

## 2004 年度重点实验室发表论文

1) A Highly Stereoselective Addition of the Anion Derived from  $\alpha$ -Diazoacetamide to Aromatic (*N*-Tosyl)imines

Yonghua Zhao, Zhihua Ma, Xiaomei Zhang, Yaping Zou, Xianglin Jin and Jianbo Wang

*Angew. Chem. Int. Ed.* **2004**, 43, 5977-5980.

2) Stereoselective Reduction of  $\beta$ -Hydroxy $\alpha$ -Ketoesters: A Concise Synthesis of *anti*- $\alpha,\beta$ -Dihydroxy Esters

Mingyi Liao, Wengang Yao and Jianbo Wang

*Synthesis*, **2004**, 2633-2636.

3) Unusual Reaction of beta-Hydroxy alpha-Diazo Carbonyl Compounds with

TsNHN=CHCOCl/Et<sub>3</sub>N

Weifeng Shi, Bo Zhang, Binge Liu, Feng Xu, Fengping Xiao, Jian Zhang, Shiwei Zhang, Jianbo Wang

*Tetrahedron Lett.* **2004**, 45, 4563-4566.

4) An Efficient and Mild Preparation of Vinyl Diazo Carbonyl Compounds

Weifeng Shi, Ming Ma, Jianbo Wang

*Chin. Chem. Lett.* **2004**, 15, 911-914.

5) Linear Free Energy Correlation Analysis on the Electronic Effects of Rh(II) Carbene O-H Insertion

Zhaohui Qu, Weifeng Shi and Jianbo Wang

*J. Org. Chem.* **2004**, 69, 217-219.

6) Reaction of oxazirconacycloheptenes with aldehydes mediated by CuCl: one-pot synthesis of tetrahydrofuran derivatives from four different components involving two molecules of the same or different aldehydes, an ethylene and an alkyne

Changjia Zhao, Jiang Lu, Zhiping Li, Zhenfeng Xi

*Tetrahedron*, **2004**, 60, 1417-1424.

7) Reactions of 1,4-dilithiobutadienes with isothiocyanates: preparation of iminocyclopentadiene derivatives via cleavage of the C = S double bond of a RN = C = S molecule

Congyang Wang, Qiuling Song, Zhenfeng Xi

*Tetrahedron*, **2004**, 60, 5207-5214.

8) Concise synthesis of stereodefined dienols and cyclopentadienes via direct addition of 1-bromomagnesiobutadienes and 1-lithiobutadienes to carbonyl compounds

Hongyun Fang, Qiuling Song, Zhihui Wang, Zhenfeng Xi

*Tetrahedron Lett.*, **2004**, 45, 5159-5162.

9) Reaction chemistry of 1,4-dilithio-1,3-diene and 1-lithio-1,3-diene derivatives (Microreview)

Zhenfeng Xi

*Eur. J. Org. Chem.*, **2004**, 2773-2781.

10) Reactions of substituted (1,3-butadiene-1,4-diyl)magnesium, 1,4-bis(bromomagnesio) butadienes and 1,4-dilithiobutadienes with ketones, aldehydes and PhNO to yield cyclopentadiene derivatives and N-Ph pyrroles by cyclodialkenylation

Hongyun Fang, Guotao Li, Guoliang Mao, Zhenfeng Xi

*Chem. Eur. J.*, **2004**, *10*, 3444-3450.

11) Formation of 2,6-dioxabicyclo[3.3.0]-octa-3,7-dienes or multiply substituted *o*-benzoquinones from reactions of 1,4-dilithio-1,3-dienes with dimethyl oxalate

Guoliang Mao, Jiang Lu and Zhenfeng Xi

*Tetrahedron Lett.*, **2004**, *45*, 8095-8098.

12) Synthesis, structural characterization, and skeletal rearrangement of dibenzo tricyclo[3.3.0.0<sup>2,6</sup>]-1,2,5,6-tetrasubstituted-octanes

Guotao Li, Hongyun Fan, Shiwei Zhang, and Zhenfeng Xi

*Tetrahedron Lett.*, **2004**, *45*, 8399-8402.

