Rafal Pelka

List of Publications by Citations

34 papers	384 citations	11 h-index	18 g-index
37 ext. papers	429 ext. citations	3.3 avg, IF	3.63 L-index

#	Paper	IF	Citations
34	Catalytic Ammonia Decomposition Over Fe/Fe4N. *Catalysis Letters*, **2009**, 128, 72-76	2.8	58
33	Study of the Kinetics of Ammonia Synthesis and Decomposition on Iron and Cobalt Catalysts. *Catalysis Letters*, **2009**, 129, 119-123	2.8	40
32	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, 4531-4	2.8	33
31	Studies of the kinetics of two parallel reactions: ammonia decomposition and nitriding of iron catalyst. *Journal of Physical Chemistry A*, **2009**, 113, 411-6	2.8	33
30	Studies of the Kinetics of Reaction Between Iron Catalysts and Ammonia. Nitriding of Nanocrystalline Iron with Parallel Catalytic Ammonia Decomposition. *Topics in Catalysis*, **2009**, 52, 1506-1516	2.3	32
29	Poisoning of iron catalyst by sulfur. *Catalysis Today*, **2007**, 124, 43-48	5.3	29
28	Catalytic Ammonia Decomposition during Nanocrystalline Iron Nitriding at 475 °C with NH3/H2 Mixtures of Different Nitriding Potentials. *Journal of Physical Chemistry C*, **2014**, 118, 6178-6185	3.8	25
27	The effect of iron nanocrystallites size in catalysts for ammonia synthesis on nitriding reaction and catalytic ammonia decomposition. *Open Chemistry*, **2011**, 9, 240-244	1.6	14
26	Hysteresis phenomenon in a reaction system of nanocrystalline iron and a mixture of ammonia and hydrogen. *Physical Chemistry Chemical Physics*, **2016**, 18, 25796-25800	3.6	11
25	Measurements of the relative number of active sites on iron catalyst for ammonia synthesis by hydrogen desorption. *Catalysis Today*, **2011**, 169, 97-101	5.3	11
24	Chaotic dynamics of a cascade of plug flow tubular reactors (PFTRs) with division of recirculating stream. *Chaos, Solitons and Fractals*, **2005**, 23, 1211-1219	9.3	11
23	Study of the Iron Catalyst for Ammonia Synthesis by Chemical Potential Programmed Reaction Method. *Journal of Physical Chemistry C*, **2017**, 121, 8548-8556	3.8	10
22	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	3.2	9
21	Size-Dependent Transformation of α-Fe into ε'-Fe4N in Nanocrystalline the Fe–NH3–H2 System. *Journal of Physical Chemistry C*, **2016**, 120, 17989-17995	3.8	8
20	Modelling of nanocrystalline iron nitriding process – influence of specific surface area. *Chemical Papers*, **2011**, 65,	1.9	8
19	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	3.8	6
18	Studies of magnetic properties of nanocrystalline iron of different sizes of nanocrystallites. *Journal of Magnetism and Magnetic Materials*, **2017**, 443, 324-333	2.8	5

17	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	5.3	5
16	Extended Surface of Materials as a Result of Chemical Equilibrium. *Journal of Nanomaterials*, **2014**, 2014, 1-5	3.2	5
15	Influence of chemical composition of nanocrystalline iron surface on the rates of two parallel reactions: nitriding and catalytic decomposition of ammonia. *Chemical Papers*, **2012**, 66,	1.9	5
14	Characterization of FeCo based catalyst for ammonia decomposition. The effect of potassium oxide. *Polish Journal of Chemical Technology*, **2014**, 16, 111-116	1	4
13	The Temperature Effect on Iron Nanocrystallites Size Distribution. *Current Nanoscience*, **2013**, 9, 711-716	1.4	4
12	Adsorption of Ni2+ from aqueous solution by magnetic Fe@graphite nano-composite. *Polish Journal of Chemical Technology*, **2016**, 18, 96-103	1	4
11	Studies of phase transitions occurring in the system of nanocrystalline Fe/NH3/H2. *Materials Chemistry and Physics*, **2019**, 237, 121853	4.4	3
10	Oscillatory Kinetics in the Process of Reduction of Nanocrystalline Iron Nitride ε-Fe4N. *Journal of Physical Chemistry C*, **2017**, 121, 14712-14716	3.8	3
9	The possibility of implementation of spent iron catalyst for ammonia synthesis. *Polish Journal of Chemical Technology*, **2009**, 11, 28-33	1	3
8	Magnetic characterization of nanocrystalline iron samples with different size distributions. *Materials Science-Poland*, **2014**, 32, 423-429	0.6	1
7	Study of the kinetics of carburisation and nitriding of nanocrystalline iron. *Journal of Physics: Conference Series*, **2009**, 146, 012008	0.3	1
6	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	9.3	1
5	Utilization of spent iron catalyst for ammonia synthesis. *Polish Journal of Chemical Technology*, **2007**, 9, 108-113	1	1
4	FMR study of samples obtained by nitriding and nitrides reduction of nanocrystalline iron. *Materials Science-Poland*, **2016**, 34, 6-12	0.6	1
3	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	9.3	0
2	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	4	0
1	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	3.8	0