

# Rafal Pelka

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Study of Phase Transformation Processes Occurring in the Nanocrystalline Iron/Ammonia/Hydrogen System by the Magnetic Permeability Measurement Method. <i>Journal of Physical Chemistry C</i> , <b>2022</b> , 126, 7704-7710	3.8	0
33	Study of Phase Transitions Occurring in a Catalytic System of ncFe-NH <sub>3</sub> /H <sub>2</sub> with Chemical Potential Programmed Reaction (CPPR) Method Coupled with In Situ XRD. <i>Catalysts</i> , <b>2021</b> , 11, 183	4	0
32	Studies of phase transitions occurring in the system of nanocrystalline Fe/NH <sub>3</sub> /H <sub>2</sub> . <i>Materials Chemistry and Physics</i> , <b>2019</b> , 237, 121853	4.4	3
31	Study of the Iron Catalyst for Ammonia Synthesis by Chemical Potential Programmed Reaction Method. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 8548-8556	3.8	10
30	Oscillatory Kinetics in the Process of Reduction of Nanocrystalline Iron Nitride $\alpha$ -Fe <sub>4</sub> N. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 14712-14716	3.8	3
29	Studies of magnetic properties of nanocrystalline iron of different sizes of nanocrystallites. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2017</b> , 443, 324-333	2.8	5
28	A method of determining nanoparticle size distribution in iron ammonia synthesis catalyst by measuring mass changes during the nitriding process. <i>Catalysis Today</i> , <b>2017</b> , 286, 118-123	5.3	5
27	Size-Dependent Transformation of $\alpha$ -Fe into $\alpha$ -Fe <sub>4</sub> N in Nanocrystalline the Fe-NH <sub>3</sub> -H <sub>2</sub> System. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 17989-17995	3.8	8
26	Hysteresis phenomenon in a reaction system of nanocrystalline iron and a mixture of ammonia and hydrogen. <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 25796-25800	3.6	11
25	Adsorption of Ni <sup>2+</sup> from aqueous solution by magnetic Fe@graphite nano-composite. <i>Polish Journal of Chemical Technology</i> , <b>2016</b> , 18, 96-103	1	4
24	FMR study of samples obtained by nitriding and nitrides reduction of nanocrystalline iron. <i>Materials Science-Poland</i> , <b>2016</b> , 34, 6-12	0.6	1
23	Catalytic Ammonia Decomposition during Nanocrystalline Iron Nitriding at 475 °C with NH <sub>3</sub> /H <sub>2</sub> Mixtures of Different Nitriding Potentials. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 6178-6185	3.8	25
22	Magnetic characterization of nanocrystalline iron samples with different size distributions. <i>Materials Science-Poland</i> , <b>2014</b> , 32, 423-429	0.6	1
21	Characterization of FeCo based catalyst for ammonia decomposition. The effect of potassium oxide. <i>Polish Journal of Chemical Technology</i> , <b>2014</b> , 16, 111-116	1	4
20	Extended Surface of Materials as a Result of Chemical Equilibrium. <i>Journal of Nanomaterials</i> , <b>2014</b> , 2014, 1-5	3.2	5
19	A New Method for Determining the Nanocrystallite Size Distribution in Systems Where Chemical Reaction between Solid and a Gas Phase Occurs. <i>Journal of Nanomaterials</i> , <b>2013</b> , 2013, 1-6	3.2	9
18	The Temperature Effect on Iron Nanocrystallites Size Distribution. <i>Current Nanoscience</i> , <b>2013</b> , 9, 711-716	1.4	4

17	Influence of chemical composition of nanocrystalline iron surface on the rates of two parallel reactions: nitriding and catalytic decomposition of ammonia. <i>Chemical Papers</i> , <b>2012</b> , 66,	1.9	5
16	The effect of iron nanocrystallites size in catalysts for ammonia synthesis on nitriding reaction and catalytic ammonia decomposition. <i>Open Chemistry</i> , <b>2011</b> , 9, 240-244	1.6	14
15	Modelling of nanocrystalline iron nitriding process – Influence of specific surface area. <i>Chemical Papers</i> , <b>2011</b> , 65,	1.9	8
14	Measurements of the relative number of active sites on iron catalyst for ammonia synthesis by hydrogen desorption. <i>Catalysis Today</i> , <b>2011</b> , 169, 97-101	5.3	11
13	Studies of the kinetics of ammonia decomposition on promoted nanocrystalline iron using gas phases of different nitriding degree. <i>Journal of Physical Chemistry A</i> , <b>2010</b> , 114, 4531-4	2.8	33
12	Catalytic Ammonia Decomposition Over Fe/Fe <sub>4</sub> N. <i>Catalysis Letters</i> , <b>2009</b> , 128, 72-76	2.8	58
11	Study of the Kinetics of Ammonia Synthesis and Decomposition on Iron and Cobalt Catalysts. <i>Catalysis Letters</i> , <b>2009</b> , 129, 119-123	2.8	40
10	Studies of the Kinetics of Reaction Between Iron Catalysts and Ammonia – Nitriding of Nanocrystalline Iron with Parallel Catalytic Ammonia Decomposition. <i>Topics in Catalysis</i> , <b>2009</b> , 52, 1506-1516	2.3	32
9	Investigation of the temperature changes of the divided recirculation stream on the dynamics of the tubular reactor cascade. <i>Chaos, Solitons and Fractals</i> , <b>2009</b> , 40, 1680-1687	9.3	0
8	Studies of the kinetics of two parallel reactions: ammonia decomposition and nitriding of iron catalyst. <i>Journal of Physical Chemistry A</i> , <b>2009</b> , 113, 411-6	2.8	33
7	Study of the kinetics of carburisation and nitriding of nanocrystalline iron. <i>Journal of Physics: Conference Series</i> , <b>2009</b> , 146, 012008	0.3	1
6	The possibility of implementation of spent iron catalyst for ammonia synthesis. <i>Polish Journal of Chemical Technology</i> , <b>2009</b> , 11, 28-33	1	3
5	Studies of the Oxidation of Nanocrystalline Iron with Oxygen by means of TG, MS, and XRD Methods. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 13992-13996	3.8	6
4	Poisoning of iron catalyst by sulfur. <i>Catalysis Today</i> , <b>2007</b> , 124, 43-48	5.3	29
3	Numerical analysis of behaviour of tubular reactors with different residence time and variable division of the recirculation stream. <i>Chaos, Solitons and Fractals</i> , <b>2007</b> , 33, 1204-1212	9.3	1
2	Utilization of spent iron catalyst for ammonia synthesis. <i>Polish Journal of Chemical Technology</i> , <b>2007</b> , 9, 108-113	1	1
1	Chaotic dynamics of a cascade of plug flow tubular reactors (PFTRs) with division of recirculating stream. <i>Chaos, Solitons and Fractals</i> , <b>2005</b> , 23, 1211-1219	9.3	11