13) Zirconocene-mediated intermolecular coupling of one molecule of Si-tethered diyne with three molecules of organonitriles: One-pot formation of pyrrolo[3,2-*c*]pyridine derivatives via cleavage of C-N triple bonds of organonitriles

Xiaohua Sun, Congyang Wang, Zhiping Li, Shiwei Zhang, Zhenfeng Xi

*J. Am. Chem. Soc.*, **2004**, *126*, 7172-7173.

14) Selective Preparation of Oxygen-Rich [60]Fullerene Derivatives by Stepwise Addition of tert-Butylperoxy Radical and Further Functionalization of the Fullerene Mixed Peroxides

Shaohua Huang, Zuo Xiao, Fudong Wang, liangbing Gan, et al.

*J.Org.Chem.*, **2004**, *69*, 2442-2453.

15) Iodo-Controlled Selective Formation of Pyrrolidino[60]fullerene and Aziridino[60]fullerene from the Reaction between C<sub>60</sub> and Acid Esters

Xiang Zhang, Liangbing Gan, Shaohua Huang and Yaru Shi

*J.Org.Chem.*, **2004**, *69*, 5800-5802.

16) Synthesis of Novel Palladacycles and Their Application in Heck and Suzuki Reactions under Aerobic Conditions

Xiong, Z.; Wang, N.; Dai, M.; Li, A.; Chen, J.; Yang, Z.

*Org. Lett.* **2004**; *6*, 3337-3340.

17) Synthesis of a Novel C<sub>2</sub>-Symmetric Thiourea and Its Application in the Pd-Catalyzed Cross-Coupling Reactions with Arenediazonium Salts under Aerobic Conditions

Dai, M.; Liang, B.; Wang, C.; Chen, J.; Yang, Z.

*Org. Lett.* **2004**; *6*(2); 221-224.

18) Concise Synthesis of Isoquinoline via the Ugi and Heck Reactions

Xiang, Z.; Luo, T.; Lu, K.; Cui, J.; Shi, X.; Fathi, R.; Chen, J.; Yang, Z.  
*Org. Lett.* **2004**; 6(18); 3155-3158.

19) A Novel Thiourea Ligand Applied in Heck, Suzuki and Suzuki Carbonylative Reactions  
Dai, M.; Liang, B.; Wang, C.; You, J.; Xiang, J.; Chen, J.; Yang, Z.  
*Advanced Synthesis & Catalysis;* **2004**, 346, 1-6.

20) Novel Blue-Light-Emitting Truxene-Containing Hyperbranched and Zigzag Type Copolymers:  
Synthesis, Optical Properties, and Investigation of Thermal Spectral  
Stability  
X.-Y. Cao, X.-H. Zhou, H. Zi, J. Pei  
*Macromolecules*, **2004**, 37, 8874-8882.

21) Exploiting an imidazole-functionalized polyfluorene derivatives as a chenosensry material  
X.-H. Zhou, J.-C. Yan, J. Pei  
*Macromolecules*, **2004**, 37, 7078-7080.

22) Giant extended pi-conjugated dendrimers containing the 10,15-dihydro-5H-diindeno [1,2-alpha;1 ',2  
'-c]fluorene chromophore: Synthesis, NMR behaviors, optical properties, and electroluminescence  
X.-Y. Cao, X.-H. Liu, X.-H. Zhou, Y. Zhang, Y. Jiang, Y. Cao, Y.-X. Cui, J. Pei  
*J. Org. Chem.* **2004**, 69, 6050-6058.

23) A general route to synthesis of *N*-protected 1-substituted and 1,2-disubstituted taurines  
Xu, Jiaxi, Xu Shu  
*Synthesis*, **2004**, (2), 276-282.

24) A convenient and effective method for synthesizing  $\beta$ -amino- $\alpha,\beta$ -unsaturated esters and ketones  
Gao Yuanhe, Zhang Qihan, Xu Jiaxi  
*Synth. Commun.* **2004**, 34(5), 909-916.

25) 非对称氮杂环丙烷的亲核开环反应及其区域选择性  
马琳鸽, 许家喜  
*化学进展*, **2004**, 16(2), 220-235.

