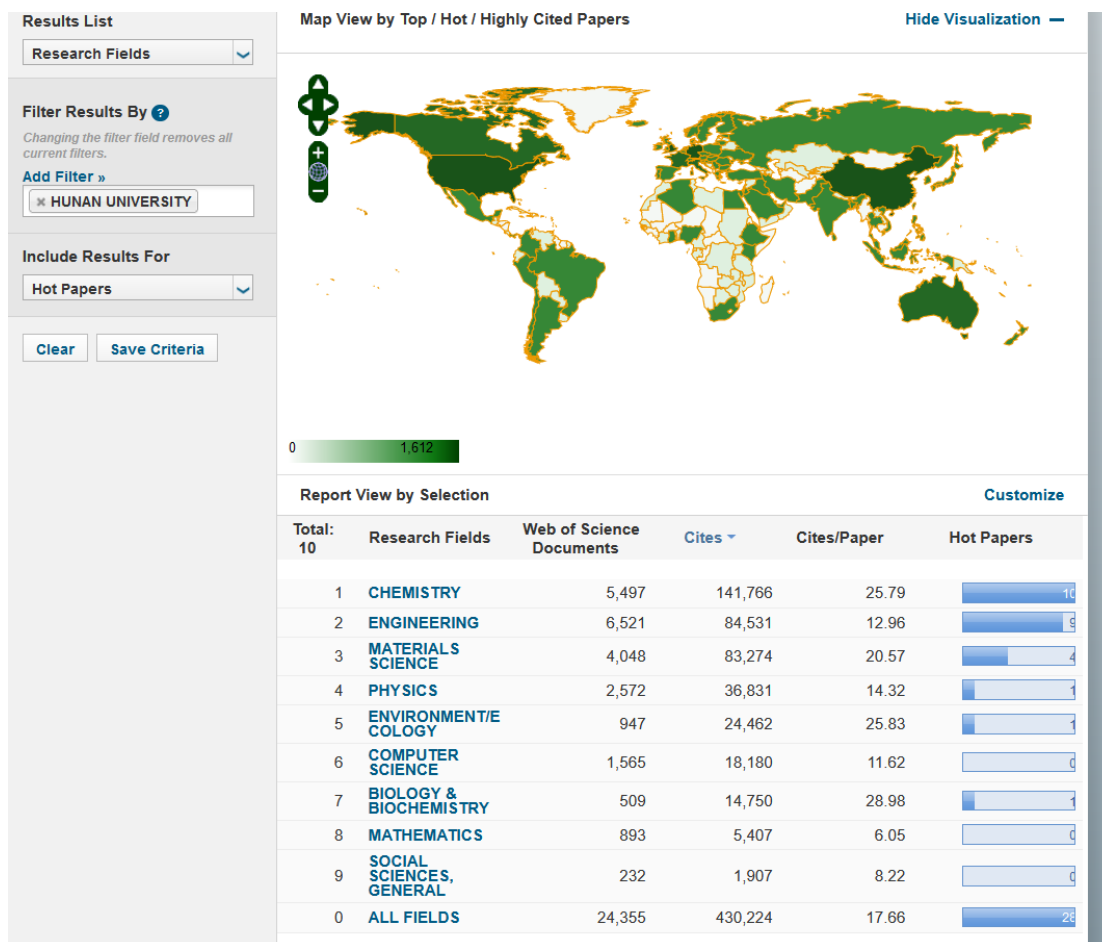


1. Essential Science Indicators for Hot papers for Hunan University on May 13, 2021



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	<div>4</div> <div>SYNERGISTIC EFFECT OF ARTIFICIAL ENZYME AND 2D NANO-STRUCTURED Bi₂WO₆ FOR ECO-FRIENDLY AND EFFICIENT BIOMIMETIC PHOTOCATALYSIS</div> <div>By: YI, H; YAN, M; HUANG, DL; et.al</div> <div>Source: APPLIED CATALYSIS B-ENVIRONMENTAL 250: 52-62 AUG 5 2019</div> <div>Research Fields: CHEMISTRY</div> <div>Times Cited: 190</div> <div>ESI Hot</div> <div>Research Front</div>
	<div>5</div> <div>GRAPHITE ANODE FOR A POTASSIUM-ION BATTERY WITH UNPRECEDENTED PERFORMANCE</div> <div>By: FAN, L; MA, RF; ZHANG, QF; et.al</div> <div>Source: ANGEWANDTE CHEMIE-INTERNATIONAL EDITION 58 (31): 10500-10505 JUL 29 2019</div> <div>Research Fields: CHEMISTRY</div> <div>Times Cited: 168</div> <div>ESI Hot</div> <div>Research Front</div>
	<div>6</div> <div>RECENT ADVANCES IN COVALENT ORGANIC FRAMEWORKS (COFs) AS A SMART SENSING MATERIAL</div> <div>By: LIU, XG; HUANG, DL; LAI, C; et.al</div> <div>Source: CHEMICAL SOCIETY REVIEWS 48 (20): 5266-5302 OCT 21 2019</div> <div>Research Fields: CHEMISTRY</div> <div>Times Cited: 116</div> <div>ESI Hot</div>

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	<div>8</div> <div>DEEP LEARNING FOR HYPERSPECTRAL IMAGE CLASSIFICATION: AN OVERVIEW</div> <div>By: LI, ST; SONG, WW; FANG, LY; et.al</div> <div>Source: IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING 57 (9): 6690-6709 SEP 2019</div> <div>Research Fields: GEOSCIENCES</div> <div>Times Cited: 114</div> <div>ESI Hot</div> <div>Research Front</div>
	<div>9</div> <div>TRACE DOPING OF MULTIPLE ELEMENTS ENABLES STABLE BATTERY CYCLING OF LiCOO₂ AT 4.6V</div> <div>By: ZHANG, JN; LI, QH; OUYANG, CY; et.al</div> <div>Source: NATURE ENERGY 4 (7): 594-603 JUL 2019</div> <div>Research Fields: ENGINEERING</div> <div>Times Cited: 112</div> <div>ESI Hot</div> <div>Research Front</div>
