# Peter J Skrdla

## List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/4365821/publications.pdf

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|---|---|---|---|
| 50 papers | 826 citations | 471061 17 h-index | 525886 27 g-index |
| 51 all docs | 51 docs citations | 51 times ranked | 915 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Practical comparison of 2.7Î¼m fused-core silica particles and porous sub-2Î¼m particles for fast separations in pharmaceutical process development. Journal of Pharmaceutical and Biomedical Analysis, 2010, 51, 131-137. | 1.4 | 78 |
| 2 | Semiempirical Equations for Modeling Solid-State Kinetics Based on a Maxwellâ˜Boltzmann Distribution of Activation Energies:Â Applications to a Polymorphic Transformation under Crystallization Slurry Conditions and to the Thermal Decomposition of AgMnO4Crystals. Journal of Physical Chemistry B, 2005, 109, 10611-10619. | 1.2 | 59 |
| 3 | Preparation of Polyetherol-Appended Sulfur Porphyrazines and Investigations of Peripheral Metal Ion Binding in Polar Solvents. Inorganic Chemistry, 2000, 39, 3963-3969. | 1.9 | 56 |
| 4 | Solâ˜Gel-Based, Planar Waveguide Sensor for Water Vapor. Analytical Chemistry, 1999, 71, 1332-1337. | 3.2 | 49 |
| 5 | Crystallizations, Solid-State Phase Transformations and Dissolution Behavior Explained by Dispersive Kinetic Models Based on a Maxwellâ˜Boltzmann Distribution of Activation Energies: Theory, Applications, and Practical Limitations. Journal of Physical Chemistry A, 2009, 113, 9329-9336. | 1.1 | 39 |
| 6 | Kinetics and Thermodynamics of Efficient Chiral Symmetry Breaking in Nearly Racemic Mixtures of Conglomerate Crystals. Crystal Growth and Design, 2011, 11, 1957-1965. | 1.4 | 30 |
| 7 | Use of Dispersive Kinetic Models for Nucleation and Denucleation to Predict Steady-State Nanoparticle Size Distributions and the Role of Ostwald Ripening. Journal of Physical Chemistry C, 2012, 116, 214-225. | 1.5 | 30 |
| 8 | Roles of Nucleation, Denucleation, Coarsening, and Aggregation Kinetics in Nanoparticle Preparations and Neurological Disease. Langmuir, 2012, 28, 4842-4857. | 1.6 | 28 |
| 9 | A simple model for complex dissolution kinetics: A case study of norfloxacin. Journal of Pharmaceutical and Biomedical Analysis, 2007, 45, 251-256. | 1.4 | 26 |
| 10 | Disproportionation of a crystalline citrate salt of a developmental pharmaceutical compound: Characterization of the kinetics using pH monitoring and online Raman spectroscopy plus quantitation of the crystalline free base form in binary physical mixtures using FT-Raman, XRPD and DSC. Journal of Pharmaceutical and Biomedical Analysis, 2014, 90, 186-191. | 1.4 | 26 |
| 11 | Use of Dispersive Kinetic Models To Describe the Rate of Metal Nanoparticle Self-Assembly. Chemistry of Materials, 2008, 20, 3-4. | 3.2 | 25 |
| 12 | Use of Coupled Rate Equations To Describe Nucleation-and-Branching Rate-Limited Solid-State Processes. Journal of Physical Chemistry A, 2004, 108, 6709-6712. | 1.1 | 23 |
| 13 | Use of a Quality-by-Design approach to justify removal of the HPLC weight % assay from routine API stability testing protocols. Journal of Pharmaceutical and Biomedical Analysis, 2009, 50, 794-796. | 1.4 | 23 |
| 14 | An HPLC chromatographic reactor approach for investigating the hydrolytic stability of a pharmaceutical compound. Journal of Pharmaceutical and Biomedical Analysis, 2006, 41, 883-890. | 1.4 | 21 |