26) Mass spectrometric fragmentation of 2a,4-disubstituted  
2,2a,3,4-tetrahydro-2-phenoxy-1*H*-azeto[2,1-*d*][1,5]benzothiazepin-1-ones under electron impact  
ionization conditions  
Xu Jiaxi, Huang Xu  
*Rapid Commun. Mass Spectrom.*, **2004**, 18(8), 859-862.

27) Intermolecular phenolic hydroxy methylation occurring between chiral  
*N,N'*-bis(2-hydroxyphenyl)-2,2-dimethyl-1,3-dioxolane-4,5-dicarbamide and co-crystallized methanol  
under electron impact ionization conditions  
Xu Jiaxi, Jiao Peng, He Zheng, Zhang Qihan, Yan Chunhua

*Chin. J. Chem.*, **2004**, 22(5), 455-459.

28) Preparation of highly optically pure homochiral sulfide-containing alcohols *via* oxazaborolidine-catalyzed asymmetric borane reduction of ketones

Xu Jiaxi, Wei Tiezheng, Xia Jiakun, Zhang Qihan, Wu Hesong

*Chirality*, **2004**, 16(6), 341-346.

29) Asymmetric aziridination of chalcones catalyzed by a novel backbone 1,8-bisoxazolinylanthracene (AnBOX)-bopper bopplex

Xu Jiaxi, Ma Linge, Jiao Peng

*Chem. Commun.* **2004**, (14), 1616-1617.

30) A new approach to the synthesis of phosphonopeptides. Ed

Xu Jiaxi, Zhang Qihan, Fu Nanyan, Du Yucang, Zhang Youshang, Tam, James P

*Peptides: Biology and Chemistry*, (*Proc. 7th. Chin. Pept. Symp.*, **2002**), 212-216, Shanghai Scientific & Technical Publishers, Shanghai, **2004**, China.

31) Asymmetric synthesis of chiral 2-aminoalkanesulfonic acids from chiral aziridines. Ed. Xu Jiaxi, Du Yucang, Zhang Youshang, Tam, James P.

*Peptides: Biology and Chemistry*, (*Proc. 7th. Chin. Pept. Symp.*, **2002**), 217-219, Shanghai Scientific & Technical Publishers, Shanghai, **2004**, China.

32) 光学活性反式1-(4-烷基环己基)醇的制备

张奇涵, 林晨翔, 张珊珊, 许家喜

*有机化学*, **2004**, 24(9), 1069-1074.

33) Reaction of 2,3-dihydro-1,5-benzothiazepines and phenylacetyl chloride in the presence of triethylamine: a new aspect on the formation mechanism of dihydro-1,3-oxazin-4-one derivatives.

Xu Jiaxi, Wang Chao, Zhang Qihan

*Chin. J. Chem.*, **2004**, 22(9), 1012-1018.

34) Influences of electronic effects and anions on the enantioselectivity in the oxazaborolidine-catalyzed asymmetric borane reduction of ketones.

Xu Jiaxi, Wei Tiezheng, Zhang Qihan

*J. Org. Chem.*, **2004**, 69(20), 6860-6866.

35) 花粉多肽与花粉过敏

许家喜

*大学化学*, **2004**, 19(5), 24-26, 30.

36) Development of bivalent acetylcholinesterase inhibitors as potential therapeutic drugs for alzheimer's disease

Du Da-Ming, Carlier, Paul R.

*Current Pharm. Design* **2004**, 10(25), 3141-3156.

37) Facile synthesis of C<sub>2</sub>-symmetric tridentate bis(thiazoline) and bis(oxazoline) ligands and their application in the enantioselective Henry reaction

Lu Shao-Feng, Du Da-Ming, Zhang Shi-Wei, Xu Jiaxi

*Tetrahedron: Asymmetry*, **2004**, 15 (21), 3433-3441.

38) Synthesis of novel C<sub>2</sub>-symmetric chiral bis(oxazoline) ligands and their application in the enantioselective addition of diethylzinc to aldehydes

Fu Bin, Du, Da-Ming, Wang Jianbo

*Tetrahedron: Asymmetry*, **2004**, 15(1), 119-126.

39) C<sub>2</sub>-symmetric chiral bis(thiazoline) and bis(oxazoline) ligands and their application in the catalytic allylic alkylation

Fu Bin, Du Da-Ming, Xia Qing

*Synthesis* **2004**, (2), 221-226.

