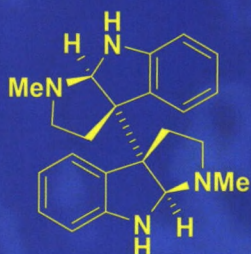


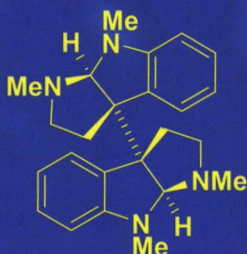
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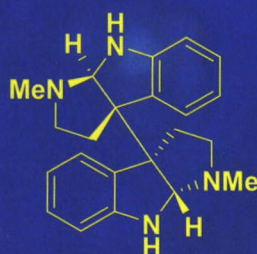
第 39 卷 第 10 期 Vol. 39 No. 10 2019



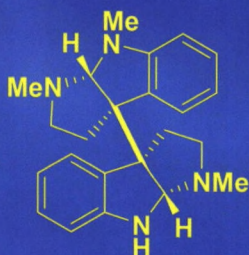
(+)-chimonanthine



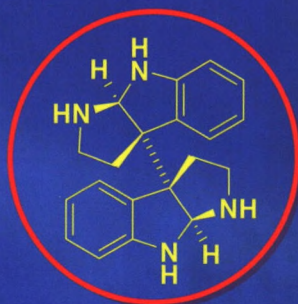
(+)-folicanthine



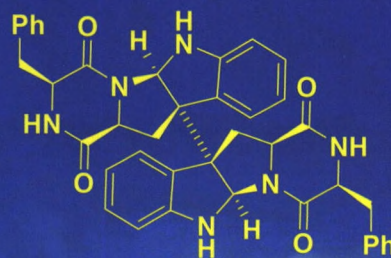
meso-chimonanthine



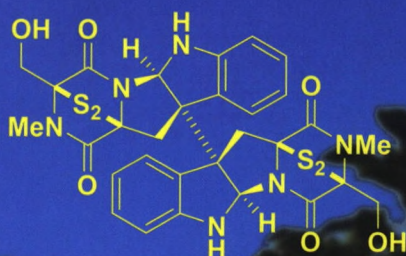
(-)-calycanthidine



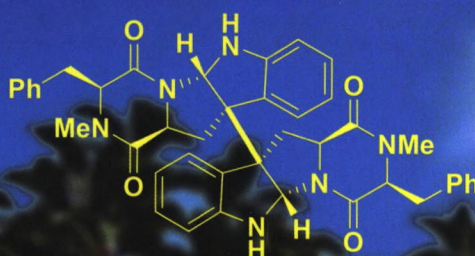
core structure



(+)-WIN 64821



(+)-chaetocin A



(-)-ditryptophenaline

ISSN 0253-2786



中国化学会主办
中国科学院上海有机化学研究所

有机化学 (月刊)

Chinese Journal of Organic Chemistry

(YOUJI HUAXUE)

第 39 卷 第 10 期 (总 371 期) 2019 年 10 月*

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* 通讯联系人.

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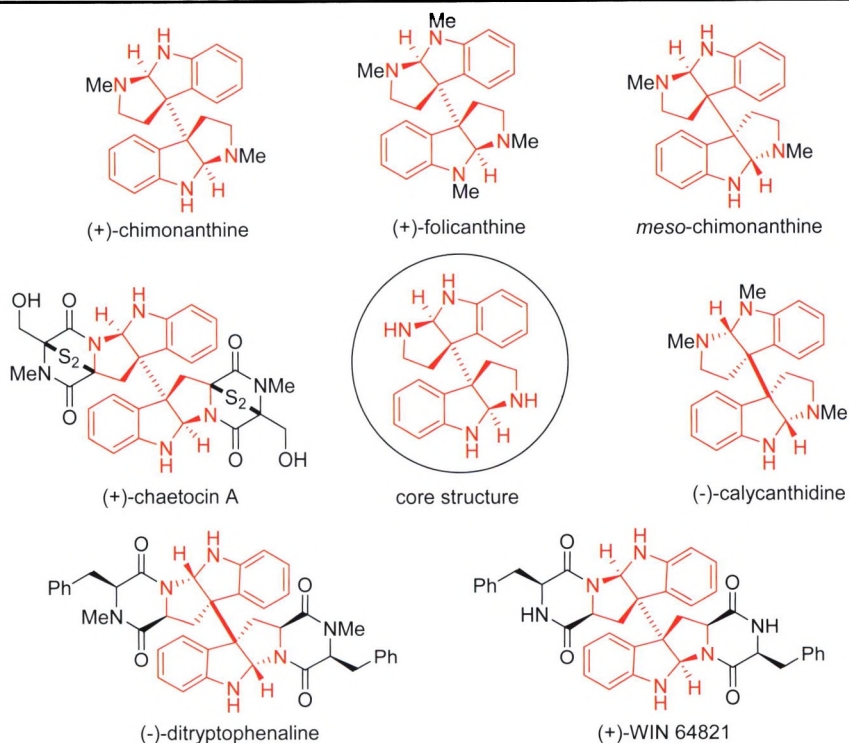
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On the Cover

