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Ammonia and related chemicals as potential indirect hydrogen storage materials

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729	Transition metal-catalyzed dehydrogenation of hydrazine borane N <sub>2</sub> H <sub>4</sub> BH <sub>3</sub> via the hydrolysis of BH <sub>3</sub> and the decomposition of N <sub>2</sub> H <sub>4</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 10758-10767	6.7	37
728	The effect of ammonia upon the electrocatalysis of hydrogen oxidation and oxygen reduction on polycrystalline platinum. <b>2012</b> , 220, 205-210		22
727	Resolving the stability and structure of strontium chloride amines from equilibrium pressures, XRD and DFT. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 18927-18936	6.7	32
726	Ammonia as a Hydrogen Source for Fuel Cells: A Review. <b>2012</b> ,		16
725	Ammonia Uptake and Release in the MnX <sub>2</sub> ·nNH <sub>3</sub> (X = Cl, Br) Systems and Structure of the Mn(NH <sub>3</sub> ) <sub>n</sub> X <sub>2</sub> (n = 6, 2) Ammines. <b>2012</b> , 2, 193-212		20
724	An overview of the kinetics and catalysis of hydrogen storage on organic liquids. <b>2013</b> , 91, 1477-1490		43
723	Study of the electrochemical oxidation of ammonia on platinum in alkaline solution: Effect of electrodeposition potential on the activity of platinum. <b>2013</b> , 691, 18-27		36
722	NH <sub>3</sub> /Ir(100): Electronic structure and dehydrogenation. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 2965-2972	6.7	13
721	Catalytic amine-borane dehydrogenation by a PCP-pincer palladium complex: a combined experimental and DFT analysis of the reaction mechanism. <b>2013</b> , 42, 3533-41		37
720	Hydrolysis of ammonia-borane catalyzed by an iron-nickel alloy on an SBA-15 support. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 4636-4647	6.7	23
719	Review of electrochemical ammonia production technologies and materials. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 14576-14594	6.7	418
718	Decomposition of ammonia by atmospheric pressure AC discharge: Catalytic effect of the electrodes. <b>2013</b> , 211, 72-77		6
717	Reactor technology options for distributed hydrogen generation via ammonia decomposition: A review. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 14968-14991	6.7	73
716	Electrochemical synthesis of ammonia directly from air and water using a Li <sup>+</sup> /H <sup>+</sup> /NH <sub>4</sub> <sup>+</sup> mixed conducting electrolyte. <b>2013</b> , 3, 18016		86
715	Plasma driven ammonia decomposition on a Fe-catalyst: eliminating surface nitrogen poisoning. <b>2013</b> , 49, 3787-9		68
714	Formation of open-ended nickel hydroxide nanotubes on three-dimensional nickel framework for enhanced urea electrolysis. <b>2013</b> , 29, 21-24		80
713	Recent advances in electrocatalysts for electro-oxidation of ammonia. <b>2013</b> , 1, 3216-3238		107

712	Analysis of the behaviour of a 4-stroke Si engine fuelled with ammonia and hydrogen. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 1607-1615	6.7	112
711	Phase polymorphism of novel [Ru(NH3)6](ClO4)3 comparison with [Ru(NH3)6](BF4)3. Part II. <b>2013</b> , 204, 233-244		2
710	Metal-decorated graphene oxide for ammonia adsorption. <b>2013</b> , 103, 28007		14
709	Synthesis of ammonia directly from air and water at ambient temperature and pressure. <b>2013</b> , 3, 1145		277
708	Developing more sustainable processes for ammonia synthesis. <b>2013</b> , 257, 2551-2564		255
707	A bottom-up approach to prepare cobalt-based bimetallic supported catalysts for hydrolysis of ammonia borane. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 5627-5637	6.7	23
706	Proton-Conducting Materials as Electrolytes for Solid Oxide Fuel Cells. <b>2013</b> , 133-158		2
705	Structural manipulation of the catalysts for ammonia decomposition. 118-140		13
704	Ammonia as a Suitable Fuel for Fuel Cells. <b>2014</b> , 2,		104
703	Ammonia Gasoline Fuel Blends: Feasibility Study of Commercially Available Emulsifiers and Effects on Stability and Engine Performance. <b>2014</b> ,		12
702	Absorption and Desorption Characteristics of NH3 with Metal Chlorides for Ammonia Storage. <b>2014</b> , 47, 542-548		9
701	Ammonia Gasoline-Ethanol/Methanol Tertiary Fuel Blends as an Alternate Automotive Fuel. <b>2014</b> ,		2
700	Ammonia borane at high pressures. <b>2014</b> , 59, 5227-5234		3
699	Implications of diurnal and seasonal variations in renewable energy generation for large scale energy storage. <b>2014</b> , 6, 033105		61
698	Carbon-palladium films as gas sensors (hydrogen, ammonia, methane). <b>2014</b> ,		
697	Plasmon-induced ammonia synthesis through nitrogen photofixation with visible light irradiation. <b>2014</b> , 53, 9802-5		175
696	Chromate cathode decorated with in-situ growth of copper nanocatalyst for high temperature carbon dioxide electrolysis. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 20888-20897	6.7	44
695	Experimental Analysis of SOFC Fuelled by Ammonia. <b>2014</b> , 14, 221-230		28

694	Plasmon-Induced Ammonia Synthesis through Nitrogen Photofixation with Visible Light Irradiation. <b>2014</b> , 126, 9960-9963		27
693	Electrochemical synthesis of ammonia from N <sub>2</sub> and H <sub>2</sub> O based on (Li,Na,K) <sub>2</sub> CO <sub>3</sub> Te <sub>0.8</sub> Gd <sub>0.18</sub> Ca <sub>0.02</sub> O <sub>2</sub> composite electrolyte and CoFe <sub>2</sub> O <sub>4</sub> cathode. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 4322-4330	6.7	45
692	Experimental performance evaluation of an ammonia-fuelled microchannel reformer for hydrogen generation. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 7225-7235	6.7	11
691	Iridium-Catalyzed Hydrogen Production from Hydrosilanes and Water. <b>2014</b> , 6, 1691-1697		34
690	Regenerative Fuel Cells for Energy Storage. <b>2014</b> , 102, 964-975		26
689	Using three chemical looping reactors in ammonia production process [A novel plant configuration for a green production. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 8271-8282	6.7	44
688	Synthesis of ammonia directly from wet air at intermediate temperature. <b>2014</b> , 152-153, 212-217		78
687	Ammonia borane, past as prolog. <b>2014</b> , 751, 60-66		70
686	Experimental study of hydrogen production from reforming of methane and ammonia assisted by Laval nozzle arc discharge. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 19990-19999	6.7	5
685	Designing mixed metal halide amines for ammonia storage using density functional theory and genetic algorithms. <b>2014</b> , 16, 19732-40		16
684	Exploring electrochemical technology: A perspective on the ASEE/NSF small business postdoctoral research diversity fellowship. <b>2014</b> ,		
683	Renewable energy based catalytic CH <sub>4</sub> conversion to fuels. <b>2014</b> , 4, 2397		50
682	Anion-exchange membranes in electrochemical energy systems. <b>2014</b> , 7, 3135-3191		1296
681	Nickel hydroxide electrode with a monolayer of nanocup arrays as an effective electrocatalyst for enhanced electrolysis of urea. <b>2014</b> , 144, 194-199		89
680	Enhancement of Electrochemical Oxidation of Ammonia and Ammonium Carbonate over Pt Black Catalysts through Interaction with Manganese Dioxide Nanoparticles. <b>2014</b> , 53, 14673-14678		
679	Can hydrogen or natural gas be alternatives for aviation? [A life cycle assessment. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 13266-13275	6.7	26
678	Challenges in reduction of dinitrogen by proton and electron transfer. <b>2014</b> , 43, 5183-91		860
677	Thermodynamics on Ammonia Absorption of Metal Halides and Borohydrides. <b>2014</b> , 118, 18412-18416		24

676	Ni <sub>3</sub> WC/C nanocluster catalysts for urea electrooxidation. <b>2014</b> , 264, 282-289		102
675	Hydrogen production from ammonia using sodium amide. <b>2014</b> , 136, 13082-5		114
674	Ammonia Synthesis via Non-Equilibrium Reaction of Lithium Nitride in Hydrogen Flow Condition. <b>2015</b> , 56, 410-414		10
673	Activation on Ammonia Absorbing Reaction for Magnesium Chloride. <b>2015</b> , 119, 26296-26302		19
672	Ru-N-C Hybrid Nanocomposite for Ammonia Dehydrogenation: Influence of N-doping on Catalytic Activity. <b>2015</b> , 8, 3442-3455		16
671	Reduction and Nitriding Behavior of Hematite with Ammonia. <b>2015</b> , 55, 736-741		5
670	Monolayer TiO <sub>2</sub> A Promising Candidate for NH <sub>3</sub> Sensor or Capturer with High Sensitivity and Selectivity. <b>2015</b> , 7, 13707-13		367
669	Accelerated DFT-Based Design of Materials for Ammonia Storage. <b>2015</b> , 27, 4552-4561		15
668	Oxidation of ammonia using PtRh/C electrocatalysts: Fuel cell and electrochemical evaluation. <b>2015</b> , 174-175, 136-144		64
667	Electrochemical ammonia synthesis from steam and nitrogen using proton conducting yttrium doped barium zirconate electrolyte with silver, platinum, and lanthanum strontium cobalt ferrite electrocatalyst. <b>2015</b> , 284, 245-251		56
666	A Stability Study of Ni/Yttria-Stabilized Zirconia Anode for Direct Ammonia Solid Oxide Fuel Cells. <b>2015</b> , 7, 28701-7		41
665	Metal hydride/hydrazine borane: Towards hydrazinidoboranes or composites as hydrogen carriers. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 14875-14884	6.7	12
664	Practical Experience With a Mobile Methanol Synthesis Device. <b>2015</b> , 137,		4
663	Membrane reactors for ammonia production. <b>2015</b> , 543-563		2
662	Wind and solar hydrogen for the potential production of ammonia in the state of Cear� Brazil. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 9917-9923	6.7	24
661	Photocatalytic H <sub>2</sub> generation from aqueous ammonia solution using ZnO photocatalysts prepared by different methods. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 8530-8538	6.7	24
660	Composite manganate oxygen electrode enhanced with iron oxide nanocatalyst for high temperature steam electrolysis in a proton-conducting solid oxide electrolyzer. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 7920-7931	6.7	18
659	NH <sub>3</sub> Decomposition for H <sub>2</sub> Generation: Effects of Cheap Metals and Supports on Plasma Catalyst Synergy. <b>2015</b> , 5, 4167-4174		70

658	Characteristic of high temperature fermentation for ammonia production. <b>2015</b> , 8, 155-160	
657	Synthesis of ammonia directly from wet air using Sm(0.6)Ba(0.4)Fe(0.8)Cu(0.2)O(3- $\delta$ ) as the catalyst. <b>2015</b> , 182, 353-63	17
656	Electrochemical Synthesis of Ammonia Based on Co <sub>3</sub> Mo <sub>3</sub> N Catalyst and LiAlO <sub>2</sub> (Li,Na,K) <sub>2</sub> CO <sub>3</sub> Composite Electrolyte. <b>2015</b> , 6, 286-294	29
655	Electrochemical and catalytic properties of Ni/BaCe <sub>0.75</sub> Y <sub>0.25</sub> O <sub>3-<math>\delta</math></sub> anode for direct ammonia-fueled solid oxide fuel cells. <b>2015</b> , 7, 7406-12	36
654	Plasmon-induced artificial photosynthesis. <b>2015</b> , 5, 20140082	7
653	Membrane reactors for dry reforming of methane. <b>2015</b> , 99-144	3
652	Exploring N-Rich Phases in Li(x)N(y) Clusters for Hydrogen Storage at Nanoscale. <b>2015</b> , 6, 3726-30	10
651	Nitrogen fertilizers manufactured using wind power: greenhouse gas and energy balance of community-scale ammonia production. <b>2015</b> , 107, 626-635	50
650	Ammonia decomposition catalysis using non-stoichiometric lithium imide. <b>2015</b> , 6, 3805-3815	71
649	Hydrogen purification of synthetic water gas shift gases using microstructured palladium membranes. <b>2015</b> , 297, 525-533	19
648	Electronic promoter or reacting species? The role of LiNH <sub>2</sub> on Ru in catalyzing NH <sub>3</sub> decomposition. <b>2015</b> , 51, 15161-4	31
647	Adsorption and dissociation of ammonia on small iron clusters. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 346-352	6.7 15
646	In situ growth of Ni(x)Cu(1-x) alloy nanocatalysts on redox-reversible rutile (Nb,Ti)O <sub>2</sub> towards high-temperature carbon dioxide electrolysis. <b>2014</b> , 4, 5156	35
645	Reaction of [Ni(H <sub>2</sub> O) <sub>6</sub> ](NO <sub>3</sub> ) <sub>2</sub> with gaseous NH <sub>3</sub> ; crystal growth via in-situ solvation. <b>2015</b> , 412, 1-6	3
644	The Photocatalytic Window: Photo-Reforming of Organics and Water Splitting for Sustainable Hydrogen Production. <b>2015</b> , 145, 214-219	40
643	Development of a partial heating system to enhance bio-ammonia production and recovery by anaerobic digestion of nitrogen-rich wastewater: Effect of partial heating modules. <b>2015</b> , 262, 973-979	9
642	Reduction of N <sub>2</sub> with H <sub>2</sub> on palladium surfaces at low temperatures. <b>2015</b> , 618, 1-5	5
641	Research on Combustion and Emission Characteristics of Ammonia under Preheating Conditions. <b>2016</b> , 49, 641-648	6

