RafaÅ, Pelka

List of Publications by Year
in descending order

38 papers	490 citations	686830 13 h-index	676716 22 g-index
38 all docs	38 docs citations	38 times ranked	424 citing authors

#	Article	IF	Citations
1	Oscillatory Mechanism of Î±-Fe(N) â†” Î³â€™-Fe4N Phase Transformations during Nanocrystalline Iron Nitriding. Materials, 2022, 15, 1006.	1.3	2
2	Application of TOF-SIMS Method in the Study of Wetting the Iron (111) Surface with Promoter Oxides. Molecules, 2022, 27, 648.	1.7	0
3	Study of Phase Transformation Processes Occurring in the Nanocrystalline Iron/Ammonia/Hydrogen System by the Magnetic Permeability Measurement Method. Journal of Physical Chemistry C, 2022, 126, 7704-7710.	1.5	5
4	Study of Phase Transitions Occurring in a Catalytic System of ncFe-NH3/H2 with Chemical Potential Programmed Reaction (CPPR) Method Coupled with In Situ XRD. Catalysts, 2021, 11, 183.	1.6	1
5	Reaction Model Taking into Account the Catalyst Morphology and Its Active Specific Surface in the Process of Catalytic Ammonia Decomposition. Materials, 2021, 14, 7229.	1.3	3
6	Studies of phase transitions occurring in the system of nanocrystalline Fe/NH3/H2. Materials Chemistry and Physics, 2019, 237, 121853.	2.0	5
7	Study of the Iron Catalyst for Ammonia Synthesis by Chemical Potential Programmed Reaction Method. Journal of Physical Chemistry C, 2017, 121, 8548-8556.	1.5	16
8	Oscillatory Kinetics in the Process of Reduction of Nanocrystalline Iron Nitride Î³â€²-Fe4N. Journal of Physical Chemistry C, 2017, 121, 14712-14716.	1.5	4
9	Studies of magnetic properties of nanocrystalline iron of different sizes of nanocrystallites. Journal of Magnetism and Magnetic Materials, 2017, 443, 324-333.	1.0	5
10	A method of determining nanoparticle size distribution in iron ammonia synthesis catalyst by measuring mass changes during the nitriding process. Catalysis Today, 2017, 286, 118-123.	2.2	8
11	Adsorption of Ni²⁺from aqueous solution by magnetic Fe@graphite nano-composite. Polish Journal of Chemical Technology, 2016, 18, 96-103.	0.3	5
12	FMR study of samples obtained by nitriding and nitrides reduction of nanocrystalline iron. Materials Science-Poland, 2016, 34, 6-12.	0.4	1
13	Size-Dependent Transformation of Î±-Fe into Î³â€²-Fe₄N in Nanocrystalline the Feâ€“NH₃â€“H₂ System. Journal of Physical Chemistry C, 2016, 120, 17989-17995.	1.5	14
14	Hysteresis phenomenon in a reaction system of nanocrystalline iron and a mixture of ammonia and hydrogen. Physical Chemistry Chemical Physics, 2016, 18, 25796-25800.	1.3	15
15	Magnetic characterization of nanocrystalline iron samples with different size distributions. Materials Science-Poland, 2014, 32, 423-429.	0.4	1
16	Characterization of FeCo based catalyst for ammonia decomposition. The effect of potassium oxide. Polish Journal of Chemical Technology, 2014, 16, 111-116.	0.3	5
17	Extended Surface of Materials as a Result of Chemical Equilibrium. Journal of Nanomaterials, 2014, 2014, 1-5.	1.5	7
18	Catalytic Ammonia Decomposition during Nanocrystalline Iron Nitriding at 475 Â°C with NH₃/H₂ Mixtures of Different Nitriding Potentials. Journal of Physical Chemistry C, 2014, 118, 6178-6185.	1.5	30

#	Article	IF	Citations
19	A New Method for Determining the Nanocrystallite Size Distribution in Systems Where Chemical Reaction between Solid and a Gas Phase Occurs. Journal of Nanomaterials, 2013, 2013, 1-6.	1.5	13
20	The Temperature Effect on Iron Nanocrystallites Size Distribution. Current Nanoscience, 2013, 9, 711-716.	0.7	5
21	Influence of chemical composition of nanocrystalline ironâ€™s surface on the rates of two parallel reactions: nitriding and catalytic decomposition of ammonia. Chemical Papers, 2012, 66, .	1.0	5
22	The effect of iron nanocrystallitesâ€™ size in catalysts for ammonia synthesis on nitriding reaction and catalytic ammonia decomposition. Open Chemistry, 2011, 9, 240-244.	1.0	16
23	Modelling of nanocrystalline iron nitriding process â€" influence of specific surface area. Chemical Papers, 2011, 65, .	1.0	10
24	Measurements of the relative number of active sites on iron catalyst for ammonia synthesis by hydrogen desorption. Catalysis Today, 2011, 169, 97-101.	2.2	13
25	Studies of the Kinetics of Ammonia Decomposition on Promoted Nanocrystalline Iron Using Gas Phases of Different Nitriding Degree. Journal of Physical Chemistry A, 2010, 114, 4531-4534.	1.1	40
26	Catalytic Ammonia Decomposition Over Fe/Fe4N. Catalysis Letters, 2009, 128, 72-76.	1.4	67
27	Study of the Kinetics of Ammonia Synthesis and Decomposition on Iron and Cobalt Catalysts. Catalysis Letters, 2009, 129, 119-123.	1.4	49
28	Studies of the Kinetics of Reaction Between Iron Catalysts and Ammoniaâ€"Nitriding of Nanocrystalline Iron with Parallel Catalytic Ammonia Decomposition. Topics in Catalysis, 2009, 52, 1506-1516.	1.3	37
29	Investigation of the temperature changes of the divided recirculation stream on the dynamics of the tubular reactor cascade. Chaos, Solitons and Fractals, 2009, 40, 1680-1687.	2.5	2
30	Studies of the Kinetics of Two Parallel Reactions: Ammonia Decomposition and Nitriding of Iron Catalyst. Journal of Physical Chemistry A, 2009, 113, 411-416.	1.1	38
31	Study of the kinetics of carburisation and nitriding of nanocrystalline iron. Journal of Physics: Conference Series, 2009, 146, 012008.	0.3	0
32	The possibility of implementation of spent iron catalyst for ammonia synthesis. Polish Journal of Chemical Technology, 2009, 11, 28-33.	0.3	3
33	Studies of the Oxidation of Nanocrystalline Iron with Oxygen by means of TG, MS, and XRD Methods. Journal of Physical Chemistry C, 2008, 112, 13992-13996.	1.5	6
34	Utilization of spent iron catalyst for ammonia synthesis. Polish Journal of Chemical Technology, 2007, 9, 108-113.	0.3	1
35	Poisoning of iron catalyst by sulfur. Catalysis Today, 2007, 124, 43-48.	2.2	35
36	Numerical analysis of behaviour of tubular reactors with different residence time and variable division of the recirculation stream. Chaos, Solitons and Fractals, 2007, 33, 1204-1212.	2.5	1

#	Article	IF	Citations
37	Chaotic dynamics of a cascade of plug flow tubular reactors (PFTRs) with division of recirculating stream. Chaos, Solitons and Fractals, 2005, 23, 1211-1219.	2.5	12
38	Chaotic dynamics of a cascade of plug flow tubular reactors (PFTRs) with division of recirculating stream. Chaos, Solitons and Fractals, 2005, 23, 1211-1219.	2.5	10