Cyclotryptamine alkaloids constitute a large family of architecturally interesting alkaloids with a wide array of biological activities. As interesting synthetic targets, dimeric cyclotryptamine alkaloids bearing sterically hindered vicinal all-carbon quaternary stereocenters have attracted significant attention from the synthetic community. The synthetic efforts towards dimeric cyclotryptamine alkaloids in the last twelve years are summarized on page 2685.

REVIEWS

Progress in Total Syntheses of Dimeric Cyclotryptamine Alkaloids

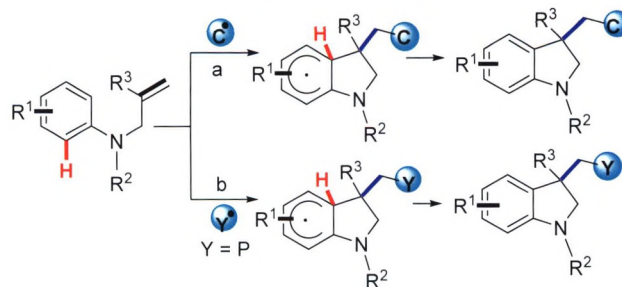


Shen, Xianfu; Peng, Tianfeng; Zhou, Yongyun; Xi, Yongkai; Zhao, Jingfeng; Yang, Xiaodong; Zhang, Hongbin*

Chin. J. Org. Chem. **2019**, 39(10), 2685

Stereocontrolled synthesis of the congested all-carbon quaternary stereocenters in these alkaloids presents a formidable challenge. This review summarizes the synthetic efforts towards dimeric cyclotryptamine alkaloids in the last twelve years.

Recent Advances of the Synthesis of Indolines by Unactivated Alkenes



The recent studies on the synthesis of various functionalized indolines using unactivated alkenes are described. It involves radical addition/cyclization reaction in the presence

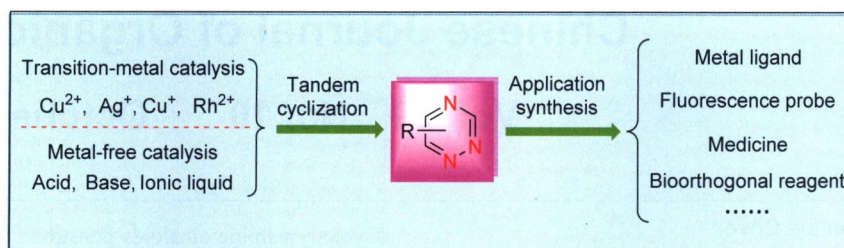
Liu, Yingjie*; Lin, Liqing; Han, Yinghui; Zhang, Xin

Chin. J. Org. Chem. **2019**, 39(10), 2705

of oxidizing agent, which is usually carried out under neutral reaction conditions using readily available oxidizing agents and different transition metals or under metal-free as catalysts

