David F Katz

List of Publications by Year
in descending order

74 papers	5,048 citations	81900 39 h-index	85541 71 g-index
74 all docs	74 docs citations	74 times ranked	3067 citing authors

#	Article	IF	Citations
1	Sodium bicarbonate gels: a new promising strategy for the treatment of vulvovaginal candidosis. European Journal of Pharmaceutical Sciences, 2021, 157, 105621.	4.0	8
2	Deducing Mucosal Pharmacokinetics and Pharmacodynamics of the Anti-HIV Molecule Tenofovir from Measurements in Blood. Scientific Reports, 2019, 9, 82.	3.3	2
3	Label-Free Measurements of Tenofovir Diffusion Coefficients in a Microbicide Gel Using Raman Spectroscopy. Journal of Pharmaceutical Sciences, 2017, 106, 639-644.	3.3	11
4	Coupled gel spreading and diffusive transport models describing microbicidal drug delivery. Chemical Engineering Science, 2016, 152, 12-20.	3.8	2
5	The rational design and development of a dual chamber vaginal/rectal microbicide gel formulation for HIV prevention. Antiviral Research, 2015, 120, 153-164.	4.1	21
6	Vaginal drug distribution modeling. Advanced Drug Delivery Reviews, 2015, 92, 2-13.	13.7	48
7	Designing Preclinical Perceptibility Measures to Evaluate Topical Vaginal Gel Formulations: Relating User Sensory Perceptions and Experiences to Formulation Properties. AIDS Research and Human Retroviruses, 2014, 30, 78-91.	1.1	31
8	Tenofovir Diphosphate Concentrations in Human Vaginal Stroma after Different Dosage Regimens with a Vaginal Gel: A Modeling Approach. AIDS Research and Human Retroviruses, 2014, 30, A258-A259.	1.1	2
9	Mass Transport Theory Improves Compartmental PK Modeling of Microbicides and Helps Guide Product Science and Development. AIDS Research and Human Retroviruses, 2014, 30, A147-A147.	1.1	1
10	Transient swelling, spreading, and drug delivery by a dissolved anti-HIV microbicide-bearing film. Physics of Fluids, 2013, 25, 31901.	4.0	16
11	Multicompartmental Pharmacokinetic Model of Tenofovir Delivery by a Vaginal Gel. PLoS ONE, 2013, 8, e74404.	2.5	25
12	Measuring Dilution of Microbicide Gels with Optical Imaging. PLoS ONE, 2013, 8, e82213.	2.5	5
13	Transient spreading and swelling behavior of a gel deploying an anti-HIV topical microbicide. Journal of Non-Newtonian Fluid Mechanics, 2012, 187-188, 36-42.	2.4	18
14	The effects of inhomogeneous boundary dilution on the coating flow of an anti-HIV microbicide vehicle. Physics of Fluids, 2011, 23, 093101.	4.0	16
15	Using modeling to help understand vaginal microbicide functionality and create better products. Drug Delivery and Translational Research, 2011, 1, 256-276.	5.8	22
16	Design of a Semisolid Vaginal Microbicide Gel by Relating Composition to Properties and Performance. Pharmaceutical Research, 2010, 27, 2478-2491.	3.5	37
17	Semi-solid gels function as physical barriers to human immunodeficiency virus transport in vitro. Antiviral Research, 2010, 88, 143-151.	4.1	17
18	Compartmental Transport Model of Microbicide Delivery by an Intravaginal Ring. Journal of Pharmaceutical Sciences, 2010, 99, 3514-3521.	3.3	26