640	Hydrogen Ab/Desorption of LiH-KH Composite and Ammonia System. <b>2016</b> , 57, 1215-1219	2
639	Hydrogen Production from Ammonia Using a Plasma Membrane Reactor. <b>2016</b> , 4, 193-202	4
638	Nitrogen-Based Fuels: A Power-to-Fuel-to-Power Analysis. <b>2016</b> , 55, 8798-805	47
637	Facile Uptake and Release of Ammonia by Nickel Halide Amines. <b>2016</b> , 9, 1312-21	7
636	Stickstoffbasierte Kraftstoffe: eine Power-to-Fuel-to-Power-Analyse. <b>2016</b> , 128, 8942-8949	4
635	Catalytic Dinitrogen Fixation to Form Ammonia at Ambient Reaction Conditions Using Transition Metal-Dinitrogen Complexes. <b>2016</b> , 16, 1549-77	76
634	Selective Dinitrogen Conversion to Ammonia Using Water and Visible Light through Plasmon-induced Charge Separation. <b>2016</b> , 55, 3942-6	183
633	Alkaline Ammonia Electrolysis on Electrodeposited Platinum for Controllable Hydrogen Production. <b>2016</b> , 9, 403-8	44
632	Selective Dinitrogen Conversion to Ammonia Using Water and Visible Light through Plasmon-induced Charge Separation. <b>2016</b> , 128, 4010-4014	69
631	Structures and electrochemical performances of RE-Mg-Ni-Mn-based alloys prepared by casting and melt spinning. <b>2016</b> , 34, 1241-1251	6
630	Effects of spinning rate on structures and electrochemical hydrogen storage performances of RE-Mg-Ni-Mn-based AB <sub>2</sub> -type alloys. <b>2016</b> , 26, 3219-3231	10
629	Fe-assisted Ru clusters supported on porous and graphitic carbon for ammonia decomposition to CO <sub>x</sub> free hydrogen. <b>2016</b> , 6, 102336-102342	4
628	Nitrogen-Based Alternative Fuels: Progress and Future Prospects. <b>2016</b> , 4, 7-18	15
627	Role of metal oxide supports in NH <sub>3</sub> decomposition over Ni catalysts. <b>2016</b> , 524, 45-49	36
626	The role (or lack thereof) of nitrogen or ammonia adsorption-induced hydrogen flux inhibition on palladium membrane performance. <b>2016</b> , 514, 65-72	19
625	Trends in Catalysis and Catalyst Cost Effectiveness for N <sub>2</sub> H <sub>4</sub> Fuel Cells and Sensors: a Rotating Disk Electrode (RDE) Study. <b>2016</b> , 120, 4717-4738	35
624	Ammonia-Borane and Amine-Borane Dehydrogenation Mediated by Complex Metal Hydrides. <b>2016</b> , 116, 8848-72	281
623	Formic acid as a hydrogen storage material - development of homogeneous catalysts for selective hydrogen release. <b>2016</b> , 45, 3954-88	480

622	MXenes: Reusable materials for NH <sub>3</sub> sensor or capturer by controlling the charge injection. <b>2016</b> , 235, 103-109		159
621	Highly efficient Ru/carbon catalysts prepared by pyrolysis of supported Ru complex towards the hydrogen production from ammonia borane. <b>2016</b> , 527, 45-52		50
620	Attapulgite clay supported Ni nanoparticles encapsulated by porous silica: Thermally stable catalysts for ammonia decomposition to CO <sub>x</sub> free hydrogen. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 21157-21165	6.7	23
619	Ammonia Synthesis by N <sub>2</sub> and Steam Electrolysis in Solid-State Cells at 220°C and Atmospheric Pressure. <b>2016</b> , 163, E282-E287		20
618	Electrocatalytic Nitrogen Fixation for Distributed Fertilizer Production?. <b>2016</b> , 4, 5855-5858		46
617	H <sub>2</sub> Production via Ammonia Decomposition Using Non-Noble Metal Catalysts: A Review. <b>2016</b> , 59, 1438-1457		145
616	An investigation on hydrogen storage thermodynamics and kinetics of PrMgNi-based PrMg <sub>12</sub> -type alloys synthesized by mechanical milling. <b>2016</b> , 688, 585-593		18
615	Urea removal from aqueous solutions—review. <b>2016</b> , 46, 1011-1029		111
614	A review of fuel cell systems for maritime applications. <b>2016</b> , 327, 345-364		245
613	Improved electrolysis of liquid ammonia for hydrogen generation via ammonium salt electrolyte and Pt/Rh/Ir electrocatalysts. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 14507-14518	6.7	22
612	Electrochemical hydrogen storage behaviour of as-cast and as-spun RE <sub>2</sub> MgNiMn-based alloys applied to NiMH battery. <b>2016</b> , 107, 824-834		3
611	Urea-Based Fuel Cells and Electrocatalysts for Urea Oxidation. <b>2016</b> , 4, 1329-1337		114
610	Effect of Pore Confinement of LiNH <sub>2</sub> on Ammonia Decomposition Catalysis and the Storage of Hydrogen and Ammonia. <b>2016</b> , 120, 27212-27220		20
609	Thermal decomposition of sodium amide, NaNH <sub>2</sub> , and sodium amide hydroxide composites, NaNH <sub>2</sub> -NaOH. <b>2016</b> , 18, 25257-25264		14
608	Microwave-assisted synthesis of carbon-supported carbides catalysts for hydrous hydrazine decomposition. <b>2016</b> , 96-97, 115-120		7
607	Electronically modified Pd catalysts supported on N-doped carbon for the dehydrogenation of formic acid. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 15453-15461	6.7	46
606	Flow Reactor Combustion of Aqueous Urea Ammonium Nitrate Fuel. <b>2016</b> , 30, 2474-2477		8
605	Using novel compressed-air energy storage systems as a green strategy in sustainable power generation—review. <b>2016</b> , 40, 1595-1610		21



604	Hydrazine as a facile and highly efficient hydrogen source for reduction of NaHCO <sub>3</sub> into formic acid over Ni and ZnO catalysts. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 9135-9139	6.7	6
603	Performance of a Small-Scale Haber Process. <b>2016</b> , 55, 3742-3750		74
602	Hydrogen production from ammonia decomposition over a commercial Ru/Al <sub>2</sub> O <sub>3</sub> catalyst in a microchannel reactor: Experimental validation and CFD simulation. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 3774-3785	6.7	28
601	Ammonia-fed fuel cells: a comprehensive review. <b>2016</b> , 60, 822-835		214
600	Combustion simulations of aqueous urea ammonium nitrate monofuel at high pressures. <b>2016</b> , 166, 295-306		11
599	Ammonia decomposition over cobalt/carbon catalysts Effect of carbon support and electron donating promoter on activity. <b>2017</b> , 286, 131-140		36
598	Fe- and Co-doped lanthanum oxides catalysts for ammonia decomposition: Structure and catalytic performances. <b>2017</b> , 35, 15-23		15
597	Conceptual design of ammonia-based energy storage system: System design and time-invariant performance. <b>2017</b> , 63, 1620-1637		53
596	Carbon-encapsulated nickel-iron nanoparticles supported on nickel foam as a catalyst electrode for urea electrolysis. <b>2017</b> , 227, 210-216		49
595	NiCo <sub>2</sub> O <sub>4</sub> nanosheets grown on current collectors as binder-free electrodes for hydrogen production via urea electrolysis. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 3987-3993	6.7	46
594	Highly Dispersed Nickel Particles Encapsulated in Multi-hollow Silicalite-1 Single Crystal Nanoboxes: Effects of Siliceous Deposits and Phosphorous Species on the Catalytic Performances. <b>2017</b> , 9, 2297-2307		17
593	Structures and Electrochemical Hydrogen Storage Properties of the As-Spun RE-Mg-Ni-Co-Al-Based AB <sub>2</sub> -Type Alloys Applied to Ni-MH Battery. <b>2017</b> , 48, 2472-2482		2
592	Computational Predictions of Catalytic Activity of Zincblende (110) Surfaces of Metal Nitrides for Electrochemical Ammonia Synthesis. <b>2017</b> , 121, 6141-6151		68
591	Cobalt hollow nanospheres: controlled synthesis, modification and highly catalytic performance for hydrolysis of ammonia borane. <b>2017</b> , 62, 326-331		12
590	Hydrogen storage thermodynamic and kinetic characteristics of PrMg <sub>12</sub> -type alloys synthesized by mechanical milling. <b>2017</b> , 24, 198-205		6
589	Theoretical study of the structure and dehydrogenation mechanism of sodium hydrazinidoborane. <b>2017</b> , 16, 1750020		3
588	Highly active NiBe double hydroxides as anode catalysts for electrooxidation of urea. <b>2017</b> , 41, 4190-4196		60
587	Mesoporous Ru/MgO prepared by a deposition-precipitation method as highly active catalyst for producing CO <sub>x</sub> -free hydrogen from ammonia decomposition. <b>2017</b> , 211, 167-175		84

586	Selective Nitrate-to-Ammonia Transformation on Surface Defects of Titanium Dioxide Photocatalysts. <b>2017</b> , 7, 3713-3720		80
585	Improved hydrogen storage kinetics of nanocrystalline and amorphous Pr-Mg-Ni-based PrMg <sub>12</sub> -type alloys synthesized by mechanical milling. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 18452-18464	6.7	5
584	Structures and electrochemical hydrogen storage properties of melt-spun RE-Mg-Ni-Co-Al alloys. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 14227-14245	6.7	12
583	Ammonia Decomposition for Decentralized Hydrogen Production in Microchannel Reactors: Experiments and CFD Simulations. <b>2017</b> , 77-111		1
582	Nitrogen-Containing Liquid Organic Hydrogen Carriers: Progress and Prospects. <b>2017</b> , 5, 4491-4498		59
581	Metal-Organic Frameworks as Heterogeneous Catalysts in Hydrogen Production from Lightweight Inorganic Hydrides. <b>2017</b> , 7, 5035-5045		68
580	Hydrogen Storage Technologies for Future Energy Systems. <b>2017</b> , 8, 445-471		141
579	A review on proton conducting electrolytes for clean energy and intermediate temperature-solid oxide fuel cells. <b>2017</b> , 79, 750-764		205
578	Improvement on hydrogen storage thermodynamics and kinetics of the as-milled SmMg <sub>11</sub> Ni alloy by adding MoS <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 17157-17166	6.7	7
577	Synergy of DBD plasma and Fe-based catalyst in NH <sub>3</sub> decomposition: Plasma enhancing adsorption step. <b>2017</b> , 14, 1600111		9
576	Nanostructured Pt Surfaces with Ir Submonolayers for Enhanced NH <sub>3</sub> Electro-oxidation. <b>2017</b> , 4, 1327-1333		12
575	Structure and electrochemical hydrogen storage behaviors of RE-Mg-Ni-Co-Al-based AB <sub>2</sub> -type alloys prepared by melt spinning. <b>2017</b> , 699, 378-385		4
574	Iridium-Rhodium Nanoparticles for Ammonia Oxidation: Electrochemical and Fuel Cell Studies. <b>2017</b> , 4, 1101-1107		19
573	Formulation of ammonia decomposition rate in Ni-YSZ anode of solid oxide fuel cells. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 2370-2380	6.7	21
572	Production of Liquid Solar Fuels and Their Use in Fuel Cells. <b>2017</b> , 1, 689-738		85
571	Electrochemical Ammonia Synthesis Using Mixed Protonic-Electronic Conducting Cathodes with Exsolved Ru-Nanoparticles in Proton Conducting Electrolysis Cells. <b>2017</b> , 164, F1323-F1330		15
570	Electrochemical Acceleration of Ammonia Synthesis on Fe-Based Alkali-Promoted Electrocatalyst with Proton Conducting Solid Electrolyte. <b>2017</b> , 5, 10439-10446		30
569	Electrochemical Ammonia Synthesis Mediated by Titanocene Dichloride in Aqueous Electrolytes under Ambient Conditions. <b>2017</b> , 5, 9662-9666		27

568	The fate of ammonium in phengite at high temperature. <b>2017</b> , 102, 2244-2253		7
567	Ammonia synthesis at intermediate temperatures in solid-state electrochemical cells using cesium hydrogen phosphate based electrolytes and noble metal catalysts. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 26843-26854	6.7	26
566	Electrochemical reduction of aqueous nitrogen (N <sub>2</sub> ) at a low overpotential on (110)-oriented Mo nanofilm. <b>2017</b> , 5, 18967-18971		187
565	Towards Catalytic Ammonia Oxidation to Dinitrogen: A Synthetic Cycle by Using a Simple Manganese Complex. <b>2017</b> , 23, 11479-11484		39
564	Photocatalytic Conversion of Nitrogen to Ammonia with Water on Surface Oxygen Vacancies of Titanium Dioxide. <b>2017</b> , 139, 10929-10936		530
563	Nitrogen Fixation. <b>2017</b> , 1-21		12
562	Catalytic effect of MoS <sub>2</sub> on hydrogen storage thermodynamics and kinetics of an as-milled YMg <sub>11</sub> Ni alloy. <b>2017</b> , 7, 37689-37698		10
561	Role of Protons in Electrochemical Ammonia Synthesis Using Solid-State Electrolytes. <b>2017</b> , 5, 7972-7978		12
560	A comprehensive study on electrocatalytic current of urea oxidation by modified carbon paste electrode with Ni(II)-clinoptilolite nanoparticles: Experimental design by response surface methodology. <b>2017</b> , 801, 328-337		21
559	Molecular Catalysts for N Reduction: State of the Art, Mechanism, and Challenges. <b>2017</b> , 18, 2606-2617		66
558	Ion-conducting ceramic membrane reactors for high-temperature applications. <b>2017</b> , 543, 79-97		67
557	Iron Catalyzed Dehydrocoupling of Amine- and Phosphine-Boranes. <b>2017</b> , 57, 1070-1081		15
556	Ammonia Synthesis from Nitrogen and Water by Electricity Using an Electrochemical Cell with Ru Catalyst, Hydrogen-Permeable Pd-Ag Membrane, and Phosphate-Based Electrolyte. <b>2017</b> , 2, 11100-11103		11
555	Pollutant Abatement of Nitrogen-Based Fuel Effluents over Mono- and Bimetallic Pt/Ru Catalysts. <b>2017</b> , 2, 8273-8281		
554	Ammonia synthesis over yttrium-doped barium zirconate and cerate-based perovskite-type oxide supported ruthenium catalysts. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 29745-29755	6.7	22
553	Directly growing hierarchical nickel-copper hydroxide nanowires on carbon fibre cloth for efficient electrooxidation of ammonia. <b>2017</b> , 218, 470-479		65
552	Ammonia production from amino acid-based biomass-like sources by engineered <i>Escherichia coli</i> . <b>2017</b> , 7, 83		9
551	CsH <sub>5</sub> (PO <sub>4</sub> ) <sub>2</sub> /quartz fiber thin membranes for intermediate temperature fuel cells and electrochemical synthesis of ammonia. <b>2017</b> , 47, 803-814		10

