Cathrine Frandsen

List of Publications by Year
in descending order

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69 papers	4,018 citations	136950 32 h-index	118850 62 g-index
72 all docs	72 docs citations	72 times ranked	6274 citing authors

#	Article	IF	Citations
1	Prenormative verification and validation of a protocol for measuring magnetiteâ€“maghemite ratios in magnetic nanoparticles. Metrologia, 2022, 59, 015001.	1.2	8
2	Order and Disorder in Layered Double Hydroxides: Lessons Learned from the Green Rust Sulfateâ”€Nikischerite Series. ACS Earth and Space Chemistry, 2022, 6, 322-332.	2.7	3
3	Simulated clustering dynamics of colloidal magnetic nanoparticles. Nanoscale, 2021, 13, 1970-1981.	5.6	16
4	Electrified methane reforming: Elucidating transient phenomena. Chemical Engineering Journal, 2021, 425, 131509.	12.7	38
5	Optimized CoNi Nanoparticle Composition for Curie-Temperature-Controlled Induction-Heated Catalysis. ACS Applied Nano Materials, 2021, 4, 11537-11544.	5.0	14
6	Improving performance of induction-heated steam methane reforming. Catalysis Today, 2020, 342, 13-20.	4.4	47
7	1.04 Magnetic Nanoparticles. , 2019, , 89-140.		8
8	Electrified methane reforming: A compact approach to greener industrial hydrogen production. Science, 2019, 364, 756-759.	12.6	299
9	Enhanced intrinsic saturation magnetization of Zn_xCo_{1â^'x}Fe₂O₄ nanocrystallites with metastable spinel inversion. Materials Chemistry Frontiers, 2019, 3, 668-679.	5.9	29
10	Electrified Methane Reforming: Understanding the Dynamic Interplay. Industrial & Engineering Chemistry Research, 2019, 58, 23380-23388.	3.7	53
11	Modelling the effect of different core sizes and magnetic interactions inside magnetic nanoparticles on hyperthermia performance. Journal of Magnetism and Magnetic Materials, 2019, 477, 198-202.	2.3	30
12	Relating Magnetic Properties and High Hyperthermia Performance of Iron Oxide Nanoflowers. Journal of Physical Chemistry C, 2018, 122, 3068-3077.	3.1	107
13	On the interpretation of MÃ¶ssbauer spectra of magnetic nanoparticles. Journal of Magnetism and Magnetic Materials, 2018, 445, 11-21.	2.3	36
14	57Fe-MÃ¶ssbauer spectroscopy and electrochemical activities of graphitic layer encapsulated iron electrocatalysts for the oxygen reduction reaction. Applied Catalysis B: Environmental, 2018, 221, 406-412.	20.2	61
15	Directing a Nonâ€Heme Iron(III)â€Hydroperoxide Species on a Trifurcated Reactivity Pathway. Chemistry - A European Journal, 2018, 24, 5134-5145.	3.3	20
16	Photoinduced O₂-Dependent Stepwise Oxidative Deglycination of a Nonheme Iron(III) Complex. Journal of the American Chemical Society, 2018, 140, 14150-14160.	13.7	11
17	Dualâ€Function Cobaltâ€“Nickel Nanoparticles Tailored for Highâ€Temperature Inductionâ€Heated Steam Methane Reforming. Angewandte Chemie, 2018, 130, 10729-10733.	2.0	34
18	Dualâ€Function Cobaltâ€“Nickel Nanoparticles Tailored for Highâ€Temperature Inductionâ€Heated Steam Methane Reforming. Angewandte Chemie - International Edition, 2018, 57, 10569-10573.	13.8	75