#	Article	IF	Citations
19	Multivalent Benzoboroxole Functionalized Polymers as gp120 Glycan Targeted Microbicide Entry Inhibitors. Molecular Pharmaceutics, 2010, 7, 116-129.	4.6	59
20	Transport Theory for HIV Diffusion through In Vivo Distributions of Topical Microbicide Gels. Biophysical Journal, 2009, 97, 2379-2387.	0.5	18
21	Dilution of Microbicide Gels With Vaginal Fluid and Semen Simulants: Effect on Rheological Properties and Coating Flow. Journal of Pharmaceutical Sciences, 2008, 97, 1030-1038.	3.3	43
22	Biophysical Analysis of Prototype Microbicidal Gels. Journal of Pharmaceutical Sciences, 2007, 96, 661-669.	3.3	20
23	Temperature and pH Sensitive Hydrogels: An Approach Towards Smart Semen-Triggered Vaginal Microbicidal Vehicles. Journal of Pharmaceutical Sciences, 2007, 96, 670-681.	3.3	80
24	Dynamics of HIV Neutralization by a Microbicide Formulation Layer: Biophysical Fundamentals and Transport Theory. Biophysical Journal, 2006, 91, 2121-2130.	0.5	37
25	Squeezing Flows of Vaginal Gel Formulations Relevant to Microbicide Drug Delivery. Journal of Biomechanical Engineering, 2006, 128, 540-553.	1.3	58
26	Erosion of microbicide formulation coating layers: Effects of contact and shearing with vaginal fluid or semen. Journal of Pharmaceutical Sciences, 2005, 94, 1705-1712.	3.3	37
27	A Review of the Physical and Chemical Properties of Human Semen and the Formulation of a Semen Simulant. Journal of Andrology, 2005, 26, 459-469.	2.0	345
28	Gravityâ€induced coating flows of vaginal gel formulations: In vitro experimental analysis. Journal of Pharmaceutical Sciences, 2004, 93, 2941-2952.	3.3	43
29	Andrology Lab Corner*: Reflections on CASA After 25 Years. Journal of Andrology, 2004, 25, 317-325.	2.0	139
30	Effect of temperature and pH on contraceptive gel viscosity. Contraception, 2003, 67, 57-64.	1.5	52
31	Comparison of the rheological properties of Advantage-S and Replens. Contraception, 2001, 64, 393-396.	1.5	27
32	Rheological properties of contraceptive gels. Contraception, 2000, 62, 321-326.	1.5	92
33	Factors influencing nonoxynol-9 permeation and bioactivity in cervical mucus. Journal of Controlled Release, 1999, 60, 23-34.	9.9	28
34	A vaginal fluid simulant. Contraception, 1999, 59, 91-95.	1.5	598
35	Alteration of human sperm kinematics in cervical mucus due to nonoxynol-9. Contraception, 1997, 55, 209-217.	1.5	14
36	Location of the PH-20 Protein on Acrosome-Intact and Acrosome-Reacted Spermatozoa of Cynomolgus Macaques1. Biology of Reproduction, 1995, 52, 105-114.	2.7	60

#	Article	IF	Citations
37	Kinematic Response of Human Spermatozoa to Nonoxynol-91. Biology of Reproduction, 1994, 50, 903-911.	2.7	8
38	Cervical mucus. Advanced Drug Delivery Reviews, 1993, 11, 385-401.	13.7	35
39	Methods for assessing rat sperm motility. Reproductive Toxicology, 1992, 6, 267-273.	2.9	61
40	Laboratory methods for assessing human semen in epidemiologic studies: A consensus report. Reproductive Toxicology, 1992, 6, 275-279.	2.9	54
41	Human cervical mucus: Research update. American Journal of Obstetrics and Gynecology, 1991, 165, 1984-1986.	1.3	63
42	Characteristics of Sperm Motility. Annals of the New York Academy of Sciences, 1991, 637, 409-423.	3.8	17
43	A study of the effect of perchloroethylene exposure on semen quality in dry cleaning workers. American Journal of Industrial Medicine, 1991, 20, 575-591.	2.1	72
44	A study of the effect of perchloroethylene exposure on the reproductive outcomes of wives of dry-cleaning workers. American Journal of Industrial Medicine, 1991, 20, 593-600.	2.1	42
45	The use of a urinary estrone conjugates assay for detection of optimal mating time in the cynomolgus macaque (Macaca fascicularis). Journal of Medical Primatology, 1991, 20, 229-234.	0.6	35
46	Mechanisms of filtration of morphologically abnormal human sperm by cervical mucus. Fertility and Sterility, 1990, 54, 513-516.	1.0	70
47	Organization of the Hamster Cumulus Extracellular Matrix: A Hyaluronate-Glycoprotein Gel which Modulates Sperm Access to the Oocyte. Extracellular matrix/Hyaluronate/Oocyte-cumulus complex/Extracellular matrix glycoproteins/Sperm enzymes. Development Growth and Differentiation, 1990, 32, 353-365.	1.5	28
48	Factors regulating mammalian sperm migration through the female reproductive tract and oocyte vestments. Gamete Research, 1989, 22, 443-469.	1.7	214
49	Movement of cynomolgus and rhesus monkey spermatozoa collected from the lower female reproductive tract. Gamete Research, 1989, 24, 333-342.	1.7	5
50	Biophysical properties of the zona pellucida measured by capillary suction: Is zona hardening a mechanical phenomenon?. The Journal of Experimental Zoology, 1988, 245, 206-219.	1.4	60
51	Localization of cortical granule constituents before and after exocytosis in the hamster egg. The Journal of Experimental Zoology, 1988, 246, 81-93.	1.4	104
52	Early Indicators of Male Reproductive Toxicity. Risk Analysis, 1988, 8, 21-26.	2.7	3
53	Structure of the cumulus matrix and zona pellucida in the golden hamster: A new view of sperm interaction with oocyte-associated extracellular matrices. Cell and Tissue Research, 1988, 251, 555-564.	2.9	59
54	Semen Analysis. Urologic Clinics of North America, 1987, 14, 441-449.	1.8	16