550	A colorimetric and ratiometric fluorescent probe for hydrazine and its application in living cells with low dark toxicity. <b>2017</b> , 241, 665-671		68
549	Electrochemical synthesis of ammonia from wet nitrogen via a dual-chamber reactor using La 0.6 Sr 0.4 Co 0.2 Fe 0.8 O 3/Ce 0.8 Gd 0.18 Ca 0.02 O 2 composite cathode. <b>2017</b> , 286, 51-56		25
548	Structures and hydrogen storage performances of rare earth-Mg-Ni-Mn-based AB <sub>2</sub> -type alloys applied to Ni-MH battery. <b>2017</b> , 21, 1015-1025		5
547	The nitrogen economy: Economic feasibility analysis of nitrogen-based fuels as energy carriers. <b>2017</b> , 185, 183-188		36
546	Photocatalytic N <sub>2</sub> conversion to ammonia using efficient nanostructured solar-energy-materials in aqueous media: A novel hydrogenation strategy and basic understanding of the phenomenon. <b>2017</b> , 529, 91-97		59
545	In situ formation of Ru nanoparticles on La <sub>1-x</sub> Sr <sub>x</sub> TiO <sub>3</sub> -based mixed conducting electrodes and their application in electrochemical synthesis of ammonia using a proton-conducting solid electrolyte. <b>2017</b> , 52, 2825-2835		32
544	A new synthesis route of ammonia production through hydrolysis of metal nitrides. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 24897-24903	6.7	19
543	The Nitrogen Economy: The Feasibility of Using Nitrogen-Based Alternative Fuels. <b>2017</b> , 135, 3-13		5
542	Study on premixed combustion characteristics of co-firing ammonia/methane fuels. <b>2017</b> , 140, 125-135		62
541	Catalytic Ammonia Decomposition over High-Performance Ru/Graphene Nanocomposites for Efficient CO <sub>x</sub> -Free Hydrogen Production. <b>2017</b> , 7, 23		17
540	An Amorphous Noble-Metal-Free Electrocatalyst that Enables Nitrogen Fixation under Ambient Conditions. <b>2018</b> , 130, 6181-6184		107
539	An Amorphous Noble-Metal-Free Electrocatalyst that Enables Nitrogen Fixation under Ambient Conditions. <b>2018</b> , 57, 6073-6076		443
538	Dimensionally reduced modeling of nitric oxide formation for premixed methane-air flames with ammonia content. <b>2018</b> , 217, 98-105		19
537	Simultaneous neutron powder diffraction and microwave dielectric studies of ammonia absorption in metal-organic framework systems. <b>2018</b> , 20, 10460-10469		5
536	The Influence of the Specific Surface Area of the Carbon Support on the Activity of Ruthenium Catalysts for the Ammonia-Decomposition Reaction. <b>2018</b> , 59, 136-142		8
535	Reduced Temperature Ammonia Decomposition Using Ni/Zr-Doped Al <sub>2</sub> O <sub>3</sub> Catalyst. <b>2018</b> , 148, 1775-1783		12
534	Study of hydrogenation and dehydrogenation of 1-methylindole for reversible onboard hydrogen storage application. <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 8868-8876	6.7	32
533	Synthesis and Electrocatalytic Activity of Ammonium Nickel Phosphate, [NH <sub>4</sub> ] <sub>2</sub> NiPO <sub>4</sub> ·H <sub>2</sub> O, and Nickel Pyrophosphate, Ni <sub>2</sub> P <sub>2</sub> O <sub>7</sub> : Catalysts for Electrocatalytic Decomposition of Urea. <b>2018</b> , 57, 1815-1823		25

532	Catalytic Silylation of N and Synthesis of NH and NH by Net Hydrogen Atom Transfer Reactions Using a Chromium P Macrocycle. <b>2018</b> , 140, 2528-2536	58
531	High-Efficiency Direct Ammonia Fuel Cells Based on BaZrCeYO /Pd Oxide-Metal Junctions. <b>2018</b> , 2, 1700088	12
530	Experimental investigation on syngas reburning process in a gaseous fuel firing semi-industrial combustion chamber. <b>2018</b> , 217, 490-498	10
529	Low-temperature ammonia decomposition catalysts for hydrogen generation. <b>2018</b> , 226, 162-181	171
528	A Spectroscopic Study on the Nitrogen Electrochemical Reduction Reaction on Gold and Platinum Surfaces. <b>2018</b> , 140, 1496-1501	336
527	A review on the non-thermal plasma-assisted ammonia synthesis technologies. <b>2018</b> , 177, 597-609	94
526	Reactions of Amine-Boranes with Oxalic Acid: Substitution on the N or B Atom Leads to Different Spiroborate Compounds. <b>2018</b> , 2018, 2659-2665	3
525	Infrared Spectra of NH <sub>3</sub> Compounds in LiCl-KCl-CsCl Molten Salts Using the Diffuse Reflectance Optical System. <b>2018</b> , 86, 88-91	3
524	Electrochemical membrane cell for NH <sub>3</sub> synthesis from N <sub>2</sub> and H <sub>2</sub> O by electrolysis at 200 to 250 °C using a Ru catalyst, hydrogen-permeable Pd membrane and phosphate-based electrolyte. <b>2018</b> , 2, 1278-1286	19
523	Ammonia Activation by Ce Atom: Matrix-Isolation FTIR and Theoretical Studies. <b>2018</b> , 122, 3541-3546	2
522	A highly efficient autothermal microchannel reactor for ammonia decomposition: Analysis of hydrogen production in transient and steady-state regimes. <b>2018</b> , 386, 47-55	15
521	Electrodeposited NiCu bimetal on carbon paper as stable non-noble anode for efficient electrooxidation of ammonia. <b>2018</b> , 237, 1101-1109	63
520	Design and operation of an ammonia-fueled microchannel reactor for autothermal hydrogen production. <b>2018</b> , 310, 187-194	17
519	Structures and electrochemical performances of as-spun RE-Mg-Ni-Co-Al alloys applied to Ni-MH battery. <b>2018</b> , 34, 370-378	8
518	Colorimetric and fluorescent detection of hydrazine with high sensitivity and excellent selectivity. <b>2018</b> , 188, 208-212	11
517	Automation of the Storing-In Part of a Hydrogen-Storage System using Liquid Organic Hydrogen Carriers. <b>2018</b> , 6, 547-557	7
516	Plasma assisted nitrogen oxide production from air: Using pulsed powered gliding arc reactor for a containerized plant. <b>2018</b> , 64, 526-537	38
515	Photocatalytic fixation of nitrogen to ammonia: state-of-the-art advancements and future prospects. <b>2018</b> , 5, 9-27	435

514	Comparative assessments of two integrated systems with/without fuel cells utilizing liquefied ammonia as a fuel for vehicular applications. <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 4597-4608	6.7	26
513	A simple two-output near-infrared fluorescent probe for hydrazine detection in living cells and mice. <b>2018</b> , 258, 42-49		46
512	Hydrogen storage performance of the as-milled Y Mg Ni alloy catalyzed by CeO <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 1643-1650	6.7	11
511	Hydrazine Electro-Oxidation at Epitaxial Ir <sub>x</sub> Pt <sub>100-x</sub> Alloys. <b>2018</b> , 1-8		
510	. <b>2018</b> ,		3
509	Ni-based Catalysts for Hydrogen Production from Ammonia Decomposition: Effect of Dopants and Urine Application. <b>2018</b> , 3, 11842-11850		7
508	Production, transportation, and utilization of carbon-free hydrogen. <b>2018</b> ,		2
507	Mass-analyzed threshold ionization spectroscopy of lanthanide imide LnNH (Ln = La and Ce) radicals from N-H bond activation of ammonia. <b>2018</b> , 149, 234301		8
506	Modifying the structure of red mud by simple treatments for high and stable performance in CO <sub>x</sub> -free hydrogen production from ammonia. <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 20525-20537	6.7	5
505	Review Ammonia Oxidation Electrocatalysis for Hydrogen Generation and Fuel Cells. <b>2018</b> , 165, J3130-J3147		87
504	Performance assesment of hydrogen and ammonia combustion with various fuels for power generators. <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 21037-21048	6.7	21
503	Ammonia for power. <b>2018</b> , 69, 63-102		469
502	Reversible Gelation System for Hydrazine Based on Polymer Absorbent. <b>2018</b> , 6, 80		1
501	Ammonia Storage by Reversible Host-Guest Site Exchange in a Robust Metal-Organic Framework. <b>2018</b> , 130, 14994-14997		9
500	Promotion effect of proton-conducting oxide BaZr <sub>0.1</sub> Ce <sub>0.7</sub> Y <sub>0.2</sub> O <sub>3-δ</sub> on the catalytic activity of Ni towards ammonia synthesis from hydrogen and nitrogen. <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 17726-17736	6.7	19
499	Ammonia Synthesis by Radio Frequency Plasma Catalysis: Revealing the Underlying Mechanisms. <b>2018</b> , 1, 4824-4839		72
498	Formation of NO and NH in NH <sub>3</sub> -doped CH <sub>4</sub> + N <sub>2</sub> + O <sub>2</sub> flame: Experiments and modelling. <b>2018</b> , 194, 278-284		11
497	Anion-exchange-membrane-based electrochemical synthesis of ammonia as a carrier of hydrogen energy. <b>2018</b> , 35, 1620-1625		10

496	A numerical investigation of hydrogen injection into noble gas working fluids. <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 13575-13582	6.7	13
495	Comparison of SAFT-VR-Mie and CP-PC-SAFT in predicting phase behavior of associating systems I. Ammonia/water, methanol, ethanol and hydrazine. <b>2018</b> , 265, 639-653		12
494	Effects of water content and diluent pressure on the ignition of aqueous ammonia/ammonium nitrate and urea/ammonium nitrate fuels. <b>2018</b> , 224, 300-308		3
493	Refining Defect States in WO by Mo Doping: A Strategy for Tuning N Activation towards Solar-Driven Nitrogen Fixation. <b>2018</b> , 140, 9434-9443		462
492	Understanding the preferential oxidation of carbon monoxide (PrOx) using size-controlled Au nanocrystal catalyst. <b>2018</b> , 64, 3159-3167		13
491	Tracking the Active Catalyst for Iron-Based Ammonia Decomposition by In Situ Synchrotron Diffraction Studies. <b>2018</b> , 10, 4465-4472		7
490	Electrocatalytic effect of polyvinyl pyrrolidone capped platinum nanoparticles electrodeposited on platinum electrode for ammonia oxidation. <b>2018</b> ,		1
489	Suppression of Hydrogen Evolution Reaction in Electrochemical N <sub>2</sub> Reduction Using Single-Atom Catalysts: A Computational Guideline. <b>2018</b> , 8, 7517-7525		333
488	Electron-driven heterogeneous catalytic synthesis of ammonia: Current states and perspective. <b>2018</b> , 1, 2-31		30
487	Nitrogen-Based Hydrogen Storage Systems: A Detailed Overview. <b>2018</b> , 39-88		
486	Emerging Applications of Plasmons in Driving CO Reduction and N Fixation. <b>2018</b> , 30, e1802227		107
485	Nitrogen Fixation with Water on Carbon-Nitride-Based Metal-Free Photocatalysts with 0.1% Solar-to-Ammonia Energy Conversion Efficiency. <b>2018</b> , 1, 4169-4177		65
484	Effect of milling duration on hydrogen storage thermodynamics and kinetics of ball-milled CeMgNi-based alloy powders. <b>2018</b> , 25, 746-754		10
483	Functional MXene Materials: Progress of Their Applications. <b>2018</b> , 13, 2742-2757		86
482	Detailed Kinetic Mechanism for the Oxidation of Ammonia Including the Formation and Reduction of Nitrogen Oxides. <b>2018</b> , 32, 10202-10217		87
481	CO <sub>x</sub> -free hydrogen production from ammonia decomposition over sepiolite-supported nickel catalysts. <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 9954-9968	6.7	22
480	Power-to-ammonia in future North European 100 % renewable power and heat system. <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 17295-17308	6.7	87
479	Energy-Efficient Nitrogen Reduction to Ammonia at Low Overpotential in Aqueous Electrolyte under Ambient Conditions. <b>2018</b> , 11, 3416-3422		92



478	Ammonia Storage by Reversible Host-Guest Site Exchange in a Robust Metal-Organic Framework. <b>2018</b> , 57, 14778-14781	55
477	An investigation of gaseous hydrogen storage characterizations of Mg-Y-Ni-Cu alloys synthesized by melt spinning.. <b>2018</b> , 8, 28969-28977	4
476	A Bird's Eye view on process and engineering aspects of hydrogen storage. <b>2018</b> , 91, 838-860	56
475	Process simulation of ammonia synthesis over optimized Ru/C catalyst and multibed Fe + Ru configurations. <b>2018</b> , 66, 176-186	13
474	Potential Energy Solutions for Better Sustainability. <b>2018</b> , 3-37	5
473	Low-NOx conversion of pure ammonia in a cyclonic burner under locally diluted and preheated conditions. <b>2019</b> , 254, 113676	47
472	Enhanced Electrochemical N <sub>2</sub> Reduction to NH <sub>3</sub> on Reduced Graphene Oxide by Tannic Acid Modification. <b>2019</b> , 7, 14368-14372	14
471	Photocatalytic and electrocatalytic approaches towards atmospheric nitrogen reduction to ammonia under ambient conditions. <b>2019</b> , 6, 15	36
470	Spinel LiMnO Nanofiber: An Efficient Electrocatalyst for N Reduction to NH under Ambient Conditions. <b>2019</b> , 58, 9597-9601	72
469	Nitridation of the metallic Mo <sub>2</sub> C(001) surface from NH <sub>3</sub> dissociative adsorption. A DFT study. <b>2019</b> , 689, 121466	7
468	Assessment of the economic potential: CO -free hydrogen production from renewables via ammonia decomposition for small-sized H <sub>2</sub> refueling stations. <b>2019</b> , 113, 109262	24
467	Plasma-assisted catalytic formation of ammonia in N-H plasma on a tungsten surface. <b>2019</b> , 21, 16623-16633	15
466	Biomimetic Nitrogen Fixation Catalyzed by Transition Metal Sulfide Surfaces in an Electrolytic Cell. <b>2019</b> , 12, 4265-4273	27
465	Expansion of the urea electrocatalytic oxidation window by adsorbed nickel ions. <b>2019</b> , 49, 883-893	6
464	Fabrication of In <sub>2</sub> O <sub>3</sub> /In <sub>2</sub> S <sub>3</sub> microsphere heterostructures for efficient and stable photocatalytic nitrogen fixation. <b>2019</b> , 257, 117932	105
463	Ruthenium-catalysed oxidative conversion of ammonia into dinitrogen. <b>2019</b> , 11, 702-709	36
462	Energy and exergy analysis of hydrogen production combined with electric energy generation in a nuclear cogeneration cycle. <b>2019</b> , 198, 111805	31
461	Ammonia photosynthesis via an association pathway using a plasmonic photoanode and a zirconium cathode. <b>2019</b> , 21, 4443-4448	15



