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Professor
Member of Chinese Academy of
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**Research
Fields**

- ◇ Design & Synthesis of small organic molecules with biological significance as well as SAR study.
- ◇ Asymmetric synthesis of aminophosphinic acid and related peptide.
- ◇ Chemoenzymatic synthesis.

**Academic
careers**

- ◇ September, 1960 up to present: Research professor, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences.
- ◇ August, 1956 to August, 1960: Associate professor, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences.
- ◇ September, 1955 up to July, 1956: Deputy Chief-engineer, Administration of Pharmaceutical Industry, Ministry of Chemical Industry.
- ◇ May, 1948 to June 1951: Research chemist, R&D Department, Shanghai No.1 People's Pharmaceutical Plant.

Education

- ◇ September, 1944 to May, 1948 National College of Pharmacy
- ◇ August, 1951 to September, 1955 All-Union Research Institute of Pharmaceutical Chemistry, Moscow, Ph.D.

**National
Awards**

- ◇ National Natural Science Award, Second Class (1982)
- ◇ Twice National Science and Technology Progress Awards, Second Class (1985), Third Class (1987)
- ◇ Three National Innovation Awards, Third Class (1987, 1988, 1990)
- ◇ Awards from State Council of National Defense (1988)
- ◇ Ho Leung Ho Lee Prize for Science and Technology (2001)

**Academic
activities**

- ◇ Visiting Professor in the Chemistry Department, University of Nice, France (1983)
- ◇ Visiting Professor in the Department of Organic Chemistry, University of New South Wales, Australia (1991)

Representative recent Publications

- ✧ Visiting Professor in the Laboratory of Coordination Chemistry, CNRS, Toulouse, France (1992)
 - ✧ Senior Visiting Scholar at Roker Hydrocarbon Research Institute, University of Southern California, Los Angeles, USA (1993)
 - ✧ Member of Editorial Boards of *Phosphorus, Sulfur and Silicon* (1986–present); *Solvent Extraction and Ion-Exchange* (1982-2004); *Heteroatom Chemistry*(1994-2003)
1. D. Zhang, **C. Yuan***; “An Enantioselective Nucleophilic Addition of α,β -Unsaturated Trifluoromethylketones Catalyzed by L-proline Derivatives”, *Tetrahedron* **2008**, 64, 2480-2488.
 2. Q. Chen, **C. Yuan***; “A Facile Synthesis of Chiral 4-(tert-Butylsulfynylamino)-2-Oxo-Phosphonates and Their Conversion into 5,5-Disubstituted 2-Benzulidene-3-oxo-Pyrolidines”; *Synthesis* **2008**, 1085-1093.
 3. A. Degterev, J. Hitomi, M. Germscheid, I. L. Ch'en, O. Korkina, X. Teng, D. Abbott, G. D. Cuny, **C. Yuan**, G. Wagner, S. M. Hedrick, S. A. Gerber, A. Lugovskoy & J. Yuan*. “Identification of R1P1 Kinase as a Specific Cellular Target of Necrostatins”; *Nature Chemical Biology* **2008**, 4, 313-321.
 4. D. Zhang, **C. Yuan***; “A Concise and First Synthesis of α -Aminophosphinates with Two Stereogenic Atoms Leading to Optically Pure α -Amino-H-Phosphinic Acids”; *Chemistry, A European Journal* **2008**, 14, 6049-6052.
 5. Q. Chen, **C. Yuan***; “Sulfinimine-mediated Asymmetric Synthesis of Acyclic and Cyclic α -Amino-phosphonates”; *Synthesis* **2008**, 2986-2990.
 6. W. Zheng, A. Degterev, E. Hsu, J. Yuan, **C. Yuan***; “Structure-activity Relationship Study of A Novel Necroptosis Inhibitor, Necrostatin-7”; *Bioorg. & Med. Chem. Lett.* **2008**, 18, 4932-4935.
 7. Q. Chen, **C. Yuan***; “An Unexpected Ruthenium Complex and Its Unique Behavior as Catalyst in Dynamic Kinetic Resolution of Secondary Alcohols”; *Chem Comm* **2008**, 5333-5335
 8. J. Yuan, C. Yuan and D. Alexei; “Compounds, Screens and Methods of Treatment”; PCT Int. Appl **2008**, Patent No. Application No. WD 2008045406, 20080417.
 9. D. Zhang, **C. Yuan***; “First and Highly Enantioselective Synthesis of β -Amino-phosphinate with two Stereogenic Atoms and Their Conversion to Optically Pure Ethyl β -Amino-H-phosphinates”; *Chemistry, A European Journal* **2009** (in press)
 10. Q. Chen, K. Wang and **C. Yuan***; “A Chemoenzymatic Synthesis of Chiral Secondary Alcohols Bearing Sulfur-containing Functionality”; *New Journal of Chemistry* **2009**, DOI:10.1039/b820192g
 11. K. Wang, J. Li, J. Yuan, **C. Yuan***; “Method of Synthesis of 3-Aryl-5,6-Substituted Thiophenopyrimin-4-Carbonyl-2-Mercaptoacetonitriles”; Chinese Patent (Issued **2008**-11-5) ZL 2006 1 0117097X
 12. Q. Chen, **C. Yuan***; “A New and Convenient Asymmetric Synthesis of α -Amino- and α -Alkyl- α -amino-phosphonic Acids Using N-tert-Butylsulfanyl Imines as Chiral Auxiliaries”; *Synthesis* **2008**, 3779-3786.
 13. D. Zhang, **C. Yuan***; “Reaction of 1,2-unsaturated trifluoromethyl ketones and their Conversion to 1-trifluoromethylfurane derivatives”; *Eur. J. Org. Chem.* **2007**, 23, 3916-3924.
 14. K. Wang, J. Li, J. Yuan, **C. Yuan***; “Structure-Activity Relationship Analysis