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19	On the â€˜centre of gravityâ€™ method for measuring the composition of magnetite/maghemite mixtures, or the stoichiometry of magnetite-maghemite solid solutions, via⁵⁷Fe MÃ¶ssbauer spectroscopy. Journal Physics D: Applied Physics, 2017, 50, 265005.	2.8	75
20	Glycine buffered synthesis of layered iron(II)-iron(III) hydroxides (green rusts). Journal of Colloid and Interface Science, 2017, 497, 429-438.	9.4	41
21	Formation Mechanism of Maghemite Nanoflowers Synthesized by a Polyol-Mediated Process. ACS Omega, 2017, 2, 7172-7184.	3.5	82
22	Off-axis spin orientation in goethite nanoparticles. Physical Review B, 2017, 96, .	3.2	4
23	Spin orientation in solid solution hematite-ilmenite. American Mineralogist, 2017, 102, 1234-1243.	1.9	11
24	Magnetic dipolar ordering and hysteresis of geometrically defined nanoparticle clusters. Journal of Applied Physics, 2017, 122, 133902.	2.5	5
25	Colloidal Flowerâ€Shaped Iron Oxide Nanoparticles: Synthesis Strategies and Coatings. Particle and Particle Systems Characterization, 2017, 34, 1700094.	2.3	71
26	Effect of carbon on interstitial ordering and magnetic properties of Îµ-Fe2(N,C)1-. Journal of Alloys and Compounds, 2017, 694, 282-291.	5.5	3
27	Induced Mesocrystal-Formation, Hydrothermal Growth and Magnetic Properties of Î±-Fe2O3 Nanoparticles in Salt-Rich Aqueous Solutions. Crystals, 2017, 7, 248.	2.2	3
28	Halogenâ€Bondingâ€Assisted Iodosylbenzene Activation by a Homogenous Iron Catalyst. Chemistry - A European Journal, 2016, 22, 3810-3820.	3.3	38
29	Direct observation of the thermal demagnetization of magnetic vortex structures in nonideal magnetite recorders. Geophysical Research Letters, 2016, 43, 8426-8434.	4.0	31
30	Uncertainty budget for determinations of mean isomer shift from MÃ¶ssbauer spectra. Hyperfine Interactions, 2016, 237, 1.	0.5	12
31	Composition-dependent variation of magnetic properties and interstitial ordering in homogeneous expanded austenite. Acta Materialia, 2016, 106, 32-39.	7.9	35
32	Precipitation pathways for ferrihydrite formation in acidic solutions. Geochimica Et Cosmochimica Acta, 2016, 172, 247-264.	3.9	67
33	Effect of maghemization on the magnetic properties of nonstoichiometric pseudoâ€singleâ€domain magnetite particles. Geochemistry, Geophysics, Geosystems, 2015, 16, 2969-2979.	2.5	12
34	Longitudinal domain wall formation in elongated assemblies of ferromagnetic nanoparticles. Scientific Reports, 2015, 5, 14536.	3.3	10
35	Reversible Guest Binding in a Nonâ€Porous Fe^{II} Coordination Polymer Host Toggles Spin Crossover. Chemistry - A European Journal, 2015, 21, 16066-16072.	3.3	41
36	In Situ Studies of Fe⁴⁺Stability inÎ²-Li₃Fe₂(PO₄)₃Cathodes for Li Ion Batteries. Journal of the Electrochemical Society, 2015, 162, A531-A537.	2.9	13

