

# Doris Segets

## List of Publications by Year in descending order

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75  
papers

2,114  
citations

218592

26  
h-index

243529

44  
g-index

87  
all docs

87  
docs citations

87  
times ranked

2551  
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis of Optical Absorbance Spectra for the Determination of ZnO Nanoparticle Size Distribution, Solubility, and Surface Energy. ACS Nano, 2009, 3, 1703-1710.	7.3	248
2	Determination of the Quantum Dot Band Gap Dependence on Particle Size from Optical Absorbance and Transmission Electron Microscopy Measurements. ACS Nano, 2012, 6, 9021-9032.	7.3	138
3	Experimental and Theoretical Studies of the Colloidal Stability of Nanoparticles—A General Interpretation Based on Stability Maps. ACS Nano, 2011, 5, 4658-4669.	7.3	102
4	Efficient adsorption and sustainable degradation of gaseous acetaldehyde and o-xylene using rGO-TiO <sub>2</sub> photocatalyst. Chemical Engineering Journal, 2018, 349, 708-718.	6.6	102
5	Crossing the Valley of Death: From Fundamental to Applied Research in Electrolysis. JACS Au, 2021, 1, 527-535.	3.6	79
6	Determination of Hansen parameters for particles: A standardized routine based on analytical centrifugation. Advanced Powder Technology, 2018, 29, 1550-1561.	2.0	77
7	Adaptive Behavior of Dynamic Orthoester Cryptands. Angewandte Chemie - International Edition, 2017, 56, 776-781.	7.2	72
8	A General Approach To Study the Thermodynamics of Ligand Adsorption to Colloidal Surfaces Demonstrated by Means of Catechols Binding to Zinc Oxide Quantum Dots. Chemistry of Materials, 2015, 27, 358-369.	3.2	64
9	Real-Time Monitoring of the Nucleation and Growth of ZnO Nanoparticles Using an Optical Hyper-Rayleigh Scattering Method. Journal of Physical Chemistry C, 2009, 113, 11995-12001.	1.5	62
10	Wavelet neural network modeling for the retention efficiency of sub-15 nm nanoparticles in ultrafiltration under small particle to pore diameter ratio. Journal of Membrane Science, 2021, 635, 119503.	4.1	60
11	Optimum between purification and colloidal stability of ZnO nanoparticles. Advanced Powder Technology, 2010, 21, 41-49.	2.0	58
12	Simultaneous Analysis of Hydrodynamic and Optical Properties Using Analytical Ultracentrifugation Equipped with Multiwavelength Detection. Analytical Chemistry, 2015, 87, 3396-3403.	3.2	57
13	New possibilities of accurate particle characterisation by applying direct boundary models to analytical centrifugation. Nanoscale, 2015, 7, 6574-6587.	2.8	52
14	Simultaneous Identification of Spectral Properties and Sizes of Multiple Particles in Solution with Subnanometer Resolution. Angewandte Chemie - International Edition, 2016, 55, 11770-11774.	7.2	46
15	Shape Transformation Mechanism of Silver Nanorods in Aqueous Solution. Small, 2011, 7, 147-156.	5.2	42
16	Quantitative evaluation of size selective precipitation of Mn-doped ZnS quantum dots by size distributions calculated from UV/Vis absorbance spectra. Journal of Nanoparticle Research, 2013, 15, 1.	0.8	41
17	A Combined SAXS/SANS Study for the in Situ Characterization of Ligand Shells on Small Nanoparticles: The Case of ZnO. Langmuir, 2015, 31, 10130-10136.	1.6	40
18	Investigation of the size–property relationship in CuInS <sub>2</sub> quantum dots. Nanoscale, 2015, 7, 18105-18118.	2.8	38