	<div>10</div> <div>SULFUR DOPED CARBON QUANTUM DOTS LOADED HOLLOW TUBULAR G-C₃N₄ AS NOVEL PHOTOCATALYST FOR DESTRUCTION OF ESCHERICHIA COLI AND TETRACYCLINE DEGRADATION UNDER VISIBLE LIGHT</div> <div>By: WANG, WJ; ZENG, ZT; ZENG, GM; et.al</div> <div>Source: CHEMICAL ENGINEERING JOURNAL 378: - DEC 15 2019</div> <div>Research Fields: ENGINEERING</div> <div>Times Cited: 109</div> <div>ESI Hot</div>

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	<div>12</div> <div>IDENTIFICATION OF ACTIVE SITES FOR ACIDIC OXYGEN REDUCTION ON CARBON CATALYSTS WITH AND WITHOUT NITROGEN DOPING</div> <div>By: JIA, Y; ZHANG, LZ; ZHUANG, LZ; et.al</div> <div>Source: NATURE CATALYSIS 2 (8): 688-695 AUG 2019</div> <div>Research Fields: CHEMISTRY</div> <div>Times Cited: 96</div> <div>ESI Hot</div>
	<div>13</div> <div>PEDOT:PSS FOR FLEXIBLE AND STRETCHABLE ELECTRONICS: MODIFICATIONS, STRATEGIES, AND APPLICATIONS</div> <div>By: FAN, X; NIE, WY; TSAI, SH; et.al</div> <div>Source: ADVANCED SCIENCE 6 (19): - OCT 2019</div> <div>Research Fields: PHYSICS</div> <div>Times Cited: 85</div> <div>ESI Hot</div> <div>Research Front</div>
	<div>14</div> <div>NATURE OF FESE₂/N-C ANODE FOR HIGH PERFORMANCE POTASSIUM ION HYBRID CAPACITOR</div> <div>By: GE, JM; WANG, B; WANG, J; et.al</div> <div>Source: ADVANCED ENERGY MATERIALS 10 (4): - JAN 2020</div> <div>Research Fields: MATERIALS SCIENCE</div> <div>Times Cited: 64</div> <div>ESI Hot</div> <div>Research Front</div>
	<div>15</div> <div>DISTRIBUTED MULTI-ENERGY OPERATION OF COUPLED ELECTRICITY, HEATING, AND NATURAL GAS NETWORKS</div> <div>By: XU, D; WU, QW; ZHOU, B; et.al</div> <div>Source: IEEE TRANSACTIONS ON SUSTAINABLE ENERGY 11 (4): 2457-2469 OCT 2020</div> <div>Research Fields: ENGINEERING</div> <div>Times Cited: 62</div> <div>ESI Hot</div> <div>Research Front</div>