460	A Novel Fluorescence Sensor Towards Hydrazine in Living Cells. <b>2019</b> , 35, 570-576		9
459	A comparative assessment of Power-to-Fuel production pathways. <b>2019</b> , 183, 1253-1265		16
458	COx-free hydrogen production from ammonia on novel cobalt catalysts supported on 1D titanate nanotubes. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 30062-30074	6.7	18
457	Noble Metal-free Bimetallic Cobalt/Manganese Oxide Catalyst for Hydrogen Generation by Decomposition of Hydrous Hydrazine. <b>2019</b> , 40, 1167-1171		4
456	Fabricating Amorphous g-CN/ZrO Photocatalysts by One-Step Pyrolysis for Solar-Driven Ambient Ammonia Synthesis. <b>2019</b> , 11, 44360-44365		32
455	Effect of Magnetic Inducement in Preparation of Ni/Ce-doped Al <sub>2</sub> O <sub>3</sub> for Ammonia Decomposition. <b>2019</b> , 4, 11913-11919		6
454	Clean Hydrogen and Ammonia Synthesis in Paraguay from the Itaipu 14 GW Hydroelectric Plant. <b>2019</b> , 3, 87		3
453	H <sub>2</sub> production from lightweight inorganic hydrides catalyzed by 3d transition metals. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 25746-25776	6.7	18
452	Probing Photocatalytic Nitrogen Reduction to Ammonia with Water on the Rutile TiO <sub>2</sub> (110) Surface by First-Principles Calculations. <b>2019</b> , 9, 9178-9187		28
451	Room Temperature Ammonia Gas Sensor Based on Polyacrylonitrile/Silver@Polyaniline Nanofibers. <b>2019</b> , 19, 11021-11026		4
450	Electrochemical Synthesis of Ammonia: Recent Efforts and Future Outlook. <b>2019</b> , 9,		18
449	Low-temperature selective catalytic dehydrogenation of methylcyclohexane by surface protonics.. <b>2019</b> , 9, 27743-27748		13
448	Improving the electrocatalytic N <sub>2</sub> reduction activity of Pd nanoparticles through surface modification. <b>2019</b> , 7, 21674-21677		80
447	Comparison of liquid hydrogen, methylcyclohexane and ammonia on energy efficiency and economy. <b>2019</b> , 158, 4086-4091		19
446	Investigation of perovskite oxide SrFe <sub>0.8</sub> Cu <sub>0.1</sub> Nb <sub>0.1</sub> O <sub>3-<math>\delta</math></sub> as cathode for a room temperature direct ammonia fuel cell. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 26554-26564	6.7	9
445	Three-stage treatment for nitrogen and phosphorus recovery from human urine: Hydrolysis, precipitation and vacuum stripping. <b>2019</b> , 249, 109435		19
444	Photocatalytic Approaches for Hydrogen Production via Formic Acid Decomposition. <b>2019</b> , 377, 27		9
443	CrO Nanoparticle-Reduced Graphene Oxide Hybrid: A Highly Active Electrocatalyst for N Reduction at Ambient Conditions. <b>2019</b> , 58, 2257-2260		79

442	Overviews of the Preparation and Reactivity of Transition MetalDinitrogen Complexes. <b>2019</b> , 1-77		5
441	The role of renewable energy in the global energy transformation. <b>2019</b> , 24, 38-50		1054
440	A new era for combustion research. <b>2019</b> , 91, 271-288		11
439	Ammonia decomposition kinetics over LiOH-promoted, $\gamma$ -Al <sub>2</sub> O <sub>3</sub> -supported Ru catalyst. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 3726-3736	6.7	10
438	Preparation of metal oxide/polyaniline/N-MWCNT hybrid composite electrodes for electrocatalytic synthesis of ammonia at atmospheric pressure. <b>2019</b> , 3, 431-438		6
437	Ammonia gas sensors: A comprehensive review. <b>2019</b> , 204, 713-730		150
436	Highly sensitive and selective Love mode surface acoustic wave ammonia sensor based on graphene oxides operated at room temperature. <b>2019</b> , 54, 11925-11935		12
435	Integrated system of thermochemical cycle of ammonia, nitrogen production, and power generation. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 17525-17534	6.7	26
434	Toward multiscale consequential sustainable process design: Including the effects of economy and resource constraints with application to green urea production in a watershed. <b>2019</b> , 207, 725-743		6
433	Ru-doped barium strontium titanates of the cathode for the electrochemical synthesis of ammonia. <b>2019</b> , 339, 115010		8
432	Self-supported Ni(OH) <sub>2</sub> /MnO <sub>2</sub> on CFP as a flexible anode towards electrocatalytic urea conversion: The role of composition on activity, redox states and reaction dynamics. <b>2019</b> , 318, 32-41		21
431	Operation of solid oxide fuel cells with alternative hydrogen carriers. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 18382-18392	6.7	29
430	Jahn-Teller Distorted Effects To Promote Nitrogen Reduction over Keggin-Type Phosphotungstic Acid Catalysts: Insight from Density Functional Theory Calculations. <b>2019</b> , 58, 7852-7862		10
429	Electrocatalytic N-to-NH conversion using oxygen-doped graphene: experimental and theoretical studies. <b>2019</b> , 55, 7502-7505		63
428	Visible light driven efficient metal free single atom catalyst supported on nanoporous carbon nitride for nitrogen fixation. <b>2019</b> , 21, 12346-12352		40
427	Thermodynamics analysis of hydrogen storage based on compressed gaseous hydrogen, liquid hydrogen and cryo-compressed hydrogen. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 16833-16840	6.7	46
426	Effects of milling duration on electrochemical hydrogen storage behavior of as-milled Mg <sub>2</sub> TiNiAl-based alloys for use in Ni-metal hydride batteries. <b>2019</b> , 133, 178-186		8
425	A technoeconomic analysis of centralised and distributed processes of ammonia dissociation to hydrogen for fuel cell vehicle applications. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 14445-14455	6.7	13

424	Efficient photocatalytic nitrogen fixation under ambient conditions enabled by the heterojunctions of n-type BiMoO and oxygen-vacancy-rich p-type BiOBr. <b>2019</b> , 11, 10439-10445		102
423	In Situ Hydrothermal Growth of TiO Nanoparticles on a Conductive TiCT MXene Nanosheet: A Synergistically Active Ti-Based Nanohybrid Electrocatalyst for Enhanced N Reduction to NH at Ambient Conditions. <b>2019</b> , 58, 5414-5418		49
422	Transition Metal-dinitrogen Complex Embedded Graphene for Nitrogen Reduction Reaction. <b>2019</b> , 11, 2821-2827		49
421	Highly Efficient Ru/MgO Catalyst with Surface-Enriched Basic Sites for Production of Hydrogen from Ammonia Decomposition. <b>2019</b> , 11, 4161-4170		34
420	NiN/NF as Bifunctional Catalysts for Both Hydrogen Generation and Urea Decomposition. <b>2019</b> , 11, 13168-13175		35
419	New Approaches Toward the Hydrogen Production From Formic Acid Dehydrogenation Over Pd-Based Heterogeneous Catalysts. <b>2019</b> , 6,		52
418	Utilization of CO <sub>2</sub> for syngas production by CH <sub>4</sub> partial oxidation using a catalytic membrane reactor. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 9896-9905	6.7	3
417	Ammonia synthesis from nitrogen and water at intermediate temperatures and elevated pressures by using an electrochemical hydrogen-membrane reactor with supported Ru catalysts and phosphate electrolytes. <b>2019</b> , 3, 1406-1417		12
416	Effect of hydrogen addition on combustion and heat release characteristics of ammonia flame. <b>2019</b> , 175, 604-617		20
415	Study on the gaseous and electrochemical hydrogen storage properties of as-milled Ce Mg Ni-based alloys. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 29224-29234	6.7	
414	Improved hydrogen storage performances of Mg-Y-Ni-Cu alloys by melt spinning. <b>2019</b> , 138, 263-271		15
413	Hydrogen storage and delivery: Review of the state of the art technologies and risk and reliability analysis. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 12254-12269	6.7	271
412	Investigation of Perovskite Oxide SrCo Cu Nb O as a Cathode Material for Room Temperature Direct Ammonia Fuel Cells. <b>2019</b> , 12, 2788-2794		13
411	Highly Dispersed Co Nanoparticles Prepared by an Improved Method for Plasma-Driven NH <sub>3</sub> Decomposition to Produce H <sub>2</sub> . <b>2019</b> , 9, 107		8
410	Metal Hydrides for Energy Storage. <b>2019</b> , 775-810		2
409	Electrochemical Ammonia Generation Directly from Nitrogen and Air Using an Iron-Oxide/Titania-Based Catalyst at Ambient Conditions. <b>2019</b> , 11, 7981-7989		26
408	Ni-Co bimetal decorated carbon nanotube aerogel as an efficient anode catalyst in urea fuel cells. <b>2019</b> , 9, 479		27
407	Porous copper fiber sintered felts with surface microchannels for methanol steam reforming microreactor for hydrogen production. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 5755-5765	6.7	30

406	Reversible ammonia-based and liquid organic hydrogen carriers for high-density hydrogen storage: Recent progress. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 7746-7767	6.7	87
405	Catalytic ammonia decomposition for hydrogen production on Ni, Ru and Ni Ru supported on CeO <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 12693-12707	6.7	57
404	Ammonium chloride metal hydride based reaction cycle for vehicular applications. <b>2019</b> , 7, 5031-5042		5
403	Steady-state and transient modelling of a microchannel reactor for coupled ammonia decomposition and oxidation. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 6415-6426	6.7	5
402	Influence of Reaction Conditions and Promoting Role of Ammonia Produced at Higher Temperature Conditions in Its Synthesis Process over Cs-Ru/MgO Catalyst. <b>2019</b> , 4, 2218-2224		13
401	Enhanced Photocatalytic Nitrogen Fixation on MoO <sub>2</sub> /BiOCl Composite. <b>2019</b> , 11, 6467-6472		18
400	Cobalt Nitride Supported on Nickel Foam as Bifunctional Catalyst Electrodes for Urea Electrolysis-Assisted Hydrogen Generation. <b>2019</b> , 14, 1950152		2
399	Sustainable ammonia production through process synthesis and global optimization. <b>2019</b> , 65, e16498		54
398	A review on clean ammonia as a potential fuel for power generators. <b>2019</b> , 103, 96-108		120
397	A new quinoline-derived highly-sensitive fluorescent probe for the detection of hydrazine with excellent large-emission-shift ratiometric response. <b>2019</b> , 195, 857-864		38
396	Tailoring Oxygen Vacancies of BiVO <sub>4</sub> toward Highly Efficient Noble-Metal-Free Electrocatalyst for Artificial N <sub>2</sub> Fixation under Ambient Conditions. <b>2019</b> , 3, 1800333		61
395	Ni anchored C <sub>2</sub> N monolayers as low-cost and efficient catalysts for hydrogen production from formic acid. <b>2019</b> , 413, 399-407		28
394	Thermal modelling of ethanol-fuelled Solid Oxide Fuel Cells. <b>2019</b> , 237, 476-486		23
393	Gaseous hydrogen storage properties of Mg-Y-Ni-Cu alloys prepared by melt spinning. <b>2019</b> , 37, 750-759		2
392	Dehydrogenation of formic acid catalysed by M-embedded nitrogen-doped graphene (M = Fe, Ru, Os): a DFT study. <b>2019</b> , 43, 1440-1448		6
391	Electrocatalytic N <sub>2</sub> Fixation over Hollow VO <sub>2</sub> Microspheres at Ambient Conditions. <b>2019</b> , 6, 1014-1018		43
390	Nitrogen-doped carbon materials as a promising platform toward the efficient catalysis for hydrogen generation. <b>2019</b> , 571, 25-41		41
389	Structures and hydrogen storage properties of RE <sub>2</sub> Mg <sub>2</sub> NiMn-based AB <sub>2</sub> -type alloys prepared by casting and melt spinning. <b>2019</b> , 38, 1086-1096		2

388	Electrochemical hydrogen storage behaviors of as-cast and spun REMgNiCoAl-based AB <sub>2</sub> -type alloys applied to NiMH battery. <b>2020</b> , 39, 181-192	10
387	Modified Solution Combustion Synthesis (SCS) of nickel oxide, NiO sphere clusters using glucans and sodium salts: Application for electrocatalytic decomposition of urea. <b>2020</b> , 295, 109750	2
386	A Practical Methodology to Estimate the H <sub>2</sub> Storage Capacity of Pure and Binary Hydrates Based on Monte Carlo Simulations. <b>2020</b> , 65, 1289-1299	4
385	Phenothiazine-based fluorescence probe for ratiometric imaging of hydrazine in living cells with remarkable Stokes shift. <b>2020</b> , 227, 117675	11
384	An Electrochemical Haber-Bosch Process. <b>2020</b> , 4, 142-158	122
383	Structure and Electrochemical Hydrogen Storage Properties of as-Milled MgTeNiAl-Based Alloys. <b>2020</b> , 33, 630-642	1
382	Ammonia decomposition over 3D-printed CeO <sub>2</sub> structures loaded with Ni. <b>2020</b> , 591, 117382	20
381	Photocatalytic Dinitrogen Reduction with Water on Boron-Doped Carbon Nitride Loaded with Nickel Phosphide Particles. <b>2020</b> , 36, 734-741	18
380	Oxygen vacancy engineering in spinel-structured nanosheet wrapped hollow polyhedra for electrochemical nitrogen fixation under ambient conditions. <b>2020</b> , 8, 1652-1659	33
379	Current and future role of Haber-Bosch ammonia in a carbon-free energy landscape. <b>2020</b> , 13, 331-344	263
378	An ultrasmall Ru <sub>2</sub> P nanoparticles-reduced graphene oxide hybrid: an efficient electrocatalyst for NH <sub>3</sub> synthesis under ambient conditions. <b>2020</b> , 8, 77-81	87
377	Thermodynamic analysis of novel vanadium redox materials for solar thermochemical ammonia synthesis from N <sub>2</sub> and CH <sub>4</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 2569-2577	6.7 3
376	Co-generation of Ammonia and H <sub>2</sub> from H <sub>2</sub> O Vapor and N <sub>2</sub> Using a Membrane Electrode Assembly. <b>2020</b> , 92, 62-69	2
375	Enhancement of Selective Fixation of Dinitrogen to Ammonia under Modal Strong Coupling Conditions. <b>2020</b> , 2020, 1396-1401	4
374	Fe Enhanced Visible-Light-Driven Nitrogen Fixation on BiOBr Nanosheets. <b>2020</b> , 32, 1488-1494	58
373	Understanding of nitrogen fixation electro catalyzed by molybdenum-trifon carbide through the experiment and theory. <b>2020</b> , 68, 104374	32
372	CoS <sub>2</sub> Nanoparticles-Embedded N-Doped Carbon Nanobox Derived from ZIF-67 for Electrocatalytic N <sub>2</sub> -to-NH <sub>3</sub> Fixation under Ambient Conditions. <b>2020</b> , 8, 29-33	23
371	Non-thermal atmospheric plasma synthesis of ammonia in a DBD reactor packed with various catalysts. <b>2020</b> , 53, 064002	12