| 15 | The amorphous state: first-principles derivation of the Gordonâ€“Taylor equation for direct prediction of the glass transition temperature of mixtures; estimation of the crossover temperature of fragile glass formers; physical basis of the â€œRule of 2/3â€• Physical Chemistry Chemical Physics, 2017, 19, 20523-20532. | 1.3 | 20 |
| 16 | A Collision Theory-Based Derivation of Semiempirical Equations for Modeling Dispersive Kinetics and Their Application to a Mixed-Phase Crystal Decomposition. Journal of Physical Chemistry A, 2006, 110, 11494-11500. | 1.1 | 19 |
| 17 | Dispersive kinetic models for isothermal solid-state conversions and their application to the thermal decomposition of oxacillin. Thermochimica Acta, 2007, 453, 14-20. | 1.2 | 17 |
| 18 | Physicochemically Relevant Modeling of Nucleation-And-Growth Kinetics: Investigation of Additive Effects on the Solvent-Mediated Phase Transformation of Carbamazepine. Crystal Growth and Design, 2008, 8, 4185-4189. | 1.4 | 17 |

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|---|---|---|---|
| 19 | GCâ€“MS Study of the formation of alkoxysilanes from a solâ€“gel precursor in a hydrophobic solution: A potential new route to hybrid molecular imprinted polymers. Journal of Non-Crystalline Solids, 2006, 352, 3302-3309. | 1.5 | 16 |
| 20 | Reduction of Indicator Leaching from Doped Sol-Gels by Attachment of Macromolecular Carriers. Applied Spectroscopy, 1999, 53, 785-791. | 1.2 | 15 |
| 21 | Practical Estimation of Amorphous Solubility Enhancement Using Thermoanalytical Data: Determination of the Amorphous/Crystalline Solubility Ratio for Pure Indomethacin and Felodipine. Journal of Pharmaceutical Sciences, 2016, 105, 2625-2630. | 1.6 | 14 |
| 22 | Thermal decomposition oftert-butyl peroxide in a gas chromatographic reactor: A comparison of kinetic approaches. International Journal of Chemical Kinetics, 2004, 36, 386-393. | 1.0 | 13 |
| 23 | Can we trust kinetic methods of thermal analysis?. Analyst, The, 2020, 145, 745-749. | 1.7 | 13 |
| 24 | Comparison of Two Types of Dispersive Kinetic Approaches in Relation to Time-Dependent Marcus Theory. Journal of Physical Chemistry A, 2007, 111, 11809-11813. | 1.1 | 12 |
| 25 | Activation Energy Distributions Predicted by Dispersive Kinetic Models for Nucleation and Denucleation: Anomalous Diffusion Resulting from Quantization. Journal of Physical Chemistry A, 2011, 115, 6413-6425. | 1.1 | 12 |
| 26 | Starch-iodine films respond to water vapor. Analytica Chimica Acta, 2002, 455, 49-52. | 2.6 | 11 |
| 27 | Statistical Thermodynamic Description of Homogeneous Dispersive Kinetics. Journal of Physical Chemistry A, 2007, 111, 4248-4251. | 1.1 | 11 |
| 28 | Modeling Recrystallization Kinetics Following the Dissolution of Amorphous Drugs. Molecular Pharmaceutics, 2020, 17, 219-228. | 2.3 | 11 |
| 29 | Semi-empirical model fits femtosecond gas phase reaction kinetics. Chemical Physics Letters, 2006, 419, 130-133. | 1.2 | 10 |
| 30 | On the Stability of Nano-formulations Prepared by Direct Synthesis: Simulated Ostwald Ripening of a Typical Nanocrystal Distribution Post-nucleation. AAPS PharmSciTech, 2019, 20, 34. | 1.5 | 9 |
| 31 | Crystallization of Glycine During Freezing of a 40/60 w/w Sucrose/Glycine Excipient System: An Alternative to the Johnsonâ€“Mehlâ€“Avrami (JMA) Equation for Modeling Dispersive Kinetics. Journal of Pharmaceutical Sciences, 2007, 96, 2107-2110. | 1.6 | 8 |
| 32 | Semi-empirical description of the constant Î² in the equation of state for interfacial tension. Journal of Colloid and Interface Science, 2011, 360, 313-316. | 5.0 | 8 |
