> , 1984, 21, 55-71.	4.1	61
16	Inter- and intralaboratory variation of in vitro diffusion cell measurements: An international multicenter study using quasi-standardized methods and materials. <i>Journal of Pharmaceutical Sciences</i> , 2005, 94, 632-638.	1.6	57
17	Does epidermal turnover reduce percutaneous penetration?. <i>Pharmaceutical Research</i> , 2000, 17, 1414-1419.	1.7	55
18	Quantitative structure-permeation relationships for solute transport across silicone membranes. <i>Pharmaceutical Research</i> , 2002, 19, 1622-1629.	1.7	55

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19	Percutaneous absorption of benzoic acid across human skin. I. In vitro experiments and mathematical modeling. <i>Pharmaceutical Research</i> , 1990, 07, 230-236.	1.7	49
20	Batch extraction of amines using emulsion liquid membranes: Importance of reaction reversibility. <i>AIChE Journal</i> , 1987, 33, 43-53.	1.8	45
21	A new method for estimating dermal absorption from chemical exposure. 3. Compared with steady-state methods for prediction and data analysis. <i>Pharmaceutical Research</i> , 1995, 12, 972-982.	1.7	43
22	Increased permeability for polyethylene glycols through skin compromised by sodium lauryl sulphate. <i>Experimental Dermatology</i> , 2006, 15, 801-807.	1.4	42
23	Optimizing Metrics for the Assessment of Bioequivalence Between Topical Drug Products. <i>Pharmaceutical Research</i> , 2008, 25, 1621-1630.	1.7	41
24	Physiologically Relevant Two-Compartment Pharmacokinetic Models for Skin. <i>Journal of Pharmaceutical Sciences</i> , 2000, 89, 1212-1235.	1.6	39
25	Topical bioavailability of diclofenac from locally-acting, dermatological formulations. <i>International Journal of Pharmaceutics</i> , 2017, 529, 55-64.	2.6	38
26	Release rates from topical formulations containing drugs in suspension. <i>Journal of Controlled Release</i> , 1998, 52, 141-148.	4.8	37
27	Effect of Ceramide Tail Length on the Structure of Model Stratum Corneum Lipid Bilayers. <i>Biophysical Journal</i> , 2018, 114, 113-125.	0.2	36
28	Multisolute extraction of organic acids by emulsion liquid membranes. I. Batch experiments and models. <i>Journal of Membrane Science</i> , 1990, 53, 71-103.	4.1	32
29	Characterization of Damaged Skin by Impedance Spectroscopy: Mechanical Damage. <i>Pharmaceutical Research</i> , 2013, 30, 2036-2049.	1.7	31
30	The Transient Dermal Exposure II: Post-Exposure Absorption and Evaporation of Volatile Compounds. <i>Journal of Pharmaceutical Sciences</i> , 2015, 104, 1499-1507.	1.6	31
31	Dermal absorption of environmental contaminants from soil and sediment: a critical review. <i>Journal of Exposure Science and Environmental Epidemiology</i> , 2009, 19, 119-148.	1.8	30
32	Dermatopharmacokinetics: Factors Influencing Drug Clearance from the Stratum Corneum. <i>Pharmaceutical Research</i> , 2009, 26, 865-871.	1.7	29
33	Physiologically relevant two-compartment pharmacokinetic models for skin. <i>Journal of Pharmaceutical Sciences</i> , 2000, 89, 1212-1235.	1.6	28
34	Explaining skin permeation of 2-butoxyethanol from neat and aqueous solutions. <i>International Journal of Pharmaceutics</i> , 2012, 435, 50-62.	2.6	27
35	Mass transfer through membranes with surface roughness. <i>Journal of Membrane Science</i> , 2012, 409-410, 127-136.	4.1	27
36	Reflections on the OECD guidelines for in vitro skin absorption studies. <i>Regulatory Toxicology and Pharmacology</i> , 2020, 117, 104752.	1.3	27

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37	Comparison of numerical simulations of barrier membranes with impermeable flakes. <i>Journal of Membrane Science</i> , 2009, 329, 209-218.	4.1	26