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19	<i>In Situ</i> Study on the Evolution of Multimodal Particle Size Distributions of ZnO Quantum Dots: Some General Rules for the Occurrence of Multimodalities. <i>Journal of Physical Chemistry B</i> , 2015, 119, 15370-15380.	1.2	38
20	Liquid filtration of nanoparticles through track-etched membrane filters under unfavorable and different ionic strength conditions: Experiments and modeling. <i>Journal of Membrane Science</i> , 2017, 524, 682-690.	4.1	37
21	A population balance model of quantum dot formation: Oriented growth and ripening of ZnO. <i>Chemical Engineering Science</i> , 2012, 70, 4-13.	1.9	35
22	Tuning the size and the optical properties of ZnO mesocrystals synthesized under solvothermal conditions. <i>Nanoscale</i> , 2012, 4, 864-873.	2.8	34
23	Quantitative evaluation of nanoparticle classification by size-exclusion chromatography. <i>Powder Technology</i> , 2018, 339, 264-272.	2.1	34
24	An experimental study of ultrafiltration for sub-10 nm quantum dots and sub-150 nm nanoparticles through PTFE membrane and Nuclepore filters. <i>Journal of Membrane Science</i> , 2016, 497, 153-161.	4.1	27
25	Automated synthesis of quantum dot nanocrystals by hot injection: Mixing induced self-focusing. <i>Chemical Engineering Journal</i> , 2017, 320, 232-243.	6.6	27
26	Mixed Layers of $\beta$ -Lactoglobulin and SDS at Air/Water Interfaces with Tunable Intermolecular Interactions. <i>Journal of Physical Chemistry B</i> , 2014, 118, 4098-4105.	1.2	26
27	FIMOR: An efficient simulation for ZnO quantum dot ripening applied to the optimization of nanoparticle synthesis. <i>Chemical Engineering Journal</i> , 2015, 260, 706-715.	6.6	26
28	2D analysis of polydisperse core-shell nanoparticles using analytical ultracentrifugation. <i>Analyst</i> , 2017, 142, 206-217.	1.7	25
29	Classification of Zinc Sulfide Quantum Dots by Size: Insights into the Particle Surface-Solvent Interaction of Colloids. <i>Journal of Physical Chemistry C</i> , 2015, 119, 4009-4022.	1.5	24
30	Simple and Reliable Method for Studying the Adsorption Behavior of Aquivion Ionomers on Carbon Black Surfaces. <i>Langmuir</i> , 2018, 34, 12324-12334.	1.6	23
31	Unified Design Strategies for Particulate Products. <i>Advances in Chemical Engineering</i> , 2015, , 1-81.	0.5	22
32	Mechanochemically induced sulfur doping in ZnO via oxygen vacancy formation. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 13838-13845.	1.3	21
33	A solution-based ALD route towards $(\text{CH}_3\text{NH}_3)_3(\text{Pb})$ perovskite lead sulfide films. <i>Journal of Materials Chemistry A</i> , 2019, 7, 25112-25119.	5.2	21
34	Analysis of Particle Size Distributions of Quantum Dots: From Theory to Application. <i>KONA Powder and Particle Journal</i> , 2016, 33, 48-62.	0.9	19
35	Sedimentation Dynamics of Colloidal Formulations through Direct Visualization: Implications for Fuel Cell Catalyst Inks. <i>ACS Applied Nano Materials</i> , 2020, 3, 7384-7391.	2.4	18
36	A widely applicable tool for modeling precipitation processes. <i>Computers and Chemical Engineering</i> , 2017, 98, 197-208.	2.0	16

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37	Predicting collision efficiencies of colloidal nanoparticles in single spherical and fibrous collectors using an individual particle tracking method. <i>Separation and Purification Technology</i> , 2019, 222, 202-213.	3.9	16
38	On the state and stability of fuel cell catalyst inks. <i>Advanced Powder Technology</i> , 2021, 32, 3845-3859.	2.0	16
39	Spectra Library: An Assumption-Free In Situ Method to Access the Kinetics of Catechols Binding to Colloidal ZnO Quantum Dots. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 932-935.	7.2	13
40	Enhanced Nucleation of Lysozyme Using Inorganic Silica Seed Particles of Different Sizes. <i>Crystal Growth and Design</i> , 2015, 15, 3582-3593.	1.4	12
41	Retention mechanisms of 1.7- $\mu\text{m}$ ZnS quantum dots and sub-20- $\mu\text{m}$ Au nanoparticles in ultrafiltration membranes. <i>Journal of Membrane Science</i> , 2018, 567, 58-67.	4.1	12
42	Suspension- and powder-based derivation of Hansen dispersibility parameters for zinc oxide quantum dots. <i>Particuology</i> , 2019, 44, 71-79.	2.0	11
43	Diffusion of Gold Nanoparticles in Inverse Opals Probed by Heterodyne Dynamic Light Scattering. <i>Transport in Porous Media</i> , 2020, 131, 723-737.	1.2	11
44	Calcium Oxalate Crystallization: Influence of pH, Energy Input, and Supersaturation Ratio on the Synthesis of Artificial Kidney Stones. <i>ACS Omega</i> , 2021, 6, 26566-26574.	1.6	11
45	Changes within the stabilizing layer of ZnO nanoparticles upon washing. <i>Journal of Colloid and Interface Science</i> , 2017, 504, 356-362.	5.0	10
46	Enhanced Crystallization of Lysozyme Mediated by the Aggregation of Inorganic Seed Particles. <i>Crystal Growth and Design</i> , 2017, 17, 967-981.	1.4	10
47	Evolution of the Ligand Shell Around Small ZnO Nanoparticles During the Exchange of Acetate by Catechol: A Small Angle Scattering Study. <i>ChemNanoMat</i> , 2019, 5, 116-123.	1.5	10
48	Rapid Characterization and Parameter Space Exploration of Perovskites Using an Automated Routine. <i>ACS Combinatorial Science</i> , 2020, 22, 6-17.	3.8	10
49	Towards a framework for evaluating and reporting Hansen solubility parameters: applications to particle dispersions. <i>Nanoscale Advances</i> , 2021, 3, 4400-4410.	2.2	10
50	Chromatographic property classification of narrowly distributed ZnS quantum dots. <i>Nanoscale</i> , 2020, 12, 12114-12125.	2.8	10
51	Ultrastable photodegradation of formaldehyde under fluorescent lamp irradiation by anti-reflection structure SnS <sub>2</sub> /TiO <sub>2</sub> composite. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2018, 364, 725-731.	2.0	9
52	Extension of the Deep UV Capabilities in Multiwavelength Spectrometry in Analytical Ultracentrifugation: The Role of Oil Deposits. <i>Particle and Particle Systems Characterization</i> , 2016, 33, 184-189.	1.2	8
53	Choosing the right nanoparticle size – designing novel ZnO electrode architectures for efficient dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 7516-7522.	5.2	8
54	Influence of Tail Groups during Functionalization of ZnO Nanoparticles on Binding Enthalpies and Photoluminescence. <i>Langmuir</i> , 2017, 33, 13581-13589.	1.6	8