- 370 Hydrogen production from ammonia decomposition using Co/Al<sub>2</sub>O<sub>3</sub> catalysts [Insights into the effect of synthetic method. *International Journal of Hydrogen Energy*, **2020**, 45, 27210-27220 6.7 9
- 369 A comprehensive review on countermeasures for CO<sub>2</sub> emissions from ships. **2020**, 134, 110222 40
- 368 Effect of milling duration on hydrogen storage thermodynamics and kinetics of Mg-based alloy. *International Journal of Hydrogen Energy*, **2020**, 45, 33832-33845 6.7 8
- 367 A selective and sensitive near-infrared fluorescent probe for in vivo real time tracking of exogenous and metabolized hydrazine, a genotoxic impurity. **2020**, 8, 10353-10359 4
- 366 Improved stability and activity of Fe-based catalysts through strong metal support interactions due to extrinsic oxygen vacancies in Ce<sub>0.8</sub>Sm<sub>0.2</sub>O<sub>2</sub>F for the efficient synthesis of ammonia. **2020**, 8, 16676-16689 12
- 365 CuP nanoparticle-reduced graphene oxide hybrid: an efficient electrocatalyst to realize N-to-NH conversion under ambient conditions. **2020**, 56, 9328-9331 38
- 364 Recent Progress with Pincer Transition Metal Catalysts for Sustainability. **2020**, 10, 773 35
- 363 Compressive behavior and electronic properties of ammonia ice: a first-principles study.. **2020**, 10, 26579-26587 10
- 362 Hydrogen production thermocatalytic decomposition of methane using carbon-based catalysts.. **2020**, 10, 40882-40893 10
- 361 Gas Chromatographic Method for In Situ Ammonia Quantification at Parts per Billion Levels. **2020**, 5, 3773-3777 12
- 360 Vanadium oxynitrides as stable catalysts for electrochemical reduction of nitrogen to ammonia: the role of oxygen. **2020**, 8, 24098-24107 14
- 359 Hydrogen generation by ammonia decomposition over Co/CeO<sub>2</sub> catalyst: Influence of support morphologies. **2020**, 532, 147335 27
- 358 Hydrogen diffusivity in the Sr-doped LaScO<sub>3</sub> proton-conducting oxides. *International Journal of Hydrogen Energy*, **2020**, 45, 23455-23468 6.7 7
- 357 Long-Term Stability of MFM-300(Al) toward Toxic Air Pollutants. **2020**, 12, 42949-42954 12
- 356 The Effect of in Situ Phenol Hydrogenation with Raney Ni on the Fate of Hydrogen from Glycerol Aqueous Phase Reforming. **2020**, 59, 14679-14688 4
- 355 Electricity Generation from Ammonia in Landfill Leachate by an Alkaline Membrane Fuel Cell Based on Precious-Metal-Free Electrodes. **2020**, 8, 12817-12824 11
- 354 Oxygen Vacancy Regulation Strategy Promotes Electrocatalytic Nitrogen Fixation by Doping Bi into Ce-MOF-Derived CeO<sub>2</sub> Nanorods. **2020**, 124, 18003-18009 12
- 353 Effects of fuel composition and wall thermal conductivity on thermal and NO<sub>x</sub> emission performances of an ammonia/hydrogen-oxygen micro-power system. **2020**, 209, 106527 26

352	Effects of AuCuB Catalysts with Porous Nanostructures on Electrosynthesis of Ammonia. <b>2020</b> , 8, 12588-125946	
351	Industrial Perspective on Hydrogen Purification, Compression, Storage, and Distribution. <b>2020</b> , 20, 385-393	10
350	Techno-economic viability of islanded green ammonia as a carbon-free energy vector and as a substitute for conventional production. <b>2020</b> , 13, 2957-2966	33
349	Electrochemical reduction of nitrate to ammonia via direct eight-electron transfer using a copper-molecular solid catalyst. <b>2020</b> , 5, 605-613	220
348	The FeN <sub>3</sub> Doped Fluorographene for N <sub>2</sub> Fixation: A Density Functional Theory Study. <b>2020</b> , 5, 9370-9376	2
347	First-principles study of biaxial strain effect on NH <sub>3</sub> adsorbed Ti <sub>2</sub> CO <sub>2</sub> monolayer. <b>2020</b> , 179, 109574	9
346	Carbon-free sustainable energy technology: Direct ammonia fuel cells. <b>2020</b> , 476, 228454	20
345	Ammonia Gas Sensor Response of a Vertical Zinc Oxide Nanorod-Gold Junction Diode at Room Temperature. <b>2020</b> , 5, 3568-3575	19
344	Perovskite Oxide Based Materials for Energy and Environment-Oriented Photocatalysis. <b>2020</b> , 10, 10253-10315	62
343	Mechanism for H diffusion in sII hydrates by molecular dynamics simulations. <b>2020</b> , 153, 054706	5
342	Highly improved hydrogen storage dynamics of nanocrystalline and amorphous NdMg <sub>12</sub> -type alloys by mechanical milling. <b>2020</b> , 27, 1236-1246	1
341	Amorphous CoMoO <sub>4</sub> with Nanoporous Structures for Electrochemical Ammonia Synthesis under Ambient Conditions. <b>2020</b> , 8, 19072-19083	7
340	Operation of a Solid Oxide Fuel Cell Based Power System with Ammonia as a Fuel: Experimental Test and System Design. <b>2020</b> , 13, 6173	7
339	The effect of a ruthenium precursor on the low-temperature ammonia synthesis activity over Ru/CeO. <b>2020</b> , 49, 17143-17146	7
338	Three-Dimensional Carbonaceous Aerogels Embedded with Rh-SrTiO <sub>3</sub> for Enhanced Hydrogen Evolution Triggered by Efficient Charge Transfer and Light Absorption. <b>2020</b> , 3, 12134-12147	22
337	Amidoboranes and hydrazinidoboranes: State of the art, potential for hydrogen storage, and other prospects. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 30731-30755	6.7 9
336	Thermo-Reversible Gelation of Aqueous Hydrazine for Safe Storage of Hydrazine. <b>2020</b> , 8, 53	
335	Novel MOF-Derived Nickel Nitride as High-Performance Bifunctional Electrocatalysts for Hydrogen Evolution and Urea Oxidation. <b>2020</b> , 8, 7414-7422	50



334	High-Performance Electrocatalytic Conversion of N to NH Using 1T-MoS Anchored on TiC MXene under Ambient Conditions. <b>2020</b> , 12, 26060-26067		62
333	Functionalized Graphitic Carbon Nitride Decorated with Palladium: an Efficient Heterogeneous Catalyst for Hydrogenation Reactions Using KHCO as a Mild and Noncorrosive Source of Hydrogen. <b>2020</b> , 5, 12302-12312		7
332	Ab initio predictions for the reaction mechanism and orbital topological properties of the formation of Neptunimine, Plutonimine, and its side products. <b>2020</b> , 26, 163		
331	N-Sorption Capability of Al <sub>2</sub> O <sub>3</sub> -Supported Mn-/Fe-Based Nitrogen Carriers during Chemical Looping Ammonia Synthesis Technology. <b>2020</b> , 34, 10247-10255		6
330	A Review of Composite/Hybrid Electrocatalysts and Photocatalysts for Nitrogen Reduction Reactions: Advanced Materials, Mechanisms, Challenges and Perspectives. <b>2020</b> , 3, 506-540		23
329	Protonic ceramic electrolysis cells for fuel production: a brief review. <b>2020</b> , 57, 480-494		11
328	Recent Advances and Challenges of Electrocatalytic N Reduction to Ammonia. <b>2020</b> , 120, 5437-5516		287
327	Environmental evaluation of european ammonia production considering various hydrogen supply chains. <b>2020</b> , 130, 109964		33
326	Improved hydrogen storage kinetics of Mg-based alloys by substituting La with Sm. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 21588-21599	6.7	10
325	Progress and Prospective of Nitrogen-Based Alternative Fuels. <b>2020</b> , 120, 5352-5436		70
324	Energy and Economic Costs of Chemical Storage. <b>2020</b> , 6,		19
323	A Review for Consistent Analysis of Hydrogen Permeability through Dense Metallic Membranes. <b>2020</b> , 10,		8
322	A comparative assessment framework for sustainable production of fuels and chemicals explicitly accounting for intermittency. <b>2020</b> , 4, 3888-3903		1
321	Progress in Computational and Machine-Learning Methods for Heterogeneous Small-Molecule Activation. <b>2020</b> , 32, e1907865		23
320	Using hydrogen and ammonia for renewable energy storage: A geographically comprehensive techno-economic study. <b>2020</b> , 136, 106785		45
319	Co, Ni-based nanoparticles supported on graphitic carbon nitride nanosheets as catalysts for hydrogen generation from the hydrolysis of ammonia borane under broad-spectrum light irradiation. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 21273-21286	6.7	11
318	A highly active Ni-based anode material for urea electrocatalysis by a modified sol-gel method. <b>2020</b> , 578, 641-649		1
317	Sn dendrites for electrocatalytic N <sub>2</sub> reduction to NH <sub>3</sub> under ambient conditions. <b>2020</b> , 4, 4469-4472		43



316	Synthesis, Structure and NH <sub>3</sub> Sorption Properties of Mixed Mg <sub>1-x</sub> Mn <sub>x</sub> (NH <sub>3</sub> ) <sub>6</sub> Cl <sub>2</sub> Ammines. <b>2020</b> , 13, 2746		2
315	Heterogeneous Photocatalysis. <b>2020</b> ,		2
314	Effect of Catalyst Preparation Method on Ammonia Decomposition Reaction over Ru/MgO Catalyst. <b>2020</b> , 93, 1186-1192		5
313	Organic bases catalyze the synthesis of urea from ammonium salts derived from recovered environmental ammonia. <b>2020</b> , 10, 2834		9
312	Electrolyte Engineering for Efficient Electrochemical Nitrate Reduction to Ammonia on a Titanium Electrode. <b>2020</b> , 8, 2672-2681		88
311	Deciphering the synergy between plasma and catalyst support for ammonia synthesis in a packed dielectric barrier discharge reactor. <b>2020</b> , 53, 144003		22
310	Photocatalytic NH <sub>3</sub> Splitting on TiO <sub>2</sub> Particles Decorated with Pt/Au Bimetallic Alloy Nanoparticles. <b>2020</b> , 3, 1612-1620		21
309	A review of ammonia as a compression ignition engine fuel. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 7098-7118	6.7	109
308	Development of 1 kW-class Ammonia-fueled Solid Oxide Fuel Cell Stack. <b>2020</b> , 20, 80-88		26
307	Refining Energy Levels in ReS <sub>2</sub> Nanosheets by Low-Valent Transition-Metal Doping for Dual-Boosted Electrochemical Ammonia/Hydrogen Production. <b>2020</b> , 30, 1907376		55
306	Developing a stable high-performance soybean meal-based adhesive using a simple high-pressure homogenization technology. <b>2020</b> , 256, 120336		28
305	In situ electrochemical reduction-assisted exfoliation: conversion of BiOCl nanoplates into Bi nanosheets enables efficient electrocatalytic nitrogen fixation. <b>2020</b> , 4, 3334-3339		11
304	Porous flower-like nickel nitride as highly efficient bifunctional electrocatalysts for less energy-intensive hydrogen evolution and urea oxidation. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 14199-14207	6.7	13
303	Hydrogen storage property of as-milled La <sub>7</sub> RE <sub>3</sub> Mg <sub>80</sub> Ni <sub>10</sub> (RE = Sm, Ce) alloys. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 28163-28174	6.7	3
302	Thermal Conductivity Measurements of Liquid Ammonia by the Transient Short-Hot-Wire Method. <b>2020</b> , 41, 1		1
301	Co <sub>3</sub> (hexahydroxytriphenylene) <sub>2</sub> : A conductive metal-organic framework for ambient electrocatalytic N <sub>2</sub> reduction to NH <sub>3</sub> . <b>2020</b> , 13, 1008-1012		33
300	A sensitive and selective fluorescent probe for hydrazine with a unique nonaromatic fluorophore.. <b>2020</b> , 10, 5572-5578		6
299	NiFe-LDH/MWCNTs/NF nanohybrids as a high-performance bifunctional electrocatalyst for overall urea electrolysis. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 14660-14668	6.7	20

298	Development of a gaseous and solid-state hybrid system for stationary hydrogen energy storage. <b>2021</b> , 6, 528-537		11
297	Aluminum hydride for solid-state hydrogen storage: Structure, synthesis, thermodynamics, kinetics, and regeneration. <b>2021</b> , 52, 428-440		25
296	Investigation of ammonia and hydrogen as CO <sub>2</sub> -free fuels for heavy duty engines using a high pressure dual fuel combustion process. <b>2021</b> , 22, 3196-3208		8
295	Effect of hydrogen blending on the high temperature auto-ignition of ammonia at elevated pressure. <b>2021</b> , 287, 119563		28
294	Effect of reaction conditions and surface characteristics of Ru/CeO <sub>2</sub> on catalytic performance for ammonia synthesis as a clean fuel. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 18107-18115	6.7	12
293	The role of heterogeneous catalysts in the plasma-catalytic ammonia synthesis. <b>2021</b> , 362, 2-10		10
292	B (boron), O (oxygen) dual-doped carbon spheres as a high-efficiency electrocatalyst for nitrogen reduction. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 439-448	6.7	9
291	Electrochemical hydrogen storage performances of Mg <sub>1-x</sub> Ni <sub>x</sub> Co <sub>1-x</sub> Al-based alloys prepared by mechanical milling. <b>2021</b> , 149, 109788		1
290	Boosting formic acid dehydrogenation via the design of a Z-scheme heterojunction photocatalyst: The case of graphitic carbon nitride/Ag/Ag <sub>3</sub> PO <sub>4</sub> -AgPd quaternary nanocomposites. <b>2021</b> , 535, 147740		14
289	Electrochemical fabrication of carbon fiber-based nickel hydroxide/carbon nanotube composite electrodes for improved electro-oxidation of the urea present in alkaline solutions. <b>2021</b> , 258, 118002		6
288	Recent progress in ammonia fuel cells and their potential applications. <b>2021</b> , 9, 727-752		47
287	Boron doping and high curvature in Bi nanorolls for promoting photoelectrochemical nitrogen fixation. <b>2021</b> , 284, 119689		17
286	Green hydrogen in Europe – A regional assessment: Substituting existing production with electrolysis powered by renewables. <b>2021</b> , 228, 113649		85
285	On the implications of nitromethane – NO chemistry interactions for combustion processes. <b>2021</b> , 289, 119861		4
284	Hydrogen production by ammonia decomposition over ruthenium supported on SiC catalyst. <b>2021</b> , 94, 326-335		11
283	Development of nickel based cermet anode materials in solid oxide fuel cells – Now and future. <b>2021</b> , 1, 100003		12
282	Beyond CN – conjugated metal-free polymeric semiconductors for photocatalytic chemical transformations. <b>2021</b> , 50, 2147-2172		41
281	Development and Recent Progress on Ammonia Synthesis Catalysts for Haber-Bosch Process. <b>2021</b> , 2, 2000043		28