38	Dermal absorption of benzene in occupational settings: Estimating flux and applications for risk assessment. <i>Critical Reviews in Toxicology</i> , 2011, 41, 111-142.	1.9	26
39	Assessment of Dermal Exposure to Pesticide Residues during Re-entry. <i>Environmental Science &amp; Technology</i> , 2011, 45, 4609-4615.	4.6	26
40	Computer simulation of penetrant concentration-depth profiles in the stratum corneum. <i>International Journal of Pharmaceutics</i> , 1992, 87, 175-182.	2.6	25
41	Physiologically Relevant One-Compartment Pharmacokinetic Models for Skin. 1. Development of Models. <i>Journal of Pharmaceutical Sciences</i> , 1998, 87, 470-481.	1.6	25
42	Determining bioequivalence of topical dermatological drug products by tape-stripping. <i>Journal of Pharmacokinetics and Pharmacodynamics</i> , 2008, 35, 337-348.	0.8	25
43	On the correlation between single-frequency impedance measurements and human skin permeability to water. <i>Toxicology in Vitro</i> , 2011, 25, 2095-2104.	1.1	25
44	Bioequivalence Methodologies for Topical Drug Products: In Vitro and Ex Vivo Studies with a Corticosteroid and an Anti-Fungal Drug. <i>Pharmaceutical Research</i> , 2017, 34, 730-737.	1.7	24
45	Divalent Ion Exchange With Alkali. <i>Society of Petroleum Engineers Journal</i> , 1983, 23, 657-668.	0.9	23
46	Absorption into silicone rubber membranes from powders and aqueous solutions. <i>International Journal of Pharmaceutics</i> , 2003, 250, 169-180.	2.6	23
47	Physiologically Relevant One-Compartment Pharmacokinetic Models for Skin. 2. Comparison of Models when Combined with a Systemic Pharmacokinetic Model. <i>Journal of Pharmaceutical Sciences</i> , 1998, 87, 482-490.	1.6	22
48	Characterization of Damaged Skin by Impedance Spectroscopy: Chemical Damage by Dimethyl Sulfoxide. <i>Pharmaceutical Research</i> , 2013, 30, 2607-2624.	1.7	21
49	Permeation of 4-Cyanophenol and Methyl Paraben from Powder and Saturated Aqueous Solution through Silicone Rubber Membranes and Human Skin. <i>Journal of Pharmaceutical Sciences</i> , 2006, 95, 2526-2533.	1.6	19
50	Progress toward a solid-state ionic field effect transistor. <i>Journal of Applied Physics</i> , 2012, 111, 074511.	1.1	19
51	Molecular dynamics simulations of stratum corneum lipid mixtures: A multiscale perspective. <i>Biochemical and Biophysical Research Communications</i> , 2018, 498, 313-318.	1.0	19
52	The determination of a diffusional pathlength through the stratum corneum. <i>International Journal of Pharmaceutics</i> , 1999, 188, 121-124.	2.6	18
53	Leakage and Swell in Emulsion Liquid-Membrane Systems: Batch Experiments. <i>Separation Science and Technology</i> , 2003, 38, 519-539.	1.3	18
54	A Coarse-Grained Model of Stratum Corneum Lipids: Free Fatty Acids and Ceramide NS. <i>Journal of Physical Chemistry B</i> , 2016, 120, 9944-9958.	1.2	18

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55	The Origin of Reversible Hydroxide Uptake on Reservoir Rock. Society of Petroleum Engineers Journal, 1985, 25, 711-718.	0.9	17
56	Physical characterization of 0.5 $\mu$ m cut-off sintered stainless steel membranes. Journal of Membrane Science, 2003, 213, 13-23.	4.1	16
57	Dermally adhered soil: 2. Reconstruction of dry sieve particle size distributions from wet sieve data. Integrated Environmental Assessment and Management, 2006, 2, 385-390.	1.6	16
58	A critical analysis of single-frequency LCR data bridge impedance measurements of human skin. Toxicology in Vitro, 2011, 25, 774-784.	1.1	16
59	Dermal permeation of 2-hydroxypropyl acrylate, a model water-miscible compound: Effects of concentration, thermodynamic activity and skin hydration. International Journal of Pharmaceutics, 2014, 460, 240-247.	2.6	16
60	Percutaneous absorption of benzoic acid across human skin. II. Prediction of an in vivo, skin-flap system using in vitro parameters. Pharmaceutical Research, 1990, 07, 352-358.	1.7	15
