

Student Activities

Student activities play an indispensable part of University life. Within the Department of Chemistry, there are several student societies organising a wide range of social and recreational activities to enhance the benefits and interests of the students and to create a harmonic and desirable environment for studying. Participation in the various activities helps students to enhance their intellectual growth and strengthen their self-esteem.

Teaching Staff

Professors of Chemistry

- Prof. Ng, Cheuk Yiu (伍灼耀)
[Dean, Faculty of Science]
- Prof. Wong, Nai Ching Henry (黃乃正)
[Synthesis of natural products and highly strained non-natural molecules]
- Prof. Wu, Chi (吳奇)
[Intelligent gels, nanoparticles and dynamics of macromolecules in solution]
- Prof. Xie, Zuowei (謝作偉)
[Organometallic chemistry]

Wei Lun Research Professor

- Prof. Mak, Chung Wai Thomas (麥松威)
[Crystal engineering, coordination network assembly and structural inorganic chemistry]

Emeritus Professors of Chemistry

- Prof. Li, Wai Kee (李偉基)
Prof. Tam, Shang Wai (譚尚渭)

Honorary Professor of Chemistry

- Prof. Chan, Sunney Ignatius (陳長謙)

Professors

- Prof. Au-Yeung, Chik Fun Steve (歐陽植勳)
[NMR study and theoretical calculation of biopolymers, and synthesis of transition metal complexes with pharmaceutical implications]
- Prof. Chan, Kin Shing (陳建成)
[Organometallic chemistry: catalysis and mechanistic studies]
- Prof. Chan, Tak Wah Dominic (陳德華)
[Biological mass spectrometry: instrumentation and applications]
- Prof. Chow, Hak Fun (周克勳)
[Syntheses of dendrimers, organic gelators, and conjugated oligomers and polymers]
- Prof. Leung, Wing Por Kevin (梁永波)
[Synthetic and structural studies of organometallic compounds]
- Prof. Liu, Zhifeng (劉志鋒)
[Theoretical and computational chemistry]
- Prof. Ng, Kee Pui Dennis (吳基培)
[Chemistry of functional dyes]
- Prof. Shing, Kung Ming Tony (成公明)
[Carbohydrate chemistry; Total syntheses of natural products and their analogues]
- Prof. Yu, Chai Mei Jimmy (余濟美)
[Novel nano-structured materials and environmental applications of photocatalysis]

General Enquiries:

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Joint chemistry societies inauguration ceremony



Chemistry graduation dinner



CUHK Chemistry football team



Chemistry orientation camp

Associate Professors

- Prof. Chan, Man Chor (陳文初)
[High resolution and high sensitivity laser spectroscopy]
- Prof. Lam, Sik Lok (林錫樂)
[Biophysical chemistry of nucleic acids and NMR spectroscopy]
- Prof. Lee, Hung Kay (李鴻基)
[Organometallic and bioinorganic chemistry]

Assistant Professors

- Prof. Miao, Qian (繆謙)
[Organic electronic materials and devices; crystal engineering and solid-state organic reactions]
- Prof. Ngai, To (魏濤)
[Nanofunctional structures, biomolecular interactions and dynamics]
- Prof. Xia, Jiang (夏江)
[Bioorganic and biophysical chemistry]
- Prof. Zheng, Bo (鄭波)
[Microfluidics; Bioanalytical chemistry]

Research Assistant Professors

- Prof. Ho, Chun Yu (何振宇)
[Asymmetric catalysis; Organometallic chemistry]
- Prof. Leung, Cham Fai (梁湛輝)
[Supramolecular chemistry; Nanotechnology]
- Prof. Lo, Pui Chi (盧沛芝)
[Cancer imaging and photodynamic therapy]
- Prof. Peng, Xiaoshui (彭小水)
[Total syntheses of natural products]

Teaching Fellow

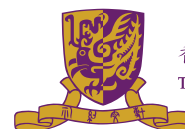
- Dr. Hui, Ka Chung (許加聰)

Senior Instructors

- Dr. Chan, Wing Fat (陳永發) [Analytical chemistry]
- Dr. Mak, Kin Wah Kendrew (麥建華) [Organic chemistry]

Instructors

- Dr. Cheung, Yu San (張羽伸) [Physical chemistry]
- Dr. Yang, Li Wei (楊力偉) [Inorganic chemistry]



香港中文大學
THE CHINESE UNIVERSITY OF HONG KONG

Department of 化學系 Chemistry

理學院

Faculty of Science



Introduction

Chemistry plays indispensable roles in improving the quality of our life and our understanding of nature. The development of renewable and sustainable energy sources, the synthesis of selective and potent drugs as well as the discovery of advanced materials all depend on sound knowledge of chemistry.

The Department of Chemistry is one of the largest and best equipped departments in the University. We have 18 faculty members and 4 research assistant professors actively engaged in teaching and research in virtually all branches of frontier chemistry.

Currently there are about 200 undergraduate and 80 graduate students enrolled in the Department. The Department, which is located at the University Science Centre and the newly established Centralized Science Laboratory Building, occupies a total floor area of about 4,500 square metres and provides excellent facilities for teaching and research.