40) Enantiospecific synthesis of pyridinylmethyl pyrrolidinemethanols and catalytic asymmetric borane reduction of prochiral ketones

Zhang Yong-Xin, Du Da-Ming, Chen Xiao, Lü Shao-Feng, Hua Wen-Ting,

*Tetrahedron: Asymmetry*, **2004**, 15(1), 177-182.

41) Convenient synthesis of bis(oxazoline) dicarboxylate derivatives

Fu Bin, Du Da-Ming, Xia Qing

*Chin. Chem. Lett.* **2004**, 15 (4), 383-385.

42) New chiral pyridine prolinol derivatives and preliminary study on asymmetric catalytic reaction

Chen Xiao, Zhang Yong-Xin, Du Da-Ming, Hua Wen-Ting

*Chin. Chem. Lett.*, **2004**, 15(2), 167-168.

43) Synthesis of new bis(oxazolines) and their application in the asymmetric cyanosilylation of aromatic ketones

Luo Mei, Du Da-Ming

*Chin. J. Org. Chem.* **2004**, 24(suppl.), 3.

44) Novel Ultrasonication-assisted Carbonyl Allylation Mediated by SnCl<sub>2</sub> in Water

Jun Wang, Gu Yuan and Changqing Dong

*Chemistry Letter*, **2004**, 33(3), 286.

45) Electrospray ionization mass spectrometric analysis of noncovalent complexes between DNA and polyamides containing N-methylpyrrole and N-methylimidazole

Jiang Zhou and Gu Yuan

*Rapid Communications in Mass Spectrometry*, **2004**, 18, 1519-1524.

46) Electrospray ionization mass spectral characteristics and fragmentation mechanisms of novel photoinduced DNA-cleaving agents formed as conjugates of haloarenes and polyamides containing N-methylimidazole

Dan Liu, Jiang Zhou and Gu Yuan

*Rapid Communications in Mass Spectrometry*, **2004**, 18, 2770-2772.

47) Electrospray ionization mass spectral fragmentation mechanisms of DNA-recognizing polyamides containing N-methylpyrrole and N-methylimidazole

Gu Yuan and Jiang Zhou

*Rapid Communications in Mass Spectrometry*, **2004**, 18, 1397-1402.

48) Electrochemical studies of the oxidation mechanism of polyamide on glassy carbon electrode

Ji ZH, Li JJ, Yuan G, Cai SM, Liu J, Liu C

*Journal of Electroanalytical Chemistry*, **2004**, 570(2), 265-273.

49) Synthesis of a novel conjugate of dibenzoyldiazomethane and polyamide containing N-methylimidazoles

Liu D, Yuan G

*Chinese Chemical Letters*, **2004**, 15(4), 392-393.

50) α-胰凝乳蛋白酶在不同介质中稳定性研究

沈鸿雁, 田桂玲

*北京大学学报(自然科学版)*, **2004**, 40(4), 578-582.

51) Study on the recognition of templates and their analogues on molecularly imprinted polymer using computational and conformational analysis approaches

Wu LQ, Li YZ

*JOURNAL OF MOLECULAR RECOGNITION*, **2004**, 17, 567-574.

52) Interaction of apoHb and various Fe-porphyrins

Liu JY, Li YZ

*Journal of Molecular Catalysis A: Chemical*, **2004**, 222, 75-80.

53) Layer-by-layer self-assembly of multilayer films containing DNA and Eu<sup>3+</sup>: their characteristics and interactions with small molecules

Zhou YL, Li YZ

*Langmuir*, **2004**, 20, 7208-7214.

54) Molecularly imprinted polymers with p-acetaminophenol and its positional isomers as templates

Yang ML, Li YZ

*Anal. Lett.*, **2004**, 37(10), 2043-2052.

55) Synthesis of an enzyme-like imprinted polymer with the substrate as the template, and its catalytic

properties under aqueous conditions

Cheng ZY, Zhang LW, Li YZ

*Chem. Eur. J.*, **2004**, 10 (14): 3555-3561.

56) Metal ion-mediated molecular-imprinting polymer for indirect recognition of formate, acetate and propionate

Wu LQ, Li YZ

*Anal. Chim. Acta*, **2004**, 517 (1-2): 145-151.