61	Chemical Release from Topical Formulations across Synthetic Membranes: Infinite Dose. Journal of Pharmaceutical Sciences, 1997, 86, 187-192.	1.6	14
62	Numerical simulations compared against experimental results for barrier membranes with lithographically printed flakes. Journal of Membrane Science, 2007, 306, 196-208.	4.1	14
63	Mechanism of Enhanced Dermal Permeation of 4-Cyanophenol and Methyl Paraben from Saturated Aqueous Solutions Containing Both Solutes. Skin Pharmacology and Physiology, 2010, 23, 152-163.	1.1	14
64	Skin Absorption Databases and Predictive Equations. , 2002, , 57-141.		14
65	Modeling space charge layer interaction and conductivity enhancement in nanoionic composites. Electrochimica Acta, 2011, 56, 9295-9302.	2.6	13
66	Predicting topical drug clearance from the skin. Drug Delivery and Translational Research, 2021, 11, 729-740.	3.0	13
67	In vivo percutaneous penetration/absorption. International Journal of Pharmaceutics, 1991, 74, 1-8.	2.6	12
68	Effect of PBPK Model Structure on Interpretation of In Vivo Human Aqueous Dermal Exposure Trials. Toxicological Sciences, 2008, 104, 210-217.	1.4	12
69	Chemical transport in silicone rubber membranes from pure powders and saturated aqueous solutions. Journal of Membrane Science, 2007, 292, 35-44.	4.1	11
70	Multisolute extraction of organic acids by emulsion liquid membranes. II. Continuous flow experiments and models. Journal of Membrane Science, 1990, 53, 105-126.	4.1	10
71	Corrected Analysis of the Effect of Preparation Parameters on Leakage in Liquid Surfactant Membrane Systems. Separation Science and Technology, 1992, 27, 753-763.	1.3	10
72	Percutaneous Absorption of 4-Cyanophenol from Freshly Contaminated Soil in Vitro: Effects of Soil Loading and Contamination Concentration. Environmental Science & Technology, 2005, 39, 3723-3731.	4.6	10

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73	Mathematical models of diffusion through membranes from spatially distributed sources. <i>Journal of Membrane Science</i> , 2006, 283, 399-410.	4.1	10
74	Leakage and swell in emulsion liquid membrane systems: Comparing continuous stirred-tank reactor and batch experiments. <i>Journal of Industrial and Engineering Chemistry</i> , 2020, 87, 68-77.	2.9	10
75	Characterization of Water Self-Diffusion in Human Stratum Corneum. <i>Journal of Pharmaceutical Sciences</i> , 2018, 107, 1131-1142.	1.6	8
76	Skin Pharmacokinetics of Transdermal Scopolamine: Measurements and Modeling. <i>Molecular Pharmaceutics</i> , 2021, 18, 2714-2723.	2.3	8
77	Skin pharmacokinetics of diclofenac and co-delivered functional excipients. <i>International Journal of Pharmaceutics</i> , 2022, 614, 121469.	2.6	7
78	Multiscale Simulation of Ternary Stratum Corneum Lipid Mixtures: Effects of Cholesterol Composition. <i>Langmuir</i> , 2022, 38, 7496-7511.	1.6	7
79	Measuring transdermal glucose levels in neonates by passive diffusion: an in vitro porcine skin model. <i>Analytical and Bioanalytical Chemistry</i> , 2017, 409, 3475-3482.	1.9	6
80	Dermal absorption of benzo[a]pyrene into human skin from soil: Effect of artificial weathering, concentration, and exposure duration. <i>Journal of Exposure Science and Environmental Epidemiology</i> , 2017, 27, 610-617.	1.8	6
81	Uncertainty in Measurements of Dermal Absorption of Pesticides. <i>Risk Analysis</i> , 2002, 22, 1175-1182.	1.5	5
82	Re: "Dermal Absorption Potential of Industrial Chemicals: Criteria for Skin Notation?". , 1998, 34, 89-90.		4
83	Measuring the saturation limit of low-volatility organic compounds in soils: Implications for estimates of dermal absorption. <i>Science of the Total Environment</i> , 2010, 408, 6100-6107.	3.9	4