CONTENT

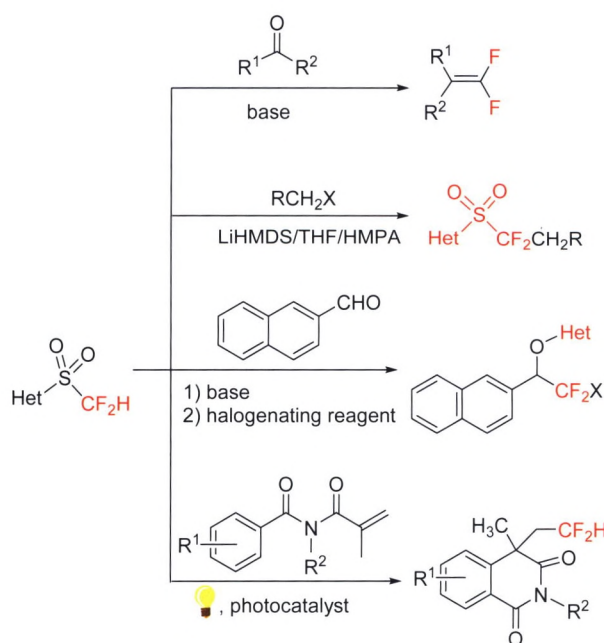
Progress in the Synthesis of 1,2,4-Triazines by Tandem Cyclization



The high-efficiency tandem synthesis method, reaction mechanism and application of 1,2,4-triazine compounds in recent ten years are reviewed by transition metal catalysis and non-metal catalysis classification. The tandem cyclization method and catalytic system of each reaction are introduced in detail, and the synthesis of 1,2,4-triazine compounds is prospected.

Li, Mingrui; Ding, Qifeng; Li, Boyang; Yu, Yang; Huang, He; Huang, Fei*
Chin. J. Org. Chem. **2019**, 39(10), 2713

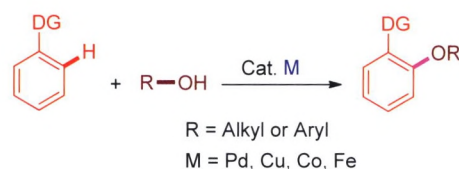
Progress of Difluoromethyl Heteroaryl Sulfones as Difluoroalkylation Reagents



Difluoromethyl heteroaryl sulfones have been developed recently as difluoromethyl sources, which introduce difluoromethyl groups into very different molecules through Julia-Kocienski olefination reaction, nucleophilic addition, nucleophilic substitution, and radical-mediated difunctionalization.

Tao, Xuefen*; Sheng, Rong; Bao, Kun; Wang, Yuxin; Jin, Yinxiu
Chin. J. Org. Chem. **2019**, 39(10), 2726

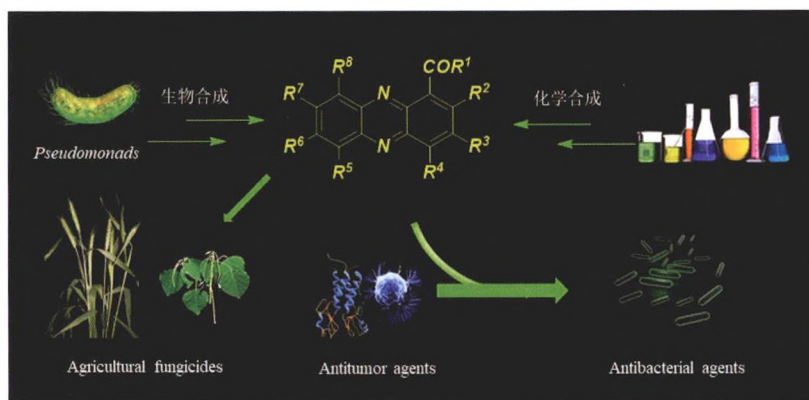
Advances on the Synthesis of Aryl Ethers via Dehydrogenative Coupling



The research advances on the synthesis of aryl ethers through dehydrogenative coupling are reviewed. The detailed substrate scopes and reaction mechanisms, as well as the limitations of current procedures and the prospects for the future, are discussed.