#	Article	IF	Citations
55	In vitro studies of the golden hamster sperm acrosome reaction: Completion on the zona pellucida and induction by homologous soluble zonae pellucidae. Developmental Biology, 1986, 114, 119-131.	2.0	160
56	Morphometric Analysis of Spermatozoa in the Assessment of Human Male Fertility. Journal of Andrology, 1986, 7, 203-210.	2.0	164
57	The evolution of hamster sperm motility during capacitation and interaction with the ovum vestments in vitro. Gamete Research, 1986, 14, 333-346.	1.7	42
58	Changes in motility that accompany the acrosome reaction in hyperactivated hamster spermatozoa. Gamete Research, 1984, 10, 253-265.	1.7	66
59	Movement Characteristics and Acrosomal Status of Rabbit Spermatozoa Recovered at the Site and Time of Fertilization. Biology of Reproduction, 1983, 29, 1277-1287.	2.7	132
60	Movement Characteristics of Bovine Epididymal Spermatozoa: Effects of Forward Motility Protein and Epididymal Maturation. Biology of Reproduction, 1983, 29, 389-399.	2.7	46
61	Assessment of a new spermicidal agent against ejaculated dog and human spermatozoa in vitro. Fertility and Sterility, 1983, 40, 231-236.	1.0	14
62	Human sperm penetration of zona-free hamster eggs after storage of the semen for 48 hours at 2Â° C to 5Â° C. Fertility and Sterility, 1983, 39, 536-541.	1.0	98
63	What functions of the sperm cell are measured by in vitro fertilization of zona-free hamster eggs?. Fertility and Sterility, 1983, 40, 344-352.	1.0	98
64	Differences in the Movement of Morphologically Normal and Abnormal Human Seminal Spermatozoa. Biology of Reproduction, 1982, 26, 566-570.	2.7	107
65	The Mechanisms and Analysis of Sperm Migration Through Cervical Mucus. Advances in Experimental Medicine and Biology, 1982, 144, 319-330.	1.6	10
66	Simultaneous Assessment of Human Sperm Motility and Morphology by Videomicrography. Journal of Urology, 1981, 126, 357-360.	0.4	49
67	Sperm Motility Assessment by Videomicrography. Fertility and Sterility, 1981, 35, 188-193.	1.0	193
68	The Importance of Seminal Plasma for Sperm Penetration of Human Cervical Mucus. Fertility and Sterility, 1980, 34, 569-572.	1.0	40
69	A New Quantitative Test for Sperm Penetration into Cervical Mucus. Fertility and Sterility, 1980, 33, 179-186.	1.0	94
70	Penetration of Human Spermatozoa into the Human Zona Pellucida and the Zona-Free Hamster Egg: A Study of Fertile Donors and Infertile Patients**Supported in part by a grant from the International Planned Parenthood Federation (to R. Y.).. Fertility and Sterility, 1980, 33, 534-542.	1.0	340
71	In Vitro Capacitation of Human Spermatozoa After Passage Through a Column of Cervical Mucus. Fertility and Sterility, 1980, 34, 604-606.	1.0	53
72	Motility of Rabbit Spermatozoa in the Secretions of the Oviduct. Biology of Reproduction, 1980, 22, 1083-1088.	2.7	46

#	Article	IF	Citations
73	A Simple Inexpensive Method for Objective Assessment of Human Sperm Movement Characteristics. Fertility and Sterility, 1979, 31, 162-172.	1.0	160
74	On the propulsion of micro-organisms near solid boundaries. Journal of Fluid Mechanics, 1974, 64, 33-49.	3.4	132