84	Characterization of Water and a Model Lipophilic Compound in Human Stratum Corneum by NMR Spectroscopy and Equilibrium Sorption. <i>Journal of Pharmaceutical Sciences</i> , 2016, 105, 3376-3386.	1.6	4
85	Calculating leakage in emulsion liquid membrane systems from pH measurements. <i>Separation and Purification Technology</i> , 2020, 235, 116162.	3.9	4
86	Aspects of the transdermal delivery of prostaglandins II. <i>International Journal of Pharmaceutics</i> , 1992, 83, 171-175.	2.6	3
87	Removal of Selenium from Contaminated Waters Using Emulsion Liquid Membranes. <i>ACS Symposium Series</i> , 1996, , 342-360.	0.5	3
88	Poisson-Boltzmann model of space charge layer effects on conductivity in randomly distributed nanoionic composites. <i>Electrochimica Acta</i> , 2012, 83, 454-462.	2.6	3
89	Assessment of dermal bioavailability: predicting the input function for topical glucocorticoids using stratum corneum sampling. <i>Drug Delivery and Translational Research</i> , 2022, 12, 851-861.	3.0	3
90	Dermal Absorption from Pesticide Residues. , 2002, , 55-78.		3

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91	Skin Absorption Databases and Predictive Equations. , 2002, , .		3
92	On the Use of the Power-Law Model for Interpreting Constant-Phase-Element Parameters. Journal of the Brazilian Chemical Society, 2014, , .	0.6	3
93	Single-Frequency LCR Databridge Impedance Measurements as Surrogate Measures for the Integrity of Human Skin. Journal of the Electrochemical Society, 2012, 159, G161-G165.	1.3	2
94	AMINE PHASE PARTITIONING USING EMULSION LIQUID MEMBRANES. Chemical Engineering Communications, 1988, 64, 207-215.	1.5	1
95	Comment on Sartorelli <i>et al.</i> (1998): Invalid Calculation of Permeability Coefficients. Annals of Occupational Hygiene, 2003, 47, 165-7; author reply 167-72.	1.9	1
96	Response to Farahmand and Maibach's Corrigenda. International Journal of Pharmaceutics, 2010, 398, 254-256.	2.6	1
97	Maximum flux versus transdermal delivery: Comment on Farahmand and Maibach (2009). International Journal of Pharmaceutics, 2010, 398, 247-248.	2.6	1
98	Modeling Dermal Absorption from Soils and Powders Using Stratum Corneum Tape-Stripping In Vivo. , 2005, , 191-212.		1
99	Predicting Dermal Absorption from Contact with Chemically Contaminated Soils. , 1997, , 227-244.		1
100	Aqueous Ion Transport Studies in Stainless Steel Membranes. Industrial & Engineering Chemistry Research, 2003, 42, 2853-2860.	1.8	0
101	Single-Frequency LCR Databridge Impedance Measurements as Surrogate Measures for the Integrity of Human Skin. ECS Transactions, 2012, 41, 3-14.	0.3	0
102	Comments on Petty <i>et al.</i> (2011), "A quantitative method for estimating dermal benzene absorption from benzene-containing hydrocarbon liquids," <i>JOEH</i> , 17:287-300.. International Journal of Occupational and Environmental Health, 2013, 19, 139-146.	1.2	0
103	Letter to the editor RE: Hussein <i>et al.</i> (2019), "Application of emulsion and Pickering emulsion liquid membrane technique for wastewater treatment: an overview" <i>Environmental Science and Pollution Research</i> , 2020, 27, 22135-22137.	2.7	0
104	Evaluating the Transdermal Permeability of Chemicals. , 2002, , .		0
105	Partitioning of Chemicals into Skin. , 2002, , .		0
106	On the Estimation and Use of Dermal Permeability Coefficients. ISEE Conference Abstracts, 2018, 2018, .	0.0	0
107	Investigator Impact on Reproducibility of Drug Bioavailability in Stratum Corneum Sampling by Tape Stripping. Pharmaceutical Research, 2022, 39, 703.	1.7	0
108	Correction to "Skin Pharmacokinetics of Transdermal Scopolamine: Measurements and Modeling" <i>Molecular Pharmaceutics</i> , 0, , .	2.3	0