Zhang Jingcheng

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Education

Sun Yat-sen University *Aug 2019 – Jun 2021*

MS in Chemical Engineering

- **GPA:** 3.4/4.0
- **Coursework:** Electrochemical Measurements Techniques, Modern Catalysis Technology, Academic Criterion and Writing, Materials Surface and Interface Engineering

Zhongkai University of Agriculture and Engineering *Sept 2015 – Jun 2019*

BS in Chemical Engineering and Process

- **GPA:** 3.3/4.0
- **Coursework:** Physical Chemistry, Analytical Chemistry, Inorganic Chemistry, Organic Chemistry, Principle of Chemical Engineering

Publications

1. Zhang J, Huang L, Fang T, Xiang Z, He S, Peljo P, Gan S, Huang X, Deng H. Quantized Collision/Fusion Events of Anionic Ionosomes at a Polarized Soft Micro Interface [J]. Chemistry – An Asian Journal, 2022, 17(24): e202200731.

2. Huang L, Zhang J, Xiang Z, Wu D, Huang X, Huang X, Liang Z, Tang Z-Y, Deng H. Faradaic Counter for Liposomes Loaded with Potassium, Sodium Ions, or Protonated Dopamine [J]. Analytical Chemistry, 2021, 93(27): 9495–9504.

3. Zhang J, Huang L, Fang T, Du F, Xiang Z, Zhang J, Chen R, Peljo P, Ouyang G, Deng H. Discrete Events of Ionosomes at the Water/Toluene Micro-Interface [J]. ChemElectroChem, 2022, 9(22): e202200624.

Research Experiences

Ionosome - Study of a Novel Type of Nanoemulsions *Zhuhai City*

Graduate research — Advisor: Prof. Deng Haiqiang *Oct 2020 – Oct 2022*

- Ionosomes are bilayer-encapsulated nanoscopic water droplets electrogenerated in situ without surfactants.
- Employed an electrochemical method to generate and detect anionic ionosomes at a miniaturized interface between two immiscible electrolyte solutions (ITIES).
- Utilized single-entity collisional electrochemistry to capture physicochemical data at the single entity level, demonstrating that anionic ionosome collision and fusion behavior follows the bulk electrolysis model and revealing critical underlying factors.
- Published a paper recognized as a **Very Important Paper** and selected for **Editors' Choice Spotlight**

in Chemistry Europe.

Faradaic Counter for Liposomes *Zhuhai City*

Graduate research — Advisor: Prof. Deng Haiqiang *Oct 2019 – Jun 2021*

- Single-particle collisional electrochemistry has emerged as a novel analytical method for measuring soft materials, such as liposomes.
- Developed a novel strategy that utilizes quantal current signals generated from the collisions and fusions of ion-loaded liposomes with micro-ITIES.
- Characterized individual liposomes and quantified their contents through current signal analysis at the single-particle level.
- Co-authored a paper published in the journal Analytical Chemistry.

Work Experiences

Guangzhou Southern Investment Group Co., Ltd *Guangzhou City*

Solution Engineer *Jul 2022 – Aug 2024*

- Provided renewable energy solutions to clients, including photovoltaic systems, energy storage systems, and EV charging station construction.
- Contributed to the development of ISO international standards:
  - ISO TC307/AHG 4: Blockchain and distributed ledger technologies - DLT and carbon markets
  - ISO TC322/AHG 3: Sustainable finance - FinTech in Carbon Markets
- Conducted surveys on the status of carbon markets as a Carbon Management Engineer and assisted in launching the first carbon accounting terminal based on blockchain technology.

**Guangzhou Southern Investment Group Co., Ltd. was established in 1999 and is invested in by China Southern Power Grid Co., Ltd.*

Awards

**From 2017 to 2021*

1. National endeavor scholarship
2. Enterprise scholarship
3. Outstanding poster award in summer school of Xiamen University
4. Third-class scholarship of Sun Yat-sen Univeristy

Skills & Interest

Software: Office, Endnote, Origin, Mindmap, Adobe premiere pro

Languages: Mardarin(native), English, Catonese, Java

Interest: Reading, Traveling, Movies, Dota, Running