DPhil in Chemistry and Chemical Engineering

■ Program Overview

The School of Chemistry and Chemical Engineering (SCCE) was founded in 1928 as the Chemistry Department of SJTU. After years of development, SCCE has grown into a college pioneering in many fields with cutting-edge technologies, and has done an excellent job in world rankings. In terms of Essential Science Indicators, SCCE are among the top one thousandth; in terms of QS Rankings, ranked 49 in Chemistry and 43 in Chemical Engineering. In 2017, 2 disciplines of SCCE, Chemistry and Chemical Engineering, were selected in the "Double First-Class" selection. The main building of SCCE covers a floorage of more than 20,000 m2 and accommodates a variety of state-of-the-art equipment and facilities. With its vibrant faculty and diversified programs, the School has been one of the long-standing educators in the field of chemistry and chemical engineering, featuring the combination of mature degree programs and abundant resources of a world-class university.

■ Main research field:

> Inorganic Synthesis and Preparative Chemistry
> Materials Chemistry
> Inorganic Nano-Materials and Chiral Mesoporous Materials
> Supra-Molecular Chemistry
> Organo-Metallic Chemistry
> Asymmetric Catalysis and Synthesis Chiral Ligands
> Bioanalytical Chemistry and Metabolic Chemistry
> Molecular Modeling and Computational Chemistry
> Method and Application of the Quantum Chemistry of Heavy Atom System
> Density Functional Theory Method and Application
> Polymer Self-assembly
> Polymer Rheology
> Rubber Processing and Product
> Polymer Composites
> Electrochemical Engineering and Energy Storage Battery Technology
> Catalytic Reaction Engineering and New Energy Chemical Industry
> Green Chemical Technology
> Metal Corrosion and Protection Technology Development
> Environmental Protection and Comprehensive Utilization

■ Main Courses

Polymer Chemistry and Materials
Advanced Inorganic Chemistry
Advanced Organic Chemistry
Advanced Chemical Engineering Thermodynamics
Polymer Physics: from theoretical fundamentals to latest progress in studies
Physical Organic Chemistry
Introduction to Surface Engineering