57) 苯甲酸及其酯类衍生物的分子印迹机理的研究

杨敏莉, 李元宗

*高等学校化学学报*, **2004**, 25 (6): 1034-1036.

58) Sulfamethoxazole-imprinted polymer for selective determination of sulfamethoxazole in tablets

Zheng N, Li YZ, Wen MJ

*J. Chromatogr. A*, **2004**, 1033 (1): 179-182.

59) Studies of the interaction between poly(diallyldimethyl ammonium chloride) and DNA by spectroscopic methods

Zhou YL, Li YZ

*Colloid Surface A*, **2004**, 233 (1-3): 129-135.

60) Studies of interaction between poly(allylamine hydrochloride) and double helix DNA by spectral methods

Zhou YL, Li YZ

*Biophys. Chem.*, **2004**, 107 (3): 273-281.

61) Improved fluorometric DNA determination based on the interaction of the DNA/polycation complex with Hoechst 33258

Zhou YL, Mao SN, Li YZ, et al.

*Microchim. Acta*, **2004**, 144 (1-3): 191-197.

62) The interaction of poly(ethylenimine) with nucleic acids and its use in determination of nucleic acids based on light scattering

Zhou YL, Li YZ.

*Spectrochim Acta A*, **2004**, 60 (1-2): 377-384.

63) 聚二烯丙基二甲基氯化铵与核酸相互作用的共振光散射光谱及分析应用

周颖琳, 常文保, 李元宗

*分析化学*, **2004**, 32 (2) :169-173.

64) 由不同功能单体合成的对羟基苯甲酸分子印迹聚合物识别特性的实验和理论研究

孙宝维, 武利庆, 李元宗

*化学学报*, **2004**, 62 (6): 598-602.

- 65) Reducing power: the measure of antioxidant activities of reductant compounds  
Cheng ZY, Li YZ  
*REDOX REPORT*, 2004, 9 (4): 213-217.
- 66) Biotin–avidin amplified enzyme-linked immunosorbent assay for determination of isoflavone daidzein  
Jian-Tao He, Zhi-Hong Shi, Jin Yan, Mei-Ping Zhao, Zhen-Quan Guo and Wen-Bao Chang  
*Talanta*, 2004, 65(3), 621-626.
- 67) Determination of Papaverine by biotin-avidin amplified ELISA  
Jin Yan; Jing Wang; Mei-Ping Zhao; Wen-Bao Chang  
*Analytical Letters*, 2004, 37(14), 2977-2989.
- 68) Simultaneous Separation and Determination of Four Bioactive Constituents in Traditional Chinese Medicinal Tablet Xinkeshu by HPLC-DAD  
He Jianto, Shi Zhihong, Yan Jin, Zhao Meiping and Chang Wenhao  
*Chinese Journal of Chemistry*, 2004, 22:1211-1214.
- 69) Different biotinylation strategies for competitive immunoassay of estradiol  
Zhao JF, Wang YC, Li YZ, Chang WB.  
*CHINESE JOURNAL OF CHEMISTRY*, 2004, 22 (7): 708-713.
- 70) Comparison of microwave-assisted and ultrasound-assisted extraction for determination of main water-soluble bioactive constituents in traditional Chinese medicinal preparation Tongmaichongji by HPLC-DAD  
He JT, Shi ZH, Chang WB.  
*JOURNAL OF LIQUID CHROMATOGRAPHY & RELATED TECHNOLOGIES*, 2004, 27 (11): 1769-1784.
- 71) Analysis of 8 synthetic anorexics in adulterated weight-reducing tonic  
Wang S, Mi JB, Chang WB.  
*CHINESE JOURNAL OF ANALYTICAL CHEMISTRY*, 2004, 32 (3): 320-324 ,
- 72) RP-HPLC determination of octanol-water partition coefficients for bioactive compounds from Chinese herbal medicines  
Shi ZH, He JT, Yao TT, Chang WB.  
*JOURNAL OF LIQUID CHROMATOGRAPHY & RELATED TECHNOLOGIES*, 2004, 27 (3): 465-479.
- 73) Production and characterization of antirecombinant human erythropoietin (rhEPO) monoclonal antibody  
Yan J, Wang S, Mi JB, Guo ZQ, Chang WB.  
*JOURNAL OF IMMUNOASSAY & IMMUNOCHEMISTRY*, 2004, 25 (1): 91-101.
- 74) Study of Immunoassay Methods for Recombinant Human Erythropoietin (rhEPO) using Competitive ELISA

Jin Yan, Jiebo Mi, Wenbao Chang  
*Chinese Chemical Letters*, **2004**, 15, 939-942.