of a Novel Necroptosis Inhibitor, Necrostatin-5"; *Bioorg. & Med. Chem. Lett.* **2007**, 17, 1455-1465.

15. **C. Yuan***, J. Li, W. Zhang; "A Facile Chemoenzymatic Method for the Preparation of Chiral 1,2-Dihydroxy-3,3,3-Trifluoropropanephosphonates"; *J. Fluorine. Chem.* **2006**, 127, 44-47.
16. W. Zheng, **C. Yuan***; "Synthesis of 3-Trifluoro-2-Hydroxy/amino-1-Fluoropropanephosphonates"; *Chin. J. Chem.* **2006**, 24, 1170-1174.
17. D. Gong, J. Li, **C. Yuan***, J. Yuan; "Synthetic study of substituted arylsulfonylphenylbenzamides" *Synth. Commun.* **2005**, 34, 55-66.
18. C. Xu, **C. Yuan***; "Candida Rugosa lipase-catalyzed kinetic resolution of β -hydroxy- β -aryl-Propionates and δ -hydroxy- δ -aryl- β -oxo-pentanoates"; *Tetrahedron* **2005**, 61, 2169-2186.
19. **C. Yuan***, Q. Chen; "Facile and efficient asymmetric synthesis of alpha-aminoalkylphosphonic acids" *Chin. J. Chem.* **2005**, 23, 1671-1676.
20. C. Xu, Y. Zhang, **C. Yuan***; "A chemoenzymatic approach to optically active 5-hydroxy-3-oxo- carboxylates" *Synlett.* **2004**, 3, 485-488.
21. C. Xu, Y. Zhang, **C. Yuan***; "A new and convenient route to optically active 2-phosphoryl-3-oxo- 5-alkyl/aryl tetrahydrofurans and the reactions thereof" *Eur. J. Org. Chem.* **2004**, 2253-2262.
22. C. Xu, **C. Yuan***; "Enzymatic synthesis of optically active 1-chloro-4-hydroxy-2-keto-alkane- phosphonates and reactions thereof" *Tetrahedron* **2004**, 60, 3883-3892.
23. D. Gong, L. Zhang, **C. Yuan***; "Synthesis of 4-(O,O-Dialkylphosphoryl)-1,3-Oxazole by Rhodium-catalyzed Heterocycloaddition" *Synth. Commun.* **2004**, 34, 3259-3264.
24. D. Gong, L. Zhang, **C. Yuan***; "A Novel Route to 3-(O,O-Diethylphosphoryl)-2,3- dihydrofurans via Rhodium-catalyzed Heterocycloaddition" *Synth. Commun.* **2004**, 34, 3251-3258.
25. C. Xu, **C. Yuan***; "A New Reaction System for Horner-Wadsworth-Emmons Olefination of Optically Active 4-Hydroxy-2-oxo-alkanephosphonates and 4-Hydroxy-1-chloro-2-oxo- alkanephosphonates with Aliphatic Aldehydes" *Synthesis* 2004, 2449-2458.
26. C. Xu, **C. Yuan***; "A Facile Synthesis of Optically Active β -Amino- β -Arylethyl Phosphonates by Mitsunobu Reaction" *Eur. J. Org. Chem.* **2004**, 4410-4415.
27. C. Xu, **C. Yuan***; "An Improved Method for the synthesis of chiral Tomoxetine and fluoxetine" *Chin. J. Chem.* **2004**, 22, 775-778.
28. D. Gong, J. Li, **C. Yuan***; "A New and Efficient Synthesis of Wedelolactone Derivatives" *Chin. J. Chem.* **2004**, 22, 925-931.
29. D. Chen, P. Zhong, J. Ding and **C. Yuan***; "(1R,3aSR)-1-(chloromethyl)-1 λ -5-phospho-2,4a- diazaperhydropentalene-1-oxide dehydrate" *Acta Cryst.* **2004**, E60, 237 - 238.
30. M. Kobori, Z. Yang, D. Gong, **C. Yuan***, J. Yuan*; "Wedelolactone Suppresses LPS-Induced Expression by Directly Inhibiting the IKK Complex"; *Cell Death and Differentiation* **2004**, 11, 125-130.