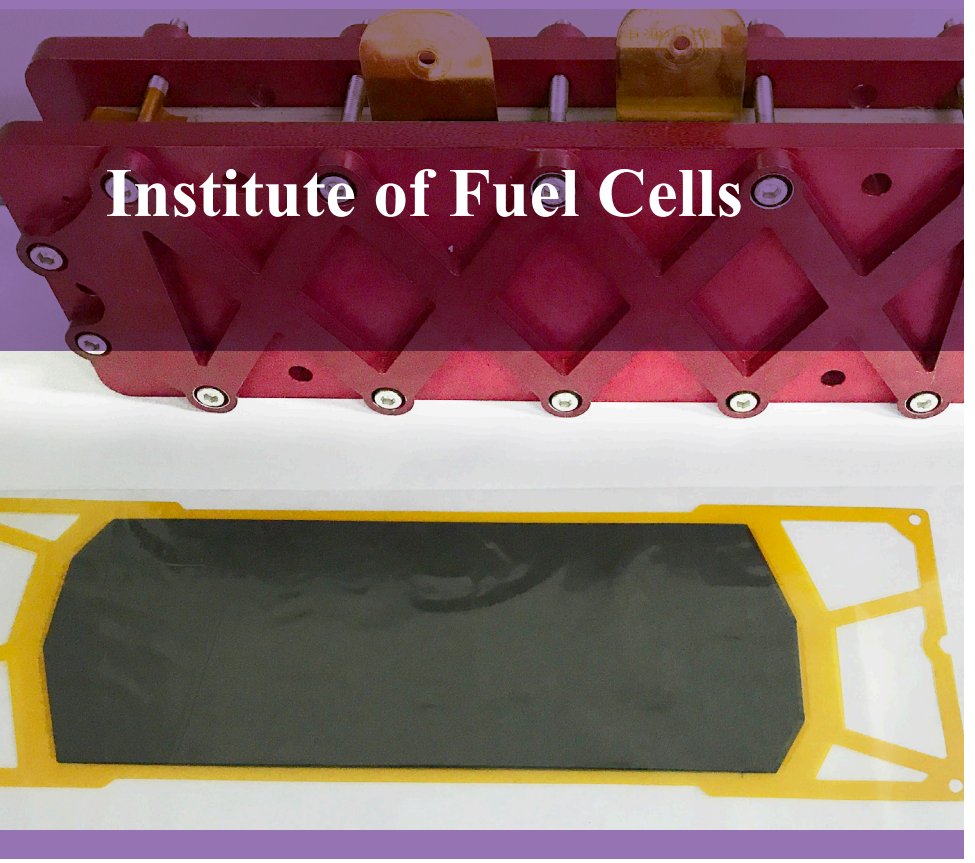
上海交通大学 SHANGHAI JIAO TONG UNIVERSITY | 机械与动力工程学院 School of Mechanical Engineering



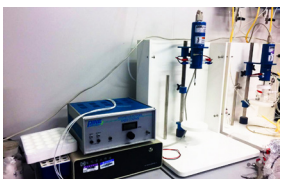
Institute of Fuel Cells

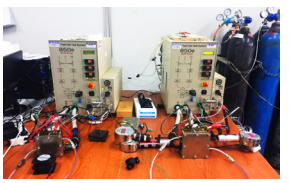
1. Description

The Institute of Fuel Cells was founded in 1998 and is the first academic institution focusing on fuel cell research in Chinese universities. For the past two decades, the institute has made great achievements in the field of electrochemical energy conversion and storage. The institute's research themes cover the fundamentals, materials, methods and applications of Proton Exchange Membrane Fuel Cells, Solid Oxide Fuel Cells, Direct Alcohol Fuel Cells, Lithium Ion Batteries, Lithium-Air Batteries, All Vanadium Redox Flow Batteries and so on. 2 professors, 8 associate professors and 4 assistant professors, 4 postdoctoral researchers and over 50 graduate students are currently working in the institute.

2. Key Research Fields

- Fundamentals of Electrochemistry
- Interfacial Electrochemistry
- Design of Highly Active Pt Alloy and Monolayer Electrocatalysts
- Synthesis of Non-Noble Metal Oxygen Reduction Reaction Electrocatalysts
- Kinetics and Mass Transport in Ultra-Low Pt Cathodes of PEMFCs
- High Performance Ultra-Low Pt Membrane Electrode Assembly of PEMFCs
- Fabrication of Low-Cost PEM Fuel Cells and Stacks
- Li-Ion and Lithium-Air Batteries, All-Vanadium Redox Flow Batteries
- Stack and System Design, Assembly and Testing for Electrochemical Energy Conversion and Storage





3. Labs, Centers and Groups

- Electrochemistry laboratory
- Nanomaterial synthesis laboratory
- Fuel cell assembly laboratory
- Battery assembly laboratory
- Fuel cell testing and assessment laboratory
- Battery testing and assessment laboratory
- Computation Center for Electrochemical Fundamentals and Applications

4. Instrumentation & Facilities

- Fuel cell test system 850e (US, Associates, Inc.)
- Fuel cell test system C10-LT (GER, Fuelcon, Evaluator)
- Fuel cell test system FCTS -1KW-PEMFC (US, Arbin Instruments)
- Fuel cell test system HTS-1000& HTS-3000 (Taiwan CHN, Hephas)
- SI 1287 electrochemical interface & SI 1260 interface/grain Phae analyzer (UK, Solartron Mobrey)
- AutoLab 302N(SUI, Metrohm)
- PARSTAT 4000+ (US, Ametek Scientific Instruments)
- Modulated speed rotator(US, Pine Instrument)
- PRISM 500 programmable XYZ coating system(US, Ultrasonic Systems, Inc)
- Electrospinning equipment NS LAB (Czech Republic, Elmarco)
- Mikrouna GloveBox super (1220/750/900) & universal (2440/750/900) (CHN, Mikrouna Co., Ltd.)
- CHI660D & E (CHN, CH Instruments Ins.)

5. Website

http://fuelcell.sjtu.edu.cn/english

6. Director

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