75) Micelle-mediated extraction of tanshinones from *Salvia miltiorrhiza* bunge with analysis by high-performance liquid chromatography

Shi ZH, He JT, Chang WB.  
*TALANTA*, **2004**, 64(2), 401-407.

76) Rapid Determination of Aristolochic Acid I and II in Some Medicinal Plants by High-Performance Liquid Chromatography

Wei Li, Runkai Li, Tao Bo, Huawei Liu, Xuefeng Feng, Shilin Hu  
*Chromatographia*, **2004**, 59, 233-236.

77) Separation and Determination of Biphenyl Nitrile Compounds by Microemulsion Electrokinetic Chromatography with Mixed Surfactants

S. Gong, T. Bao, L. Huang, K.A. Li, H. Liu  
*Electrophoresis*, **2004**, 25, 1058-1064.

78) Rapid Determination of Aristolochic Acid I and II in Some Medicinal Plants by Capillary Zone Electrophoresis

W. Li, S. Gong, D. Wen, B. Che, Y. Liao, H. Liu\*, X. Feng, S. Hu  
*J. Chromatogr. A*, **2004**, 1049, 211-217.

79) Separation Methods for Antibacterial and Antirheumatism Agents in Plant Medicines.

Dawei Wen, Yuping Liu, Wei Li, Huawei Liu  
*J. Chromatogr. B*, **2004**, 812, 101-117.

80) Separation Methods for Pharmacologically Active Xanthones

Tao Bo, Huawei Liu  
*J. Chromatogr. B*, **2004**, 812, 165-174.

81) Study on Rapid Determination of Aristolochic Acids in Aristolochia Medicinal Plants

LI Wei, CHE Baoquan, GONG Suxuan, CHEN Zheng, WEN Dawei, LIAO Yiping, LIU Huawei  
*Chin. J. Chromatogr.* **2004**, 22(4), 331-334.

82) Determination of dissociation constant of pharmacologically active xanthones by capillary zone electrophoresis

Xiaomu Wu, Suxuan Gong, Tao Bo and Huawei Liu  
*J. Chromatogr. A*, **2004**, 1061(2), 217-233.

83) Molecular spectroscopic study on the interaction between heparin and neutral red

Zhang L, Li N, Zhao FL, Li KA  
*CHINESE CHEMICAL LETTERS*, **2004**, 15 (6): 671-674.

84) Spectroscopic study on the interaction between methylen blue and chondroitin 4-sulfate and its analytical application

Zhang L, Li N, Zhao FL, Li K

*ANALYTICAL SCIENCES*, **2004**, 20 (3): 445-450.

85) Determination of proteins with Alizarin Red S by Rayleigh light scattering technique

Zhong H, Li N, Zhao FL, Li KA

*TALANTA*, **2004**, 62 (1): 37-42.

86) Characterization of hemoglobin immobilized on gamma-zirconium phosphate

Geng LN, Wang X, Li N, Xiang MH, Li KA

*COLLOIDS AND SURFACES B-BIOINTERFACES*, **2004**, 34 (4): 231-238.

87) Study on PEG-(NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub> aqueous two-phase system and distribution behavior of drugs

Li L, He CY, Li SH, Liu F, Su S, Kong XX, Li N, Li KA

*CHINESE JOURNAL OF CHEMISTRY*, **2004**, 22 (11): 1313-1318.

88) Capillary coated with layer-by-layer assembly of gamma-zirconium phosphate/lysozyme nanocomposite film for open tubular capillary electrochromatography chiral separation

Geng L, Bo T, Liu HW, Li N, Liu F, Li K, Gu JL, Fu RN

*CHROMATOGRAPHIA*, **2004**, 59 (1-2): 65-70.