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		By: LI, J; YANG, XD; LIU, Y; et.al Source: NATURE 579 (7799): 368-+ MAR 2020 Research Fields: MATERIALS SCIENCE	ESI Hot
	17	TAXONOMY RESEARCH OF ARTIFICIAL INTELLIGENCE FOR DETERMINISTIC SOLAR POWER FORECASTING	Times Cited: 50
		By: WANG, HZ; LIU, YY; ZHOU, B; et.al Source: ENERGY CONVERSION AND MANAGEMENT 214: - JUN 15 2020 Research Fields: ENGINEERING	ESI Hot Research Front
	18	THE UNDERLYING MECHANISM OF CALCIUM PEROXIDE PRETREATMENT ENHANCING METHANE PRODUCTION FROM ANAEROBIC DIGESTION OF WASTE ACTIVATED SLUDGE	Times Cited: 49
		By: WANG, DB; HE, DD; LIU, XR; et.al Source: WATER RESEARCH 164: - NOV 1 2019 Research Fields: ENVIRONMENT/ECOLOGY	ESI Hot Research Front

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		By: XIAO, S; CHENG, M; ZHONG, H; et.al Source: CHEMICAL ENGINEERING JOURNAL 384: - MAR 15 2020 Research Fields: ENGINEERING	ESI Hot
	20	RECENT ADVANCES IN PHOTO-ACTIVATED SULFATE RADICAL-ADVANCED OXIDATION PROCESS (SR-AOP) FOR REFRACTORY ORGANIC POLLUTANTS REMOVAL IN WATER	Times Cited: 40
		By: YANG, Q; MA, YH; CHEN, F; et.al Source: CHEMICAL ENGINEERING JOURNAL 378: - DEC 15 2019 Research Fields: ENGINEERING	ESI Hot
	21	NITROGEN-DOPED BIOCHAR FIBER WITH GRAPHITIZATION FROM BOEHMERIA NIVEA FOR PROMOTED PEROXYMONOSULFATE ACTIVATION AND NON-RADICAL DEGRADATION PATHWAYS WITH ENHANCING ELECTRON TRANSFER	Times Cited: 38
		By: YE, SJ; ZENG, GM; TAN, XF; et.al Source: APPLIED CATALYSIS B-ENVIRONMENTAL 269: - JUL 15 2020 Research Fields: CHEMISTRY	ESI Hot Research Front
	22	MOLECULAR ENGINEERING OF POLYMERIC CARBON NITRIDE FOR HIGHLY EFFICIENT PHOTOCATALYTIC OXYTETRACYCLINE DEGRADATION AND H2O2 PRODUCTION	Times Cited: 36
		By: YANG, Y; ZENG, GM; HUANG, DL; et.al Source: APPLIED CATALYSIS B-ENVIRONMENTAL 272: - SEP 5 2020 Research Fields: CHEMISTRY	ESI Hot Research Front
	23	DEFECT ENGINEERING FOR FUEL-CELL ELECTROCATALYSTS	Times Cited: 34
		By: LI, W; WANG, DD; ZHANG, YQ; et.al Source: ADVANCED MATERIALS 32 (19): - MAY 2020 Research Fields: MATERIALS SCIENCE	ESI Hot Research Front