280	Electrocatalytic Activity of Lanthanum Chromite-Based Composite Cathode for Ammonia Synthesis from Water and Nitrogen. 1160, 65-74		
279	CuS concave polyhedral superstructures enabled efficient N <sub>2</sub> electroreduction to NH <sub>3</sub> at ambient conditions.		32
278	Electrochemical Hydrogen Storage Performance of the Nanocrystalline and Amorphous Pr-Mg-Ni-based Alloys Synthesized by Mechanical Milling. <b>2021</b> , 36, 116-126		0
277	Economies of scale in ammonia synthesis loops embedded with iron- and ruthenium-based catalysts. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> ,	6.7	4
276	Electrocatalytic activity of CoFe <sub>1.9</sub> Mo <sub>0.1</sub> O <sub>4</sub> -Ce <sub>0.8</sub> Gd <sub>0.18</sub> Ca <sub>0.02</sub> O <sub>2</sub> - $\gamma$ -Al <sub>2</sub> O <sub>3</sub> composite cathode for ammonia synthesis from water and nitrogen. <b>2021</b> , 18, 490-496		0
275	Metal-support interaction-modulated catalytic activity of Ru nanoparticles on Sm <sub>2</sub> O <sub>3</sub> for efficient ammonia decomposition. <b>2021</b> , 11, 2915-2923		4
274	Near-Infrared-Responsive Photo-Driven Nitrogen Fixation Enabled by Oxygen Vacancies and Sulfur Doping in Black TiOS Nanoplatelets. <b>2021</b> , 13, 4975-4983		19
273	Rigid anchoring of highly crystallized and uniformly dispersed Pd nanocrystals on carbon fibers for ambient electrocatalytic reduction of nitrogen to ammonia. <b>2021</b> , 50, 6975-6981		0
272	Hydrogenation of aromatic and heteroaromatic compounds is a key process for future logistics of green hydrogen using liquid organic hydrogen carrier systems. <b>2021</b> , 5, 1311-1346		11
271	Bio-electrochemical systems for sustainable energy production and environmental prospects. <b>2021</b> , 275-301		1
270	Self-Supported Nickel-Iron Layered Double Hydroxide and Multi-Walled Carbon Nanotube Composite as a Bifunctional Catalyst for Highly Efficient Overall Water Splitting. <b>2021</b> , 16, 2150003		
269	Theoretical insights into the thermal reduction of N to NH over a single metal atom incorporated nitrogen-doped graphene. <b>2021</b> , 154, 054703		1
268	Progress of Exsolved Metal Nanoparticles on Oxides as High Performance (Electro)Catalysts for the Conversion of Small Molecules. <b>2021</b> , 17, e2005383		22
267	Review on Ammonia as a Potential Fuel: From Synthesis to Economics. <b>2021</b> , 35, 6964-7029		95
266	Reduction of N to Ammonia by Phosphate Molten Salt and Li Electrode: Proof of Concept Using Quantum Mechanics. <b>2021</b> , 12, 1696-1701		1
265	Highly Dispersed Ruthenium Nanoparticles on Y <sub>2</sub> O <sub>3</sub> as Superior Catalyst for Ammonia Decomposition. <b>2021</b> , 13, 1552-1558		5
264	Accelerating H NMR Detection of Aqueous Ammonia. <b>2021</b> , 6, 5698-5704		4
263	Ammonia Sensing Performance of Polyaniline-Coated Polyamide 6 Nanofibers. <b>2021</b> , 6, 8950-8957		9

262	Numerical investigation of the effects of H <sub>2</sub> /CO/syngas additions on laminar premixed combustion characteristics of NH <sub>3</sub> /air flame. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 12016-12030	6.7	9
261	An Experimentally Verified LC-MS Protocol toward an Economical, Reliable, and Quantitative Isotopic Analysis in Nitrogen Reduction Reactions.. <b>2021</b> , 5, e2000694		6
260	Ultrasmall size FeNi Prussian blue analogue on rGO with accurate heteronuclear adsorption sites toward efficient electrochemical nitrogen fixation. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 11731-11739	6.7	3
259	Rational design on photo(electro)catalysts for artificial nitrogen looping. <b>2021</b> , 3, e12096		6
258	Renewable ammonia as an alternative fuel for the shipping industry. <b>2021</b> , 31, 100670		31
257	Synthesis of Ammonia Directly from Air and Water via a Single-Chamber Reactor Using Lanthanum Chromite-Based Composite as an Electrocatalyst. 32, 35-44		
256	Plasma ammonia synthesis over mesoporous silica SBA-15. <b>2021</b> , 54, 264003		7
255	Engineering electrocatalyst for low-temperature N <sub>2</sub> reduction to ammonia. <b>2021</b> , 44, 136-167		11
254	Vacancy Engineering in Semiconductor Photocatalysts: Implications in Hydrogen Evolution and Nitrogen Fixation Applications. <b>2021</b> , 31, 2009807		46
253	Investigation of a hybrid thermochemical Cu-Cl cycle, carbon capturing, and ammonia production process. <b>2021</b> , 144, 1907-1923		0
252	A review on plasmonic nanoparticle-semiconductor photocatalysts for water splitting. <b>2021</b> , 294, 126200		18
251	A near infrared ratiometric fluorescent probe with aggregation induced emission (AIE) characteristics for hydrazine detection in vitro and in vivo. <b>2021</b> , 188, 109177		8
250	Production of ammonia as potential hydrogen carrier: Review on thermochemical and electrochemical processes. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 14455-14477	6.7	13
249	Review of the Decomposition of Ammonia to Generate Hydrogen.		16
248	Cation doped cerium oxynitride with anion vacancies for Fe-based catalyst with improved activity and oxygenate tolerance for efficient synthesis of ammonia. <b>2021</b> , 285, 119843		6
247	Alternative fuel options for low carbon maritime transportation: Pathways to 2050. <b>2021</b> , 297, 126651		41
246	Rational Design of Electrocatalysts Comprising Single-Atom-Modified Covalent Organic Frameworks for the N <sub>2</sub> Reduction Reaction: A First-Principles Study. <b>2021</b> , 125, 10983-10990		9
245	Scaling up Metal Hydrides for Real-Scale Applications: Achievements, Challenges and Outlook. <b>2021</b> , 9, 37		0

244	Catalytic effect comparison of TiO <sub>2</sub> and La <sub>2</sub> O <sub>3</sub> on hydrogen storage thermodynamics and kinetics of the as-milled La-Sm-Mg-Ni-based alloy. <b>2021</b> , 9, 2063-2063		0
243	CeO <sub>2</sub> and TiO <sub>2</sub> support material effects on NH <sub>3</sub> decomposition pathway mechanism over Cu <sub>2</sub> Zn catalysts. <b>2021</b> , 215, 106752		2
242	On the Structural Transformation of Ni/BaH <sub>2</sub> During a N <sub>2</sub> -H <sub>2</sub> Chemical Looping Process for Ammonia Synthesis: A Joint In Situ Inelastic Neutron Scattering and First-Principles Simulation Study. <b>2021</b> , 64, 685-692		2
241	Ru Nanoparticles on Pr <sub>2</sub> O <sub>3</sub> as an Efficient Catalyst for Hydrogen Production from Ammonia Decomposition. 1		3
240	Plasmonic Catalysis for N <sub>2</sub> Fixation. <b>2021</b> , 165-189		
239	Hydrogen energy: development prospects and materials. <b>2021</b> , 90, 627-643		21
238	Semi-metal 1T' phase MoS <sub>2</sub> nanosheets for promoted electrocatalytic nitrogen reduction. <b>2021</b> , 3, e12122		6
237	H <sub>2</sub> production via ammonia decomposition in a catalytic membrane reactor. <b>2021</b> , 216, 106772		23
236	Catalytic effects of TiO <sub>2</sub> on hydrogen storage thermodynamics and kinetics of the as-milled Mg-based alloy. <b>2021</b> , 176, 111118		5
235	Plasmon-Enhanced Electrocatalysis. <b>2021</b> , 261-293		1
234	A Comprehensive Review on the Recent Development of Ammonia as a Renewable Energy Carrier. <b>2021</b> , 14, 3732		7
233	Recent progress towards solar energy integration into low-pressure green ammonia production technologies. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 25121-25136	6.7	1
232	Photocatalytic Fixation of Molecular Nitrogen in Systems Based on Graphite-Like Carbon Nitride: a Review. <b>2021</b> , 57, 85		1
231	A Theoretical Study on Reversible Solid Oxide Cells as Key Enablers of Cyclic Conversion between Electrical Energy and Fuel. <b>2021</b> , 14, 4517		
230	Recent Advances in Plasmonic Photocatalysis Based on TiO and Noble Metal Nanoparticles for Energy Conversion, Environmental Remediation, and Organic Synthesis. <b>2021</b> , e2101638		39
229	Sustainable Biological Ammonia Production towards a Carbon-Free Society. <b>2021</b> , 13, 9496		1
228	Route to zero emission shipping: Hydrogen, ammonia or methanol?. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 28282-28297	6.7	20
227	Assessment of ammonia as energy carrier in the use with reversible solid oxide cells. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 30112-30123	6.7	3

226	Improvement of substituting La with Ce on hydrogen storage thermodynamics and kinetics of Mg-based alloys. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 28719-28733	6.7	5
225	Construction of recombinant Escherichia coli producing nitrogenase-related proteins from Azotobacter vinelandii. <b>2021</b> , 85, 2209-2216		1
224	Advances in Electrochemical Ammonia Synthesis Beyond the Use of Nitrogen Gas as a Source. <b>2021</b> , 86, 1211-1224		9
223	Electrocatalytic oxidation of ammonia in the neutral medium using Cu <sub>2</sub> O.CuO film immobilized on glassy carbon surface. <b>2021</b> , 897, 115592		0
222	Thermodynamic and environmental analysis of solar-driven supercritical water gasification of algae for ammonia synthesis and power production. <b>2021</b> , 243, 114409		4
221	A bis-pyrene chalcone based fluorescent material for ratiometric sensing of hydrazine: An acid/base molecular switch and solid-state emitter. <b>2021</b> , 1178, 338807		5
220	Lithium-based Loop for Ambient-Pressure Ammonia Synthesis in a Liquid Alloy-Salt Catalytic System. <b>2021</b> , 14, 4697-4707		2
219	Progress in green ammonia production as potential carbon-free fuel. <b>2021</b> , 299, 120845		28
218	An option for green and sustainable future: Electrochemical conversion of ammonia into nitrogen. <b>2021</b> , 60, 384-402		10
217	Enhancement of ammonia combustion with partial fuel cracking strategy: Laminar flame propagation and kinetic modeling investigation of NH <sub>3</sub> /H <sub>2</sub> /N <sub>2</sub> /air mixtures up to 10 atm. <b>2021</b> , 231, 111472		16
216	Development of a H <sub>2</sub> -permeable Pd <sub>60</sub> Cu <sub>40</sub> -based composite membrane using a reverse build-up method. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 36291-36291	6.7	2
215	Ammonia as a carrier for hydrogen production by using lanthanum based perovskites. <b>2021</b> , 246, 114681		5
214	Single transition metal atom modified MoSe <sub>2</sub> as a promising electrocatalyst for nitrogen Fixation: A first-principles study. <b>2021</b> , 780, 138939		3
213	Electrochemical reduction of nitrogen to ammonia: Progress, challenges and future outlook. <b>2021</b> , 29, 100808		0
212	Design and synthesis of a novel Turn-on fluorescent probe based on benzofuran-3(2H)-one for detection of hydrazine in water samples and biological systems. <b>2021</b> , 194, 109587		2
211	Process integration, energy and exergy analyses of a novel integrated system for cogeneration of liquid ammonia and power using liquefied natural gas regasification, CO <sub>2</sub> capture unit and solar dish collectors. <b>2021</b> , 9, 106374		2
210	Progress of ship exhaust gas control technology. <b>2021</b> , 799, 149437		4
209	Experimental and numerical study on premixed partially dissociated ammonia mixtures. Part II: Numerical study of premixed combustion characteristics. <b>2021</b> , 306, 121660		2

208	A comparison study of hydrogen storage performances of as-cast La <sub>10</sub> -RE Mg <sub>80</sub> Ni <sub>10</sub> (x = 0 or 3; RE = Sm or Ce) alloys. <b>2021</b> , 884, 160905	4
207	Modelling and simulation of catalytic ammonia decomposition over Ni-Ru deposited on 3D-printed CeO <sub>2</sub> . <b>2022</b> , 427, 131756	3
206	Application of Membrane in Reaction Engineering for Green Synthesis. <b>2021</b> , 163-171	
205	Fuel Cell Power Systems for Maritime Applications: Progress and Perspectives. <b>2021</b> , 13, 1213	26
204	Compositional flexibility in Li-N-H materials: implications for ammonia catalysis and hydrogen storage. <b>2021</b> , 23, 15091-15100	2
203	Comprehensive insights into synthetic nitrogen fixation assisted by molecular catalysts under ambient or mild conditions. <b>2021</b> , 50, 5201-5242	21
202	In situ preparation of ultrafine Ru nanocatalyst supported on nitrogen-doped layered double hydroxide by nitrogen glow discharge plasma for catalytic hydrogenation of N-ethylcarbazole. <b>2020</b> , 34, e5777	5
201	Reactor Design, Modelling and Process Intensification for Ammonia Synthesis. <b>2020</b> , 17-48	8
200	Metal Hydrides for Energy Storage. <b>2018</b> , 1-36	2
199	Electrochemical hydrogen storage behaviors of as-milled Mg <sub>70</sub> Ni <sub>10</sub> Co <sub>10</sub> Al-based alloys applied to Ni-MH battery. <b>2020</b> , 342, 136123	8
198	Plasma Activated Electrochemical Ammonia Synthesis from Nitrogen and Water. <b>2021</b> , 6, 313-319	16
197	Au nanoparticle-embedded, nitrogen-deficient hollow mesoporous carbon nitride spheres for nitrogen photofixation. <b>2020</b> , 8, 16218-16231	38
196	Improved ammonia production from soybean residues by cell surface-displayed l-amino acid oxidase on yeast. <b>2021</b> , 85, 972-980	2
195	Ni <sub>3</sub> S <sub>2</sub> /MWCNTs/NF Hybrid Nanostructure as Effective Bifunctional Electrocatalysts for Urea Electrolysis Assisted Hydrogen Evolution. <b>2020</b> , 167, 126514	4
194	Construction of engineered yeast producing ammonia from glutamine and soybean residues (okara). <b>2020</b> , 10, 70	5
193	Efficient ammonia production from food by-products by engineered Escherichia coli. <b>2020</b> , 10, 150	3
192	Direct ammonia fueled solid oxide fuel cells: A comprehensive review on challenges, opportunities and future outlooks. <b>2020</b> , 70-91	3
191	Hydrogen production, storage and delivery in regards to automotive applications [A brief review]. <b>2021</b> ,	0



