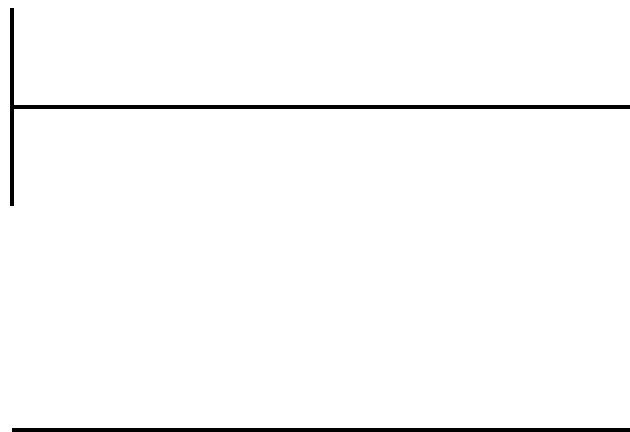


河南师范大学

# 专业学位授权点建设年度报告



2022 12 28

## 一、目标与标准

### 一 培养目标

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### 二 学位标准

## 二、基本条件

### 一 培养特色

	2000			
	2010			
2019			2021	
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### (二)师资队伍

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				2
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	20			

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### 三 科学研究

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 1 2 8  
 2 6 2 42  
 SCI 13 20

	High efficiency ternary organic solar cells via morphology regulation with asymmetric nonfused ring electron acceptor	CHEMICAL ENGINEERING JOURNAL	2022, 438, 135384	
	Semi-planar non-fullerene molecules enhance the durability of flexible perovskite solar cells	ADVANCED SCIENCE	2022, 9(2105739), 1-8	
	Flower-like open-structured polycrystalline copper with synergistic multi-crystal plane for efficient electrocatalytic reduction of nitrate to ammonia	NANO ENERGY	2022, 97, 107124	
	Ammonium cobalt phosphate with asymmetric coordination sites for enhanced electrocatalytic water oxidation	CHINESE JOURNAL OF CATALYSIS	2022, 43(7), 1955-1962	
	Novel 3D printed vortex-like flexible roller-compacted triboelectric nanogenerator for self-powered electrochemical degradation of organic contaminants	ACS APPLIED MATERIALS & INTERFACES	2022, 14(15), 17426-17433	
	Improvements in efficiency and stability of perovskite solar cells using a cesium chloride additive	ACS APPLIED MATERIALS & INTERFACES	2022, 14 (23), 26866-26872	
	Interfacial engineering of heterostructured Co(OH) <sub>2</sub> /NiPx nanosheets for enhanced oxygen evolution reaction	ADVANCED FUNCTIONAL MATERIALS	2022, 32(40), 2206407	

	Recycling of zinc-carbon batteries into MnO/ZnO/C to fabricate sustainable cathodes for rechargeable zinc-ion batteries	CHEMSUSCHEM	2022, 15 15 , e202200720	
	A corrosion-etching strategy for fabricating RuO <sub>2</sub> coupled with defective NiFeZn(OH) <sub>x</sub> for a highly efficient hydrogen evolution reaction	JOURNAL OF MATERIALS CHEMISTRY A	2022, 10(38), 20453-20463	
	Cotton-assisted dual rotor-stator triboelectric nanogenerator for real-time monitoring of crop growth environment	NANO ENERGY	2022, 101, 107578	
	Mesoporous N-rich carbon with single-Ni atoms as a multifunctional sulfur host for Li-S batteries	ANGEWANDTE CHEMIE-INTERNATIONAL EDITION	2022, 61(47), 202212680	
	$\pi$ -Conjugated carbazole cations enable wet-stable quasi-2D perovskite photovoltaics	ACS ENERGY LETTERS	2022, 7(12), 4451-4458	
	Self-sacrificial template synthesis of Fe, N co-doped porous carbon as efficient oxygen reduction electrocatalysts towards Zn-air battery application	CHINESE CHEMICAL LETTERS	2022, 33(4), 2171-2177	
	Organic compound passivation for perovskite solar cells with improving stability and photoelectric performance	SOLAR ENERGY	2022, 1(231), 414-419	
	Using fullerene as the third component to boosting the photovoltaic performances of pyran acceptor	DYES AND PIGMENTS	2022, 197, 109933	
	Insight the difference of free charge generation in two small molecular acceptor organic solar cells	SOLAR ENERGY	2022, 235, 163-169	
	Fe <sub>3</sub> S <sub>4</sub> @reduced graphene oxide composites as novel anode materials for high performance alkaline secondary batteries	JOURNAL OF ALLOYS AND COMPOUNDS	2022, 895(1), 162593	

	Gradient dynamic cross-linked photochromic multifunctional polyelectrolyte hydrogels for visual display and information storage application	POLYMER	2022, 243, 124642	
	Two strategies to achieve color adjustment of Eu <sup>2+</sup> doped garnet Lu <sub>2</sub> Mg <sub>2</sub> Al <sub>2</sub> Si <sub>2</sub> O <sub>12</sub> phosphors	JOURNAL OF LUMINESCENCE	2022, 243, 118651	
	Favorable pore size distribution of biomass-derived N, S dual-doped carbon materials for advanced oxygen reduction reaction	INTERNATIONAL JOURNAL OF HYDROGEN ENERGY	2022, 47(26), 12964-12974	

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150

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			ZL201811465403.8	2022-04-12
			ZL201811466224.6	2022-04-19
			ZL201811467449.3	2022-11-22
			ZL201811466794.5	2022-11-22

	/ g-C <sub>3</sub> N <sub>4</sub>		ZL201910417006.1	2022-03-18
			ZL201910366323.5	2022-02-08
	Fe/Fe <sub>3</sub> C		ZL202011482580.4	2022-11-11
	Fe <sub>3</sub> C		ZL202011502358.6	2022-07-29
	3D		ZL202011477194.6	2022-06-27
	/		ZL201810226733.5	2021-03-23

		ZL201610041754.0		5
		ZL201610053510.4		5

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2022

#### 四 教学科研支撑

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#### 五 奖助体系

2017



(2)

10000                      30%                      7000                      30%                      40%                      5000

(3)

6000 / /                      10                      600 / /                      100%

(4)

2014  
4% 6%

(5)

(a)

50

1000 10000

(b)

200 1000

(c)

1:1

1000

10%

500

(d)

2000

(e)

(f)

3000

### 三、人才培养

#### 一 招生选拔

2022

2022

2022

		09_002012	36	2			10
		09_002011	72	4			
		20_255001	36	2			
		21_000001	32	1			
		21_000003	14	1			
		21_250001	18	1			1
		21_250002	18	1			1
		20_250001	54	3			12
		20_250002	54	3			
		20_250003	54	3			
		20_250004	54	3			
		20_250005	54	3			

	20_250012		54	3		/
	20_250013		54	3		/
	20_250014		54	3		/
	20_250015		54	3		/
	20_250016		54	3		/
	20_250017	3D	54	3		/

#### 四 导师指导

2022

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#### 五 实践教学

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SCI

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## 六 学术交流

“ ·New Materials”

20

## 七 论文质量

1

## 八 质量保证

7.974E+001

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6.

## 十 管理服务

2

1

98%

## 十一 就业发展

95%

40%

## 四、服务贡献

### 一 科技进步