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	25	1D POROUS TUBULAR G-C3N4 CAPTURE BLACK PHOSPHORUS QUANTUM DOTS AS 1D/0D METAL-FREE PHOTOCATALYSTS FOR OXYTETRACYCLINE HYDROCHLORIDE DEGRADATION AND HEXAVALENT CHROMIUM REDUCTION	Times Cited: 29
		By: WANG, WJ; NIU, QY; ZENG, GM; et.al Source: APPLIED CATALYSIS B-ENVIRONMENTAL 273: - SEP 15 2020 Research Fields: CHEMISTRY	ESI Hot Research Front
	26	FEATURE EXTRACTION FOR HYPERSPECTRAL IMAGERY: THE EVOLUTION FROM SHALLOW TO DEEP: OVERVIEW AND TOOLBOX	Times Cited: 24
		By: RASTI, B; HONG, DF; HANG, RL; et.al Source: IEEE GEOSCIENCE AND REMOTE SENSING MAGAZINE 8 (4): 60-88 DEC 2020 Research Fields: GEOSCIENCES	ESI Hot Research Front
	27	A REVIEW OF STUDIES USING HYDROCARBON ADSORPTION MATERIAL FOR REDUCING HYDROCARBON EMISSIONS FROM COLD START OF GASOLINE ENGINE	Times Cited: 13
		By: HAN, DD; JIAQIANG, E; DENG, YW; et.al Source: RENEWABLE & SUSTAINABLE ENERGY REVIEWS 135: - JAN 2021 Research Fields: ENGINEERING	ESI Hot Research Front
	28	SUSTAINABLE LIVESTOCK WASTEWATER TREATMENT VIA PHYTOREMEDIATION: CURRENT STATUS AND FUTURE PERSPECTIVES	Times Cited: 10
		By: HU, H; LI, X; WU, SH; et.al Source: BIORESOURCE TECHNOLOGY 315: - NOV 2020 Research Fields: BIOLOGY & BIOCHEMISTRY	ESI Hot

以上 28 篇论文中有 12 篇是环境学院的论文:

1) Shujing Ye¹, Min Yan¹, Xiaofei Tan¹, Jie Liang¹, Guangming Zeng*, Haipeng Wu*, Biao Song, Chengyun Zhou, Yang Yang, Han Wang. Facile assembled biochar-based nanocomposite with improved graphitization for efficient photocatalytic activity driven by visible light. *Applied Catalysis B: Environmental* (SCI 2019 IF=16.683), 2019, 250, 78-88 (ESI Hot Paper and ESI Highly Cited Paper and ESI Research Front, ESI Hot Paper 第 8 次上榜)

2) Huan Yi¹, Ming Yan¹, Danlian Huang¹, Guangming Zeng*, Cui Lai*, Minfang Li, Xiuqin Huo, Lei Qin, Shiyu Liu, Xigui Liu, Bisheng Li, Han Wang, Maocai Shen, Yukui Fu, Xueying Guo. Synergistic effect of artificial enzyme and 2D nano-structured Bi₂WO₆ for eco-friendly and efficient biomimetic photocatalysis. *Applied Catalysis B: Environmental* (SCI 2019 IF=16.683), 2019, 250, 52-62 (ESI Hot Paper and ESI Highly Cited Paper and ESI Research Front, ESI Hot Paper 第 5 次上榜)

3) Xigui Liu, Danlian Huang*, Cui Lai*, Guangming Zeng, Lei Qin, Han Wang, Huan Yi, Bisheng Li, Shiyu Liu, Mingming Zhang, Rui Deng, Yukui Fu, Ling Li, Wenjing Xue, Sha Chen. Recent advances in covalent organic frameworks (COFs) as a smart sensing material. *Chemical Society Reviews* (SCI 2019 IF=42.846), 2019, 48(20), 5266-5302. (ESI Hot Paper, ESI Hot Paper 第 6 次上榜).

4) Yang Yang¹, Zhuotong Zeng¹, Guangming Zeng*, Danlian Huang*, Rong Xiao*, Chen Zhang, Chengyun Zhou, Weiping Xiong, Wenjun Wang, Min Cheng, Wenjing Xue, Hai Guo, Xiang Tang, Donghui He, Ti₃C₂ Mxene/porous g-C₃N₄ interfacial Schottky junction for boosting spatial charge separation in photocatalytic H₂O₂ production, *Applied Catalysis B: Environmental* (SCI 2019 IF=16.683), 2019, 258, 117956 (ESI Hot Paper and ESI Highly Cited Paper and ESI Research Front, ESI Hot Paper 第 6 次上榜, 环境学院曾光明教授与中南大学湘雅附二医院的合作成果)