Tang, Hao; Luo, Junfei*; Xie Pan*
Chin. J. Org. Chem. **2019**, 39(10), 2735

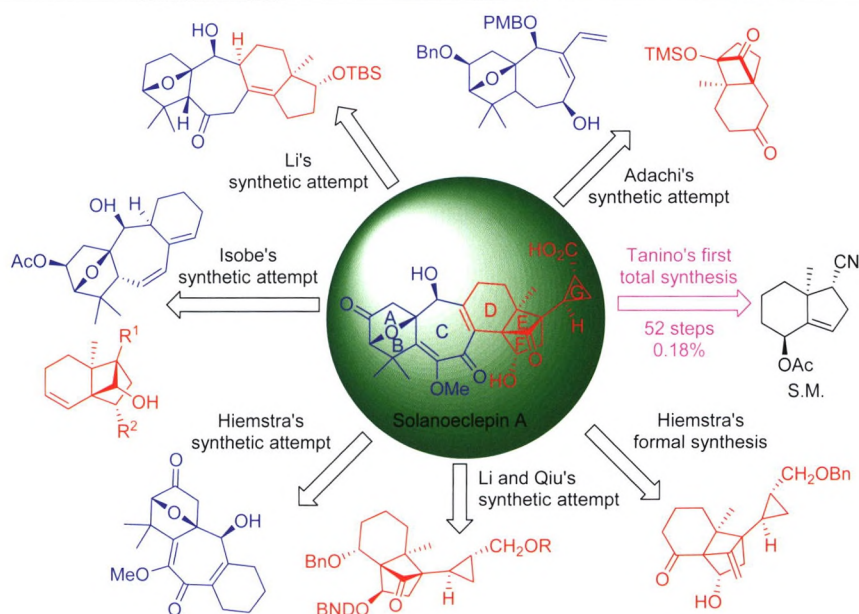
Research Progress of Phenazine-1-carboxylic Acid and Its Analogue



The biosynthesis and chemosynthesis of phenazine-1-carboxylic acid are summarized. At the same time, the diverse biological evaluations of its biosynthetic and chemosynthetic analogues are summarized.

Zhu, Xiang; Wu, Qinglai*; Li, Junkai*
Chin. J. Org. Chem. **2019**, 39(10), 2744

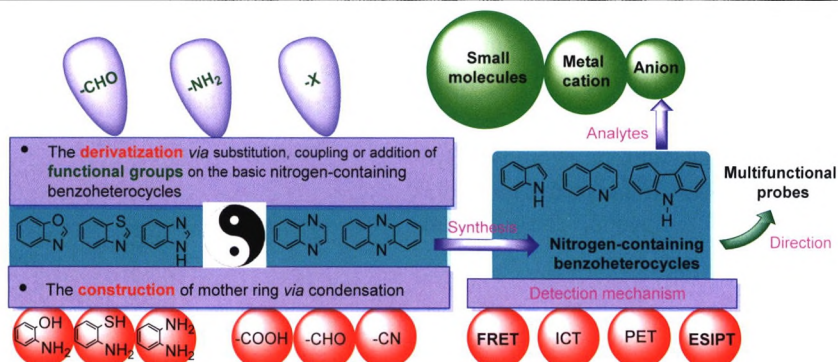
Recent Progresses in the Synthesis of Solanoeclepin A



Based on the known general biosynthesis of tetranortriterpenoids and Corey's biomimetic synthesis of glycinoclepin, a plausible biosynthetic pathway of solanoeclepin A is proposed. A schematic review on the synthetic studies of solanoeclepin A is provided.

Sun, Mao; Qiu, Fayang*; Li, Wei-Dong*
Chin. J. Org. Chem. **2019**, 39(10), 2759

Research Progress in Design, Synthesis and Application of Benzo Nitrogen-Containing Heterocyclic Fluorescent Probes