190	Ammonia Synthesis at Ambient Conditions via Electrochemical Atomic Hydrogen Permeation. <b>2021</b> , 6, 3817-3823	7
189	Numerical analysis on the combustion characteristics of NH <sub>3</sub> /H <sub>2</sub> /air flames with elevated initial pressure and temperature. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> ,	6.7 1
188	Assessment of Sieverts Law Assumptions and " Values in Palladium Membranes: Experimental and Theoretical Analyses. <b>2021</b> , 11,	2
187	Decarbonization in ammonia production, new technological methods in industrial scale ammonia production and critical evaluations. <b>2021</b> , 7, e08257	2
186	An Efficient Symmetric Electrolyzer Based On Bifunctional Perovskite Catalyst for Ammonia Electrolysis. <b>2021</b> , 8, e2101299	7
185	Subcomponent self-assembly of a Fe(II) based mononuclear complex for potential NH <sub>3</sub> sensing applications. <b>2021</b> , 242, 1	1
184	A Review on Combustion Characteristics of Ammonia as a Carbon-Free Fuel. <b>2021</b> , 9,	4
183	Experimental Results Using Ammonia Plus Hydrogen in a S.I. Engine. <b>2013</b> , 65-76	
182	Implications of Diurnal and Seasonal Variations in Renewable Energy Generation for Large Scale Energy Storage. <b>2016</b> , 283-307	
181	Types of hydrogen storage materials. <b>2018</b> , 374-388	
180	A Study on Ammonia Reforming Catalyst and Reactor Design for 10 kW Class Ammonia-Hydrogen Dual-Fuel Engine. <b>2020</b> , 31, 372-379	1
179	Synergistic Effect of Graphdiyne-based Electrocatalysts. 1	3
178	Tuning metal catalysts via nitrogen-doped nanocarbons for energy chemistry: From metal nanoparticles to single metal sites. <b>2021</b> , 3, 100066	3
177	Capacity of Ammonia Borane to Store Hydrogen. <b>2022</b> , 357-365	0
176	Effect of the biaxial strain on the electronic structure, quantum capacitance of NH <sub>3</sub> adsorption on pristine Hf <sub>2</sub> CO <sub>2</sub> MXene using first-principles calculations. <b>2022</b> , 575, 151659	0
175	Spontaneous N formation by a diruthenium complex enables electrocatalytic and aerobic oxidation of ammonia. <b>2021</b> , 13, 1221-1227	5
174	Renewable Ammonia as an Energy Fuel for Ocean Exploration and Transportation. <b>2020</b> , 54, 126-136	1
173	Ammonia decomposition in the thermochemical waste-heat recuperation systems: A view from low and high heating value. <b>2022</b> , 251, 114959	3



172	Effect of coexistence of vacancy and strain on the electronic properties of NH <sub>3</sub> adsorption on the HF <sub>2</sub> CO <sub>2</sub> MXene from first-principles calculations. <b>2022</b> , 196, 110774		2
171	Comparative performance analysis of a direct ammonia-fuelled anode supported flat tubular solid oxide fuel cell: A 3D numerical study. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> ,	6.7	1
170	Green hydrogen-based pathways and alternatives: Towards the renewable energy transition in South America's regions Part B. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 47, 1-1	6.7	0
169	Recovery of ammonia from simulated membrane contactor effluent using bipolar membrane electrodialysis. <b>2021</b> , 644, 120081		4
168	Development of zeolite-based catalyst for enhancement hydrogen production from ammonia decomposition. <b>2021</b> ,		0
167	Experimental and numerical study on premixed partially dissociated ammonia mixtures. Part I: Laminar burning velocity of NH <sub>3</sub> /H <sub>2</sub> /N <sub>2</sub> /air mixtures. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 47, 4171-4171	6.7	3
166	One-step synthesis of Ni/yttrium-doped barium zirconates catalyst for on-site hydrogen production from NH <sub>3</sub> decomposition. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 47, 2608-2608	6.7	0
165	Micro-/nanostructure evolution of C/SiFeO(N,C) polymer-derived ceramic papers pyrolyzed in a reactive ammonia atmosphere.		0
164	Carbon Dioxide Utilization to Energy and Fuel: Hydrothermal CO <sub>2</sub> Conversion. <b>2022</b> , 243-252		
163	Selective decomposition of hydrazine over metal free carbonaceous materials.. <b>2022</b> ,		0
162	Comparative sustainability assessment of a hydrogen supply network for hydrogen refueling stations in Korea from a techno-economic and lifecycle assessment perspective. <b>2021</b> , 23, 9625-9639		5
161	The future potential hydrogen demand in energy-intensive industries - a site-specific approach applied to Germany. <b>2022</b> , 252, 115052		1
160	BiS quantum dots in situ grown on MoS nanoflowers: An efficient electron-rich interface for photoelectrochemical N reduction.. <b>2021</b> , 611, 294-305		5
159	One-dimensional screw-like MoS <sub>2</sub> with oxygen partially replacing sulfur as an electrocatalyst for the N <sub>2</sub> reduction reaction. <b>2022</b> , 433, 134504		5
158	Platinum Nanoparticles Loaded on Pristine and Boron Oxide Modified Carbon Nano-Onions for Enhanced Ammonia Electrooxidation in Alkaline Direct Ammonia Fuel Cells.		
157	Hydrogen strategy as an energy transition and economic transformation avenue for natural gas exporting countries: Qatar as a case study. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> , 47, 4977-5009	6.7	2
156	Effect of Nickel Precursor on the Catalytic Performance of Graphene Aerogel-Supported Nickel Nanoparticles for the Production of CO <sub>x</sub> -free Hydrogen by Ammonia Decomposition. 2100794		1
155	DFT study of NH <sub>3</sub> adsorption on 2D monolayer MXenes (M <sub>2</sub> C, M = Cr, Fe) via oxygen functionalization: Suitable materials for gas sensors. <b>2022</b> , 31, 100329		3

154	3D flower-like zinc cobaltite for electrocatalytic reduction nitrate to ammonia under ambient condition.. <b>2021</b> ,		0
153	Review of the Current Status of Ammonia-Blended Hydrogen Fuel Engine Development. <b>2022</b> , 15, 1023		2
152	Research progress and applications of nickel-based catalysts for electrooxidation of urea. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> , 47, 7693-7712	6.7	1
151	Efficient electrocatalytic reduction of N <sub>2</sub> to ammonia at ambient conditions with municipal sludge-derived porous carbon codoped with multiple heteroatoms. <b>2022</b> , 408, 139934		1
150	Formation of the N≡N Triple Bond from Reductive Coupling of a Paramagnetic Diruthenium Nitrido Compound.. <b>2022</b> ,		1
149	Freight. <b>2022</b> , 91-102		
148	Study on Combustion Characteristics of Hydrogen Addition on Ammonia Flame at a Porous Burner.		
147	An Unveiled Electrocatalysis Essence of NiCo Hydroxides through in Situ Raman Spectroscopy for Urea Oxidation. 2101010		2
146	Numerical analysis of methanol steam reforming reactor heated by catalytic combustion for hydrogen production. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	2
145	Photoelectrocatalytic nitrogen fixation with Vo-BiOBr/TiO <sub>2</sub> heterostructured photoelectrode as photocatalyst. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	0
144	Decomposition studies of NH <sub>3</sub> and ND <sub>3</sub> in presence of H <sub>2</sub> and D <sub>2</sub> with Pt/Al <sub>2</sub> O <sub>3</sub> and Ru/Al <sub>2</sub> O <sub>3</sub> catalysts. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> , 47, 14130-14140	6.7	0
143	Metal chlorides-promoted ammonia absorption of deep eutectic solvent. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	1
142	Exsolution in Ni-doped lanthanum strontium titanate: a perovskite-based material for anode application in ammonia-fed Solid Oxide Fuel Cell. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> , 47, 13921-13932	6.7	0
141	Three-dimensional numerical simulation and experimental validation on ammonia and hydrogen fueled micro tubular solid oxide fuel cell performance. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	0
140	Proposal and surrogate-based cost-optimal design of an innovative green ammonia and electricity co-production system via liquid air energy storage. <b>2022</b> , 314, 118965		0
139	Ammonia/Methane combustion: Stability and NO <sub>x</sub> emissions. <b>2022</b> , 241, 112071		2
138	Conceptual comparison of three novel configurations in the spherical radial flow reactor for ammonia production. <b>2022</b> , 321, 123945		1
137	MXene-A New Paradigm Toward Artificial Nitrogen Fixation for Sustainable Ammonia Generation: Synthesis, Properties, and Future Outlook. <b>2022</b> , 4, 212-245		3

- 136 Flexible Low-Temperature Ammonia Gas Sensor Based on Reduced Graphene Oxide and Molybdenum Disulfide. **2021**, 9, 345 0
- 135 Comparison between FeO/C and FeC/FeO/Fe/C Electrocatalysts for N Reduction in an Alkaline Electrolyte.. **2021**, 2
- 134 Fuel Ammonia from Fossil Energy: Hydrocarbon Utilization for Sustainable Development. **2021**, 1
- 133 Hydrogen and renewable energy: the role of membrane reactor technology. **2022**, 149-174
- 132 Techno-Economic Analysis of a Hybrid Process for Propylene and Ammonia Production. 1
- 131 Synthesis and Characterization of Novel CoCr<sub>2</sub>O<sub>4</sub>@GeO<sub>2</sub>@ZnO CoreShell Nanostructure: Focus on Electrical Conductivity and Gas Sensing Properties. 1 0
- 130 Image\_1.PDF. **2020**, 1
- 129 Single Transition Metal Atom Anchored in C<sub>3</sub>b a Efficient and Selective Electrocatalyst for Nitrogen Reduction Reaction. 0
- 128 Electrochemical ammonia synthesis: Mechanism, recent developments, and challenges in catalyst design. **2022**, 497-514 0
- 127 Ab initio simulations of  $\beta$ -band  $\beta$ -ammonium carbamate (NH<sub>4</sub><sup>+</sup>NH<sub>2</sub>CO<sub>2</sub><sup>-</sup>), and the thermal expansivity of deuterated  $\beta$ -ammonium carbamate from 4.2 to 180 K by neutron powder diffraction. **2022**, 78, 1
- 126 Stability of Cs/Ru/MgO Catalyst for Ammonia Synthesis as a Hydrogen and Energy Carrier. **2022**, 15, 3506 0
- 125 Synergistic Effect of MIL-101/Reduced Graphene Oxide Nanocomposites on High-Pressure Ammonia Uptake. 0
- 124 Fe<sub>2</sub>O<sub>3</sub> and Fe<sub>2</sub>O<sub>3</sub>/Ni(OH)<sub>2</sub> photoanodes for highly efficient photoelectrochemical water splitting and urea oxidation. **2022**, 128, 1 0
- 123 Design-based risk assessment on an ammonia-derived urban hydrogen refueling station. 1
- 122 Photocatalytic Dinitrogen Fixation with Water on High-Phosphorus-Doped Carbon Nitride with Surface Nitrogen Vacancies.. **2022**, 0
- 121 Platinum Nanoparticles Loaded on Pristine and Boron Oxide Modified Carbon Nano-Onions for Enhanced Ammonia Electrooxidation in Alkaline Direct Ammonia Fuel Cells. **2022**, 116411 2
- 120 Development and validation of rare earth modified Fe-BEA SCR catalyst for mitigation of NO<sub>x</sub> from NH<sub>3</sub> gas turbine. **2022**, 4, 100096
- 119 Thermodynamic modeling and analysis of ammonia injection pre-compressor cooling cycle: A novel scheme for high Mach number turbine engines. **2022**, 265, 115776 0

118	Lignin depolymerization and monomeric evolution during fast pyrolysis oil upgrading with hydrogen from glycerol aqueous phase reforming. <b>2022</b> , 324, 124556		
117	Electrocatalytic Ammonia Synthesis Using a Fe@Mxene Catalyst as Cathode of High-Temperature Proton-Conducting Solid Oxide Cell.		
116	A Bibliometric Analysis and Evaluation of Hydrogen Energy: The Top 100 Most Cited Studies.		
115	Identifying Regimes During Plasma Catalytic Ammonia Synthesis.		0
114	Silver-Nanoparticle-Assisted Modulation of NH <sub>3</sub> Desorption on MIL-101.		
113	A novel microbial-assisted method for sodium bicarbonate production - Cleaner production, safe and facile synthesise. <b>2022</b> ,		1
112	A comprehensive review on the material performance affected by gaseous alternative fuels in internal combustion engines. <b>2022</b> , 106507		1
111	A comprehensive review of hydrogen production and storage: A focus on the role of nanomaterials. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> , 47, 20398-20431	6.7	1
110	Ultra-pure hydrogen production via ammonia decomposition in a catalytic membrane reactor. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> , 47, 21220-21230	6.7	0
109	Critical Role of Cs Doping in the Structure and NH <sub>3</sub> Decomposition Performance of Ru/MgO Catalysts.		
108	Key Goals and Systems for Large-Scale Solar Hydrogen Production. <b>2022</b> , 1331-1347		
107	Computational Screening of Single Transition Metal Atoms Anchored to g-C <sub>3</sub> N <sub>4</sub> as Catalysts for N <sub>2</sub> Reduction to NH <sub>3</sub> .		0
106	Enhancement of ammonia synthesis activity on La <sub>2</sub> O <sub>3</sub> -supported Ru catalyst by addition of ceria. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	0
105	NH <sub>3</sub> Adsorption Performance of Silicon-Supported Metal Chlorides.		1
104	Conceptual Study and Development of an Autonomously Operating, Sailing Renewable Energy Conversion System. <b>2022</b> , 15, 4434		
103	Effects of MgCl <sub>2</sub> loading on ammonia capacity of activated carbon for application in temperature swing adsorption, pressure swing adsorption, and pressure-temperature swing adsorption process.		1
102	Integrated gas expansion and activation strategy to prepare shaddock peel-derived nitrogen doped honeycomb carbon for high performance supercapacitor.		0
101	Method for evaluating the performance of catalytic reactions using renewable-energy-derived materials. <b>2022</b> , 12,		