Undergraduate Programmes

Our Department offers both major and minor undergraduate programmes for students. The three-year major programme leading to a BSc degree is specifically designed for Secondary 7 entrants. The first two years of the programme focus on basic training in all disciplines of modern chemistry. In the third year of the programme, the Department offers a wide variety of advanced elective courses for the undergraduate Chemistry Majors. Final year students take part in the Problem-based Learning projects, in which students have to solve an authentic chemistry problem by conducting lab-based research work under the supervision and guidance of experienced instructors and postgraduate students. Alternatively, students with good academic standing are given the option of undertaking individual research project for an undergraduate thesis. Annually, there are about 30 undergraduate students participating in summer research projects supervised by faculty members, thereby gaining valuable additional practical experience. Students are also encouraged to participate international exchange programmes to universities abroad, and internship programmes to gain exposure to the chemistry-related industrial and commercial sectors.

Course Structure for BSc in Chemistry

Required Courses

First Year

Analytical Chemistry (with Lab)
Main Group Chemistry (with Lab)
Basic Principles and Hydrocarbons (with Lab)
Fundamentals of Spectroscopic Analysis
Thermodynamics and Chemical Equilibrium (with Lab)
Tools in Physical Chemistry
Chemical Safety and Practice
Student Oriented Teaching

Second Year

Instrumental Analysis (with Lab)
Transition Metal Chemistry (with Lab)
Alcohols, Ethers and Carbonyl Compounds (with Lab)
Amines, Arenes and Heterocycles (with Lab)
Chemical Kinetics (with Lab)
Chemical Bonding

Third Year

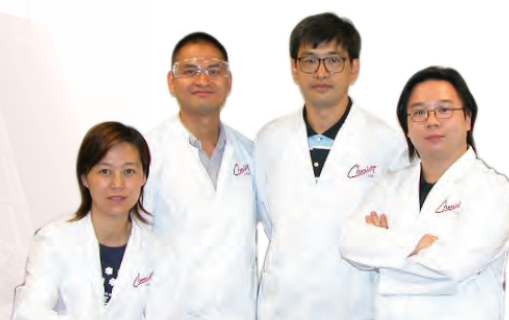
Advanced Analytical Chemistry
Advanced Inorganic Chemistry
Pericyclic Reactions and Biomolecules
Molecular Spectroscopy (with Lab)
Introduction to Macromolecules or Quantum Chemistry
Problem-based Learning or Undergraduate Thesis
3 Advanced Chemistry Elective Courses*

*Examples of Advanced Chemistry Elective Courses

Practices in Testing Laboratory
Synthesis of Natural Products
Pharmaceutical Chemistry
Mass Spectrometry of Biomolecules
Principles of Biomolecular NMR Spectroscopy
Bioorganic Chemistry
Introduction to Laser Spectroscopy
Chemical Applications in Forensic Science
Industrial Chemistry



Undergraduate students in laboratory classes



Graduate Programmes and Research

The Department offers both MPhil and PhD programmes which involve course work and a thesis embodying the results of original research. Normally financial assistance in the form of postgraduate studentship is provided.

The Chemistry Department is equipped with an array of state-of-the-art facilities for research. Current research interests of our faculty members include the following areas:

- ▶ analytical and environmental chemistry
- ▶ green chemistry and catalysis
- ▶ inorganic and structural chemistry
- ▶ organic synthesis
- ▶ organometallic chemistry
- ▶ physical and biophysical chemistry
- ▶ chemistry of macromolecules and colloids
- ▶ bioanalytical chemistry
- ▶ laser spectroscopy
- ▶ theoretical and computational chemistry



High resolution mass spectrometer for research purposes

Being one of the best research departments in the University as well as a well-known active centre of chemical research, the Department has contributed over 100 publications per year in various international and peer-reviewed journals during the past few years.

Our faculty members are internationally recognized for their contribution in research. Three of our colleagues were elected as members of the Chinese Academy of Sciences, and five were named as Croucher Senior Research Fellows. Many of our professors were invited to be members of editorial boards of international journals, and honorary professors in various universities in China.



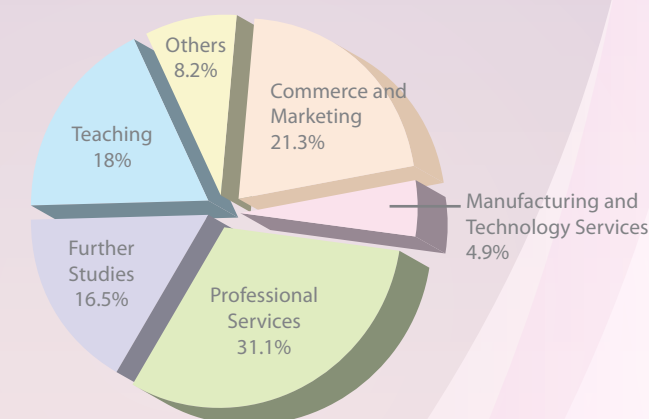
Members of the Chinese Academy of Sciences

Career Prospects

The career of our graduates is highly diversified. Besides continuing to pursue higher degrees in chemistry or related disciplines, some of our graduates are engaged in chemistry-related careers such as environmental monitoring, forensic science and quality assurance in government or private laboratories while some serve in primary or secondary schools. Some may choose to develop their careers in commerce and industry sectors based on their sound training in analytical perception and technical knowledge. Many of our former graduates are now taking prominent positions in different sectors, including:

- ▶ ~ 13 Secondary school principals
- ▶ ~ 65 Professors / lecturers in local and overseas tertiary institutions
- ▶ ~ 20 Chemists in the Government Laboratory

First-Job Status for Chemistry Graduates of 2008



Graduate class