| 33 | Predicted amorphous solubility and dissolution rate advantages following moisture sorption: Case studies of indomethacin and felodipine. International Journal of Pharmaceutics, 2019, 555, 100-108. | 2.6 | 8 |
| 34 | Dynamical Considerations for Kinetic Methods in Thermal Analysis. Journal of Physics and Chemistry of Solids, 2013, 74, 1375-1379. | 1.9 | 7 |
| 35 | Dispersive kinetic models predict variation of the activation energy with extent of conversion observed experimentally in isoconversional data. Thermochimica Acta, 2014, 578, 68-73. | 1.2 | 7 |
| 36 | Predicting the solubility enhancement of amorphous drugs and related phenomena using basic thermodynamic principles and semi-empirical kinetic models. International Journal of Pharmaceutics, 2019, 567, 118465. | 2.6 | 7 |

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|---|---|---|---|
| 37 | Planar Integrated Optical Waveguide Sensor for Isopropyl Alcohol in Aqueous Media. Journal of Sol-Gel Science and Technology, 2002, 24, 167-173. | 1.1 | 6 |
| 38 | Statistical kinetic approach for modeling lifespan. Biophysical Chemistry, 2005, 118, 22-24. | 1.5 | 6 |
| 39 | Estimating the maximal solubility advantage of drug salts. International Journal of Pharmaceutics, 2021, 595, 120228. | 2.6 | 6 |
| 40 | Use of realâ€time FTâ€IR monitoring of a pharmaceutical compound under stress atmospheric conditions to characterize its solidâ€state degradation kinetics. International Journal of Chemical Kinetics, 2010, 42, 25-36. | 1.0 | 5 |
| 41 | Comment on â€œFitting and Interpreting Transition-Metal Nanocluster Formation and Other Sigmoidal-Appearing Kinetic Data: A More Thorough Testing of Dispersive Kinetic vs Chemical-Mechanism-Based Equations and Treatments for 4-Step Type Kinetic Dataâ€. Chemistry of Materials, 2010, 22, 2685-2686. | 3.2 | 5 |
| 42 | Observation of oscillatory behavior during the dissolution of a pharmaceutical compound and evidence for the existence of an inverse Ostwald rule. Physical Chemistry Chemical Physics, 2010, 12, 3788. | 1.3 | 5 |
| 43 | Investigations into the chromatographic behavior of a doxorubicinâ€“peptide conjugate. Journal of Chromatography A, 2002, 973, 27-38. | 1.8 | 4 |
| 44 | Atomistic Description of Two-Dimensional Hexagonal Close-Packed Critical Nuclei Exhibiting Quantization of the Activation Energy Barrier. Crystal Growth and Design, 2013, 13, 1970-1977. | 1.4 | 4 |
| 45 | A high-temperature liquid chromatographic reactor approach for investigating the solvolytic stability of a pharmaceutical compound and an investigation of its retention behavior on a C18-modified zirconia stationary phase. Journal of Pharmaceutical and Biomedical Analysis, 2008, 47, 312-319. | 1.4 | 2 |
| 46 | Modeling Sigmoidal Transients Using Dispersive Kinetic Models to Predict Nanoparticle Size Distributions. Crystal Growth and Design, 2021, 21, 1843-1853. | 1.4 | 2 |
| 47 | Investigation into the Gaussian time-dependence of the rate coefficient in dispersive kinetic models applied to simple gas-phase chemical reactions. Molecular Physics, 2014, 112, 97-100. | 0.8 | 1 |
| 48 | Relaxation kinetics in fragile glass-forming liquids: a dispersive kinetics view of Vogelâ€“Tammannâ€“Fulcher behaviour in o-terphenyl. Journal of Commonwealth Law and Legal Education, 2019, 60, 104-114. | 0.2 | 1 |
| 49 | Modelling sub-micron particle slip flow in liquid chromatography. Talanta, 2020, 208, 120400. | 2.9 | 0 |
| 50 | Predicting the Solubility Advantage of Amorphous Drugs: Effect of pH. Journal of Pharmaceutical Sciences, 2020, 109, 1627-1629. | 1.6 | 0 |