

Expertise:

Electrochemical Energy
Storage and Conversion

科技专长:

电化学能源储存和转换

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National Research Council of Canada
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Fellow of International Society
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(国际电化学会会士)

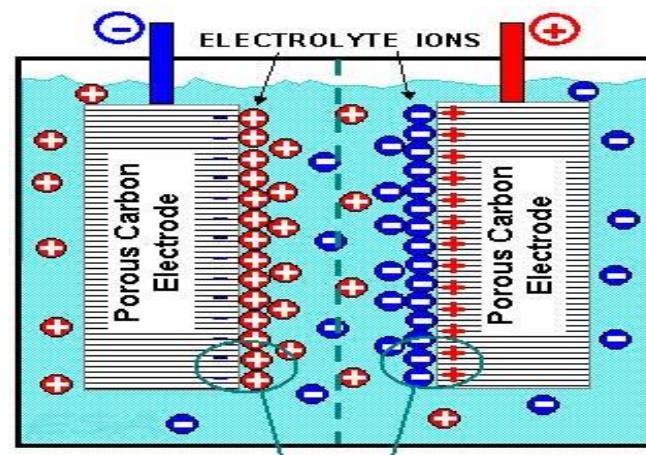
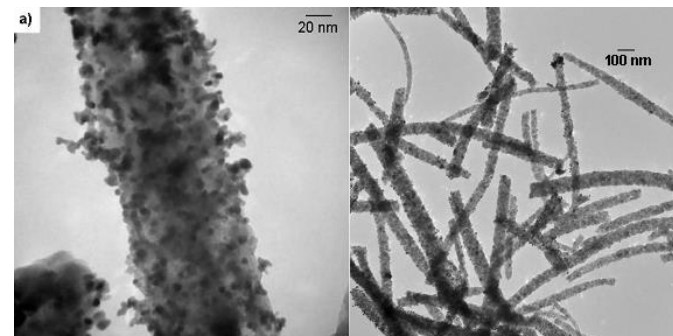
Chairman/President of International Academy
of Electrochemical Energy Science (IAOEES)
(国际电化学能源科学院主席兼总裁)

2014 年被汤姆森路透社评为“全球科学和技术领域
3000名最具影响力的科学家之一”

(The “World’s Most Influential Scientific Minds” by Thomson Reuters)

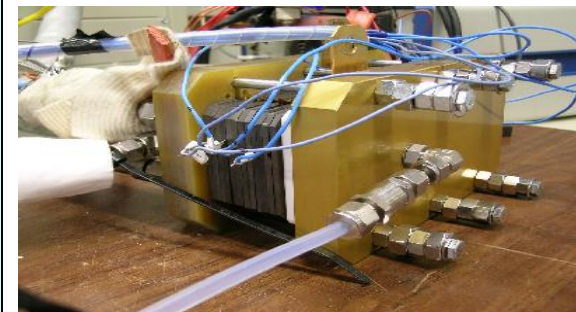
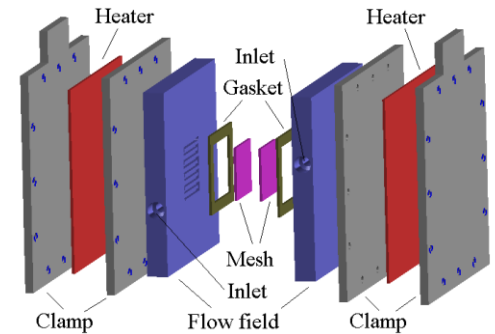
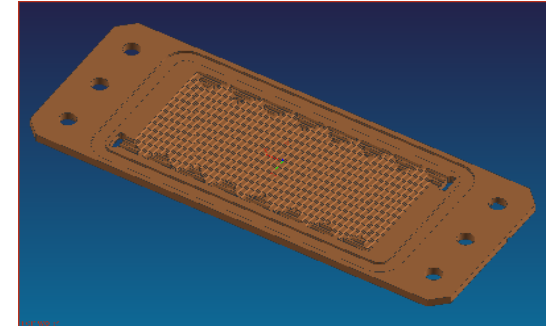
Expertise areas

- **Electrochemistry, Electrocatalysis, Photoelectrochemistry, In-situ FTIR reflection spectroscopy for electrode surfaces, Electroanalytic methods (CV, RDE, EIS, etc.), and Electrochemical sensors**
- **Nano-materials synthesis, characterization and performance validation for electrochemical energy storage and conversion**
- **Fuel cells including PEMFC, DMFC and SOFC**
- **Electrochemical supercapacitors**
- **Lithium-ion Batteries/Metal-Air batteries/Redox Flow batteries**
- **Chloro-Alkaline Electrolysis**



PEM fuel cell expertise areas:

- Non-noble metal and low Pt electrocatalysts, catalyst layer and cathode for PEM fuel cells
- High temperature PEM fuel cells
- PEM Fuel cell contamination
- Fuel cell component and stack degradation mechanisms
- PEM fuel cell cold startup
- Membrane electrode assembly (MEA) for both PEM and direct methanol fuel cells (DMFC)
- DMFC 3-1500W stacks and systems for portable power and transportation applications
- Diagnosis method development for PEMFC & DMFC cell performances (CV, EIS, GC etc.)
- Micro fuel cells



Summary of Dr. Jiujun Zhang's Publication (Citations >18000, *h-index* 62)

Publication description	Number of publications
Refereed Journal papers	~230
Books	15 (2 by Springer, 2 by Wiley, and 9 by CRC), 2 by Elsevier
Book chapters	36
USA patents	9 granted, and 7 published
Conference Proceedings	14
Oral presentations	110 (55 invited or keynote speeches, and 55 conference oral presentations)
Conference poster presentations	14
Industrial technical reports	90

Publication Highlights of Dr. Jiujun Zhang's NRC Team, Impact Factor > 4

Journal title	Number of papers	Impact factor
Chemical Reviews	1	45.6
Chemical Society Reviews	6	30.4
Nature Chemistry	1	23.3
Progress in Materials Science	1	25.9
Energy & Environmental Science	3	15.5
Advanced Energy Materials	1	14.4
Advanced Functional Materials	2	10.4
Chemistry of Materials	2	8.5
Chemical Communications	1	6.7
Journal of Materials Chemistry	1	6.6
Journal of Physical Chemistry C	4	4.8
Inorganic Chemistry	1	4.8
Journal of Power Sources	45	5.3
Electrochemistry Communications	5	4.3
Electrochimica Acta	54	4.1
Applied Catalysis, B	2	6.0
Applied Energy	2	5.3
ChemCatChem	1	5.0

Dr. Jiujun Zhang's Books