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37	Polarized neutron powder diffraction studies of antiferromagnetic order in bulk and nanoparticle NiO. Physical Review B, 2015, 91, .	3.2	13
38	Formation and transformation of a short range ordered iron carbonate precursor. Geochimica Et Cosmochimica Acta, 2015, 164, 94-109.	3.9	39
39	Anomalous Particle Size Dependence of Magnetic Relaxation Phenomena in Goethite Nanoparticles. Croatica Chemica Acta, 2015, 88, 481-485.	0.4	5
40	Magnetic, Structural, and Particle Size Analysis of Single- and Multi-Core Magnetic Nanoparticles. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	13
41	Aggregation-induced growth and transformation of Î²-FeOOH nanorods to micron-sized Î±-Fe₂O₃spindles. CrystEngComm, 2014, 16, 1451-1458.	2.6	93
42	Crystal structure and magnetism of Fe₂(OH)[B₂O₄(OH)]. Journal of Physics Condensed Matter, 2014, 26, 266002.	1.8	0
43	Investigating Processes of Nanocrystal Formation and Transformation via Liquid Cell TEM. Microscopy and Microanalysis, 2014, 20, 425-436.	0.4	94
44	Ultrafast electron and energy transfer in dye-sensitized iron oxide and oxyhydroxide nanoparticles. Physical Chemistry Chemical Physics, 2013, 15, 17303.	2.8	16
45	In Situ Structural Characterization of Ferric Iron Dimers in Aqueous Solutions: Identification of Î¼-Oxo Species. Inorganic Chemistry, 2013, 52, 6788-6797.	4.0	51
46	Spin Structures in Magnetic Nanoparticles. Journal of Nanomaterials, 2013, 2013, 1-8.	2.7	57
47	Electron Small Polarons and Their Mobility in Iron (Oxyhydr)oxide Nanoparticles. Science, 2012, 337, 1200-1203.	12.6	166
48	Temperature dependence of the magnetization of canted spin structures. Journal of Magnetism and Magnetic Materials, 2012, 324, 3218-3222.	2.3	11
49	Influence of cation disorder on the magnetic properties of ball-milled ilmenite (FeTiO3). Materials Chemistry and Physics, 2012, 136, 184-189.	4.0	4
50	An aqueous non-heme Fe(iv)oxo complex with a basic group in the second coordination sphere. Chemical Communications, 2012, 48, 10880.	4.1	30
51	Direction-Specific Interactions Control Crystal Growth by Oriented Attachment. Science, 2012, 336, 1014-1018.	12.6	958
52	Spin reorientation inÎ±-Fe2O3nanoparticles induced by interparticle exchange interactions inÎ±-Fe2O3/NiO nanocomposites. Physical Review B, 2011, 84, .	3.2	12
53	Uniform excitations in magnetic nanoparticles. Beilstein Journal of Nanotechnology, 2010, 1, 48-54.	2.8	43
54	Magnetic clusters in ilmenite-hematite solid solutions. Physical Review B, 2010, 81, .	3.2	18

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55	Magnetic interactions between nanoparticles. Beilstein Journal of Nanotechnology, 2010, 1, 182-190.	2.8	299
56	Composition and structure of an iron-bearing, layered double hydroxide (LDH) â€“ Green rust sodium sulphate. Geochimica Et Cosmochimica Acta, 2009, 73, 3579-3592.	3.9	89
57	Experimental and theoretical studies of nanoparticles of antiferromagnetic materials. Journal of Physics Condensed Matter, 2007, 19, 213202.	1.8	163
58	Magnetic phases in hemo-ilmenite: Insight from low-velocity and high-field MÃ¶ssbauer spectroscopy. Geophysical Research Letters, 2007, 34, .	4.0	6
59	Correction to â€œMagnetic phases in hemo-ilmenite: Insight from low-velocity and high-field MÃ¶ssbauer spectroscopyâ€• Geophysical Research Letters, 2007, 34, .	4.0	5
60	Magnetization of exsolution intergrowths of hematite and ilmenite: Mineral chemistry, phase relations, and magnetic properties of hemoâ€ilmenite ores with micronâ€•to nanometerâ€scale lamellae from Allard Lake, Quebec. Journal of Geophysical Research, 2007, 112, .	3.3	49
61	Reversible aggregation and magnetic coupling of Î±-Fe2O3nanoparticles. Journal of Physics Condensed Matter, 2006, 18, 7079-7084.	1.8	13
62	MÃ¸rup and Frandsen Reply:. Physical Review Letters, 2005, 94, .	7.8	6
63	MÃ¸rup and Frandsen Reply:. Physical Review Letters, 2005, 94, .	7.8	6
64	Spin Rotation inÎ±â^'Fe2O3Nanoparticles by Interparticle Interactions. Physical Review Letters, 2005, 94, 027202.	7.8	81
65	A MÃ¶ssbauer study of the magnetization of Â-Fe2O3nanoparticles in applied fields: the influence of interaction with CoO. Journal of Physics Condensed Matter, 2004, 16, 6977-6981.	1.8	7
66	Interparticle interactions in agglomerates of Î±-Fe2O3 nanoparticles: influence of grinding. Journal of Colloid and Interface Science, 2004, 279, 132-136.	9.4	26
67	Thermoinduced Magnetization in Nanoparticles of Antiferromagnetic Materials. Physical Review Letters, 2004, 92, 217201.	7.8	104
68	Inter-particle interactions in composites of antiferromagnetic nanoparticles. Journal of Magnetism and Magnetic Materials, 2003, 266, 36-48.	2.3	52
69	Magnetic Properties of Nanoparticles of Antiferromagnetic Materials. Hyperfine Interactions, 2002, 144/145, 347-357.	0.5	45