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55	The effect of mixing on silver particle morphology in flow synthesis. <i>Chemical Engineering Science</i> , 2018, 192, 254-263.	1.9	8
56	Model-Based Optimization of Ripening Processes with Feedback Modules. <i>Chemical Engineering and Technology</i> , 2020, 43, 896-903.	0.9	7
57	Effects of filter structure, flow velocity, particle concentration and fouling on the retention efficiency of ultrafiltration for sub-20Ånm gold nanoparticles. <i>Separation and Purification Technology</i> , 2020, 241, 116689.	3.9	7
58	Spectra Library: An Assumption-Free In Situ Method to Access the Kinetics of Catechols Binding to Colloidal ZnO Quantum Dots. <i>Angewandte Chemie</i> , 2016, 128, 944-947.	1.6	6
59	Quantifying Surface Properties of Silica Particles by Combining Hansen Parameters and Reichardt's Dye Indicator Data. <i>Particle and Particle Systems Characterization</i> , 2018, 35, 1800328.	1.2	6
60	Scalable classification of nanoparticles: A proof of principle for process design. <i>Advanced Powder Technology</i> , 2019, 30, 2801-2811.	2.0	6
61	Microstructure characteristics of non-monodisperse quantum dots: on the potential of transmission electron microscopy combined with X-ray diffraction. <i>CrystEngComm</i> , 2020, 22, 3644-3655.	1.3	6
62	Synthesis of silver nanoparticles in melts of amphiphilic polyesters. <i>Nanotechnology</i> , 2013, 24, 115604.	1.3	4
63	On the mechanism of ZnO-acetate precursors ripening to ZnO: How dimerization is promoted by hydroxide incorporation. <i>Journal of Chemical Physics</i> , 2015, 143, 064501.	1.2	4
64	Cleaning Matters!. <i>ACS Combinatorial Science</i> , 2019, 21, 722-725.	3.8	3
65	Unraveling Complexity: A Strategy for the Characterization of Anisotropic Core Multishell Nanoparticles. <i>Particle and Particle Systems Characterization</i> , 2020, 37, 2000145.	1.2	3
66	Simultane Bestimmung spektraler Eigenschaften und Größen von multiplen Partikeln in Lösung mit Subnanometer-Auflösung. <i>Angewandte Chemie</i> , 2016, 128, 11944-11949.	1.6	2
67	Tailoring of Electrocatalyst Inks for Performance Enhancement in Proton Exchange Membrane Fuel Cells. <i>ECS Transactions</i> , 2020, 97, 651-657.	0.3	2
68	Robust optimization in nanoparticle technology: A proof of principle by quantum dot growth in a residence time reactor. <i>Computers and Chemical Engineering</i> , 2022, 157, 107618.	2.0	2
69	From In Situ Characterization to Process Control of Quantum Dot Systems. <i>Procedia Engineering</i> , 2015, 102, 575-581.	1.2	1
70	Analysis of Colloidal Interactions by Means of Sedimentation Analysis and their Use during Ultrafiltration. <i>Chemie-Ingenieur-Technik</i> , 2015, 87, 1089-1089.	0.4	0
71	Classification of Nanoparticles by Size-Selective Precipitation: The Role of Solubility Parameters. <i>Chemie-Ingenieur-Technik</i> , 2016, 88, 1299-1299.	0.4	0
72	On the defect structures and associated diffraction phenomena in Au nanoparticles. <i>Microscopy and Microanalysis</i> , 2021, 27, 1746-1746.	0.2	0

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73	Modeling, Simulation and Optimization of Process Chains. , 2020, , 549-578.		0
74	Flowsheet Simulation of Integrated Precipitation Processes. , 2020, , 269-304.		0
75	Tailored SiNx-based Anode Processing for Li-Ion Batteries. ECS Transactions, 2020, 97, 185-193.	0.3	0