- 100 Ammonia: A versatile candidate for the use in energy storage systems. **2022**, 194, 955-977 1
- 99 Electrooxidation of ammonia on A-site deficient perovskite oxide  $\text{La}_{0.9}\text{Ni}_{0.6}\text{Cu}_{0.35}\text{Fe}_{0.05}\text{O}_{3-\delta}$  for wastewater treatment. **2022**, 297, 121451 3
- 98 Phase-Separated CuAg Alloy Interfacial Stress Induced Cu Defects for Efficient  $\text{N}_2$  Activation and Electrocatalytic Reduction.
- 97 CoTeAlO mesoporous catalysts for hydrogen generation via ammonia decomposition. *International Journal of Hydrogen Energy*, **2022**, 6.7
- 96 Ammonia decomposition over Ru catalysts supported on alumina with different crystalline phases. **2022**, 0
- 95 Effects of Stearic Acid Modification on RuBaMgO Interaction and the Underlying Mechanism. **2022**, 7, 0
- 94 Photocatalyzed Production of Urea as a Hydrogen Storage Material by  $\text{TiO}_2$  Based Materials. **2022**, 2, 539-562
- 93 Oxygen Vacancy-Rich  $\text{La}_{0.5}\text{Sr}_{1.5}\text{Ni}_{0.9}\text{Cu}_{0.1}\text{O}_{4-\delta}$  as a High-Performance Bifunctional Catalyst for Symmetric Ammonia Electrolyzer. 2204881 3
- 92 Hydrogen production from ammonia-rich combustion for fuel reforming under high temperature and high pressure conditions. **2022**, 327, 124830 0
- 91 Ammonia Decomposition in the Process Chain for a Renewable Hydrogen Supply. 0
- 90 Preparation and immobilisation of Brookite-type  $\text{Ti}^{3+}$ - $\text{TiO}_2$  for photocatalytic ammonia synthesis from  $\text{N}_2$  and  $\text{H}_2\text{O}$ . **2022**, 154328
- 89 Demonstration of no catalytical activity of Fe-N-C and Nb-N-C electrocatalysts toward nitrogen reduction using in-line quantification. 0
- 88 Catalysts for electrochemical ammonia oxidation: Trend, challenge, and promise.
- 87 Molecular Electrochemical Reductive Splitting of Dinitrogen with a Molybdenum Complex\*\*.
- 86 In-situ Investigations of  $\text{Co@Al}_2\text{O}_3$  Ammonia Decomposition Catalysts: The Interaction between Support and Catalyst.
- 85 Constructing ternary deep eutectic solvents with multiple sites for ammonia storage. **2022**, 1
- 84 A Rearrangement Reaction to Yield a  $\text{NH}_4^+$  Ion Driven by Polyoxometalate Formation.
- 83 Molecular Electrochemical Reductive Splitting of Dinitrogen with a Molybdenum Complex\*\*.

82	Critical role of Cs doping in the structure and NH <sub>3</sub> decomposition performance of Ru/MgO catalysts. <b>2022</b> , 644, 118806	0
81	Evaluation of green hydrogen carriers: A multi-criteria decision analysis tool. <b>2022</b> , 168, 112764	0
80	A smartphone-adaptable chromogenic and fluorogenic sensor for rapid visual detection of toxic hydrazine in the environment. <b>2022</b> , 283, 121765	0
79	Techno-Economic Analysis of Hydrogen Storage Technologies for Railway Engineering: A Review. <b>2022</b> , 15, 6467	0
78	Ammonia as an alternative fuel for vehicular applications: Paving the way for adsorbed ammonia and direct ammonia fuel cells. <b>2022</b> , 376, 133960	0
77	Improved photocatalytic activity of Bi <sub>2</sub> MoO <sub>6</sub> by modifying the halogen ions (Cl <sup>-</sup> /Br <sup>-</sup> or I <sup>-</sup> ) for photoreduction of N <sub>2</sub> into NH <sub>3</sub> . <b>2022</b> , 547, 231990	0
76	Ammonia as hydrogen carrier: Advances in ammonia decomposition catalysts for promising hydrogen production. <b>2022</b> , 169, 112918	0
75	Recent progress in Pt-based electrocatalysts for ammonia oxidation reaction. <b>2022</b> , 29, 101640	1
74	Phase-separated CuAg alloy interfacial stress induced Cu defects for efficient N <sub>2</sub> activation and electrocatalytic reduction. <b>2023</b> , 320, 121915	0
73	Experimental and numerical study on laminar burning velocity and premixed combustion characteristics of NH <sub>3</sub> /C <sub>3</sub> H <sub>8</sub> /air mixtures. <b>2023</b> , 331, 125936	0
72	A symmetric direct ammonia fuel cell using ternary NiCuFe alloy embedded in a carbon network as electrodes. <b>2022</b> , 10, 18701-18713	3
71	Catalytic Decomposition of Hydrazine and Hydrazine Derivatives to Produce Hydrogen-Containing Gas Mixtures: A Review. <b>2022</b> , 63, 339-350	0
70	Characterization of Electrochemical Ammonia Electrolysis Using a Platinum Electrode for Anodic Reaction. <b>2022</b> , 33, 337-342	0
69	Synergetic storage of ammonia over Al quantum dots embedded graphene sheets: A first principles perspective. <b>2022</b> ,	0
68	Materials Research Directions Toward a Green Hydrogen Economy: A Review. <b>2022</b> , 7, 32908-32935	1
67	Study on combustion characteristics of hydrogen addition on ammonia flame at a porous burner. <b>2022</b> , 125613	0
66	Electrochemical Promotion and Related Phenomena During Ammonia Synthesis. <b>2023</b> , 303-331	0
65	Recent advances in ammonia synthesis technologies: Toward future zero carbon emissions. <b>2022</b> ,	0

64	Enhanced Photocatalytic Activity of Titanium Dioxide in Nitrogen Fixation by Photon Localization Effect of SiO <sub>2</sub> Opal Photonic Crystal.	0
63	FeS <sub>2</sub> nanoparticles/reduced graphene oxide: an efficient electrocatalyst for nitrate electroreduction to ammonia.	1
62	Effect of the Active Metal on the NO <sub>x</sub> Formation during Catalytic Combustion of Ammonia SOFC Off-Gas. <b>2022</b> , 12, 1186	0
61	Theoretical and Comparative Analysis of Graphdiyne and Confined Flexible Nitrogen-Doped Graphdiyne-Supported Single-Atom Catalysts for Electrochemical Nitrogen Reduction. <b>2022</b> , 126, 18282-18291 <sup>0</sup>	0
60	Electrochemical oxidation of meglumine in a pharmaceutical formulation using a nanocomposite anode. <b>2022</b> , 141457	0
59	Characteristics of NH <sub>3</sub> /H <sub>2</sub> blend as carbon-free fuels: A review. <b>2022</b> ,	0
58	Ruthenium Catalyst for Ammonia Decomposition. <b>2023</b> , 375-389	0
57	Theoretical study on Fe-M (M = Mo, Ni, Pt) bimetallic catalysts to promote ammonia decomposition. <b>2022</b> , 808, 140134	0
56	Recent development in Power-to-X: Part I - A review on techno-economic analysis. <b>2022</b> , 56, 105861	1
55	Magnesium-promoted Ni/USY catalysts prepared via surfactant-assisted melt infiltration for ammonia decomposition. <b>2023</b> , 608, 155244	0
54	Amorphous Nickel-Iron Hydroxide Nanosheets for Effective Electroreduction of Nitrate to Ammonia.	0
53	Biohydrogen Production in Microbial Electrolysis Cells Utilizing Organic Residue Feedstock: A Review. <b>2022</b> , 15, 8396	1
52	Research on the offshore adaptability of new offshore ammonia-hydrogen coupling storage and transportation technology. <b>2022</b> , 201, 700-711	0
51	Characterisation of direct ammonia proton conducting tubular ceramic fuel cells for maritime applications. <b>2022</b> , 11, 352-363	0
50	Catalysis of Sodium Alloys for Ammonia Synthesis around Atmospheric Pressure. <b>2022</b> , 5, 15282-15289	0
49	Hydrogen Technology Development and Policy Status by Value Chain in South Korea. <b>2022</b> , 15, 8983	1
48	Investigating the effects of reactant gas flow geometrical shape on the performance of solid oxide fuel cell. <b>2022</b> , 15, 323-332	0
47	Design of ammonia oxidation electrocatalysts for efficient direct ammonia fuel cells. <b>2022</b> , 100093	0

- 46 Efficient electrocatalysts refined from metal-dimer-anchored PC6 monolayers for NO reduction to ammonia. **2022**, ○
- 45 Recent Advances in NH<sub>3</sub> Synthesis with Chemical Looping Technology. **2022**, 61, 18215-18231 ○
- 44 Thermocatalytic Ammonia Decomposition Status and Current Research Demands for a Carbon-Free Hydrogen Fuel Technology. ○
- 43 Preparation of nickel-copper layered double hydroxide on nickel foam as a non-noble catalyst for efficient electrooxidation of ammonia. **2022**, 2390, 012072 ○
- 42 Adsorbents development for hydrogen cleanup from ammonia decomposition in a catalytic membrane reactor. **2022**, 140762 ○
- 41 Reflecting the energy transition from a European perspective and in the global context Relevance of solar photovoltaics benchmarking two ambitious scenarios. 1
- 40 Recent Progress in Computational Design of Single-Atom/Cluster Catalysts for Electrochemical and Solar-Driven N<sub>2</sub> Fixation. **2022**, 12, 15541-15575 2
- 39 Selective Electrochemical Conversion of N<sub>2</sub> to NH<sub>3</sub> in Neutral Media Using B, N-Containing Carbon with a Nanotubular Morphology. ○
- 38 Techno-economic assessment of green hydrogen and ammonia production from wind and solar energy in Iran. **2023**, ○
- 37 Ammonia Production from Clean Hydrogen and the Implications for Global Natural Gas Demand. **2023**, 15, 1623 ○
- 36 Ammonia Production Using Bacteria and Yeast toward a Sustainable Society. **2023**, 10, 82 ○
- 35 Low carbon power generation for offshore oil and gas production. **2023**, 17, 100347 ○
- 34 Efficient Ammonia Synthesis from Nitrate Catalyzed by Au/Cu with Enhanced Adsorption Ability. 2200308 ○
- 33 Optimization of a Perovskite Oxide-Based Cathode Catalyst Layer on Performance of Direct Ammonia Fuel Cells. **2023**, 15, 1029-1041 ○
- 32 Developments in gas sensing applications before and after ionic liquids. **2023**, 287-325 ○
- 31 Modeling-aided coupling of catalysts, conditions, membranes, and reactors for efficient hydrogen production from ammonia. ○
- 30 Elucidating the rate-determining step of ammonia decomposition on Ru-based catalysts using ab initio grounded microkinetic modeling. ○
- 29 Hydrogen Ionic Conductors and Ammonia Conversions. ○



- 28 A high-energy aqueous Zn/NO<sub>2</sub> electrochemical cell: a new strategy for NO<sub>2</sub> fixation and electric power generation. ○
- 27 The role of hydrogen energy: Strengths, weaknesses, opportunities, and threats. **2023**, 3-43 ○
- 26 Dramatic acceleration by visible light and mechanism of AuPd@ZIF-8-catalyzed ammonia borane methanolysis for efficient hydrogen production. 2
- 25 Molecular membrane separation: plants inspire new technologies. ○
- 24 The role of overlayers nitride electro-materials for N<sub>2</sub> reduction to ammonia. 2, ○
- 23 A novel fluorescent molecule based on 1,2,3-triazole for determination of palladium (II) and hydrazine hydrate in aqueous system. **2023**, 293, 122492 ○
- 22 Adiabatic laminar burning velocities and NO generation paths of NH<sub>3</sub>/H<sub>2</sub> premixed flames. **2023**, 108, 101225 ○
- 21 An ammonia flash break-up model based on bubble dynamics with force and energy analysis on droplet. **2023**, 342, 127841 ○
- 20 Wind energy as a source of green hydrogen production in the USA. **2023**, 7, 8-22 ○
- 19 Dispersed surface Ru ensembles on MgO(111) for catalytic ammonia decomposition. **2023**, 14, ○
- 18 Electrocatalytic ammonia synthesis on Fe@MXene catalyst as cathode of intermediate-temperature proton-conducting solid oxide cell. **2023**, ○
- 17 Reductive Oligomerization of Nitroaniline Catalyzed by Fe<sub>3</sub>O<sub>4</sub> Spheres Decorated with Group 11 Metal Nanoparticles. **2023**, 8, 7459-7469 ○
- 16 N<sub>2</sub> photofixation promoted by in situ photoinduced dynamic iodine vacancies at step edge in Bi<sub>5</sub>O<sub>7</sub>I nanotubes. ○
- 15 Hole scavenger-free nitrogen photofixation in pure water with non-metal B-doped carbon nitride: Implicative importance of B species for N<sub>2</sub> activation. **2023**, 11, 109511 ○
- 14 Recent advances and emerging applications of membrane contactors. **2023**, 461, 141948 ○
- 13 Computational design of a new palladium alloy with efficient hydrogen storage capacity and hydrogenation-dehydrogenation kinetics. **2023**, ○
- 12 Tailored Bimetallic Ni<sub>3</sub>Sn Catalyst for Electrochemical Ammonia Oxidation to Dinitrogen with High Selectivity. **2023**, 62, 3986-3992 ○
- 11 A systematic review on green hydrogen for off-grid communities: Technologies, advantages, and limitations. **2023**, ○

- 10 A systemic review of hydrogen supply chain in energy transition. ○
- 9 Narrow-Band-Gap Particulate Photocatalysts for One-Step-Excitation Overall Water Splitting. **2023**, 56, 878-888 ○
- 8 Green synthesis of ammonia from steam and air using solid oxide electrolysis cells composed of ruthenium-modified perovskite catalyst. ○
- 7 A Bibliometric Study on Research Trends in Hydrogen Production from Solar Sources Based on Scopus. **2022**, 16, e03091 ○
- 6 Short Review of Self-Powered Nitrogen Removal via Abiotic Electrochemical Catalysis. **2023**, 11, 1096 ○
- 5 Ru Nanoparticles on K Doped  $\gamma$ -Alumina with Abundant Surface Superbasic Sites for Ammonia Decomposition. ○
- 4 Grave-to-cradle upcycling of harmful algal biomass into atomically dispersed iron catalyst for efficient ammonia electrosynthesis from nitrate. **2023**, 332, 122778 ○
- 3 A techno-economic analysis of ammonia-fuelled powertrain systems for rail freight. **2023**, 119, 103739 ○
- 2 Improved hydrogen storage thermodynamics and kinetics of La<sub>0.7</sub>Ce<sub>0.1</sub>Mg<sub>0.2</sub>Ni alloy by ball milling. **2023**, 179, 111417 ○
- 1 Hydrogen storage thermodynamics and kinetics of the as-cast and milled Ce-Mg-Ni-based alloy. **2023**, 35, 106217 ○