5) Wenjun Wang¹, Zhuotong Zeng¹, Guangming Zeng*, Chen Zhang*, Rong Xiao*, Chengyun Zhou, Weiping Xiong, Yang Yang, Lei Lei, Yang Liu, Danlian Huang, Min Cheng, Yaya Yang, Yukui Fu, Hanzhuo Luo, Yin Zhou, Sulfur doped carbon quantum dots loaded hollow tubular g-C₃N₄ as novel photocatalyst for destruction of *Escherichia coli* and tetracycline degradation under visible light, *Chemical Engineering Journal* (SCI 2019 IF=10.652), 2019, 378, 122132 (ESI Hot Paper and ESI Highly Cited Paper and ESI Research Front, ESI Hot Paper 第 6 次上榜, 环境学院曾光明教授与中南大学湘雅附二医院的合作成果)

6) Dongbo Wang*, Dandan He, Xuran Liu, Qiuxiang Xu, Qi Yang, Xiaoming Li, Yiwen Liu, Qilin Wang, Bing-Jie Ni, Hailong Li, The underlying mechanism of calcium peroxide pretreatment enhancing methane production from anaerobic digestion of waste activated sludge, *Water Research*, 2019, 164:114934. (SCI 2019 IF=9.130) ESI Hot Paper, ESI Hot Paper 第 2 次上榜).

7) Sa Xiao¹, Min Cheng¹, Hua Zhong*, Zhifeng Liu*, Yang Liu, Xin Yang, Qinghua Liang. Iron-mediated activation of persulfate and peroxymonosulfate in both homogeneous and heterogeneous ways: A review. *Chemical Engineering Journal* (SCI 2019 IF=10.652), 2020, 384:123265 (ESI Hot Paper, ESI Hot Paper 第 1 次上榜).

8) Qi Yang*, Yinghao Ma, Fei Chen, Fubing Yao, Jian Sun, Shana Wang, Kaixin Yi, Lihua Hou, Xiaoming Li, Dongbo Wang*, Recent advances in photo-activated sulfate radical-advanced oxidation process (SR-AOP) for refractory organic pollutants removal in water, *Chemical Engineering Journal*, (SCI 2019 IF=10.652) 2019, 378:122149 (ESI Hot Paper, ESI Hot Paper 第 1

次上榜).

9) Shujing Ye, Guangming Zeng*, Xiaofei Tan*, Haipeng Wu*, Jie Liang, Biao Song, Ning Tang, Peng Zhang, Yuanyuan Yang, Qiang Chen, Xiaopei Li. Nitrogen-doped biochar fiber with graphitization from *Boehmeria nivea* for promoted peroxymonosulfate activation and non-radical degradation pathways with enhancing electron transfer. *Applied Catalysis B: Environmental* (SCI 2019 IF=16.683). 2020.269 (118850) :1-11 (ESI Hot Paper, ESI Hot Paper 第 1 次上榜).

10) Yang Yang, Guangming Zeng*, Danlian Huang*, Chen Zhang*, Donghui He, Chengyun Zhou, Wenjun Wang, Weiping Xiong, Xiaopei Li, Bisheng Li, Wanyue Dong, Yin Zhou, Molecular engineering of polymeric carbon nitride for highly efficient photocatalytic oxytetracycline degradation and H₂O₂ production, *Applied Catalysis B: Environmental* (SCI 2019 IF=16.683), 2020, 272, 118970 (ESI Hot Paper, ESI Hot Paper 第 3 次上榜)

11) Wenjun Wang, Qiuya Niu, Guangming Zeng*, Chen Zhang*, Danlian Huang, Binbin Shao, Chengyun Zhou, Yang Yang, Yuxin Liu, Hai Guo, Weiping Xiong, Lei Lei, Shiyu Liu, Huan Yi, Sha Chen, Xiang Tang. 1D porous tubular g-C₃N₄ capture black phosphorus quantum dots as 1D/0D metal-free photocatalysts for oxytetracycline hydrochloride degradation and hexavalent chromium reduction. *Applied Catalysis B: Environmental* (SCI 2019 IF=16.683). 2020.273(119051):1-13 (ESI Hot Paper, ESI Hot Paper 第 2 次上榜)

12) Hao Hu¹, Xiang Li¹, Shaohua Wu*, Wei Lou, Chunping Yang*. Ecotoxicological risks assessment of long-term exposure to oxytetracycline for phytoremediation of swine wastewater via duckweed system. *Journal of Hazardous Materials*, 2021, 414: 125508 (SCI 2019 IF=9.038). (ESI Hot Paper, ESI Hot Paper 第 1 次上榜)