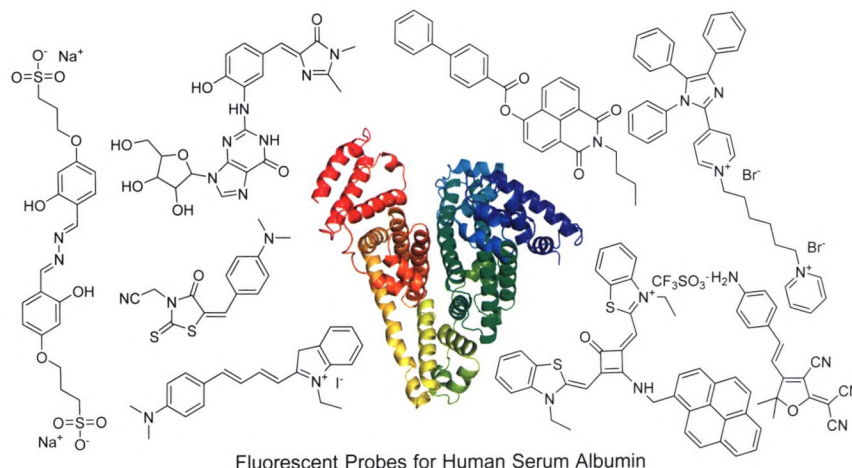


The synthesis methods, molecular structure, interaction mechanism, benzo five-/six-membered nitrogen-containing heterocyclic fluorescent probes containing the structure of benzoxazole, benzothiazole, benzimidazole, indole, carbazole, quinoline, benzopyrazine and phenazine are introduced. And their detection applications for a variety of analytes, such as small molecules, metal cations, anions and pH are reviewed.

Wang, Neng; Arulkumar, Mani; Chen, Xiaoyun*; Wang, Bowen; Chen, Sihong; Yao, Chen; Wang, Zhaoyang*
Chin. J. Org. Chem. **2019**, 39(10), 2771

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Recent Advances of Organic Fluorescent Probes for Detection of Human Serum Albumin

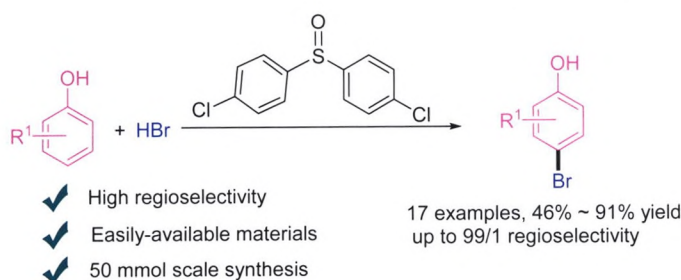


This article summarizes the recent reported organic-based fluorescent probes for human serum albumin detection, and carefully describes the chemical structures, sensing mechanisms, spectral features, limit of detection, and binding sites.

Lü, Taoyuze; Zhu, Kangning; Liu, Bin*
Chin. J. Org. Chem. **2019**, 39(10), 2786

ARTICLES

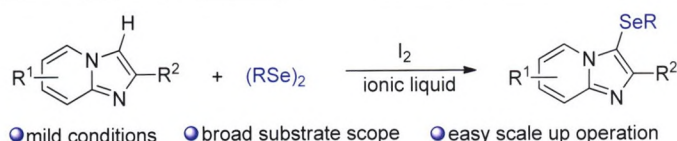
Steric Hindrance Effect Leading to Regioselective Bromination of Phenols with HBr



Ma, Xiantao*; Zhou, Kunjie; Ren, Mengjuan; Wang, Mengyu; Yu, Jing
Chin. J. Org. Chem. **2019**, 39(10), 2796

A mild and regioselective bromination of phenols with the cheap and easily-available HBr is developed. By replacing dimethyl sulfoxide (DMSO) with sulfoxides bearing sterically hindered substituents as the oxidant, the desired brominated phenols could be obtained in moderate to high yields with up to 99/1 regioselectivity.

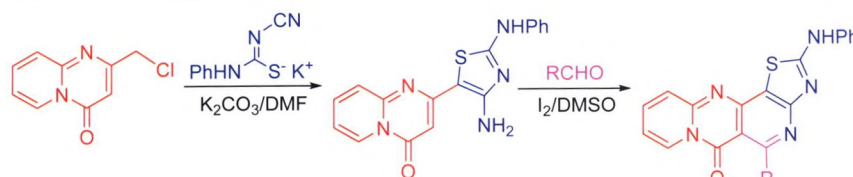
Eco-friendly C-3 Selenation of Imidazo[1,2-*a*]pyridines in Ionic Liquid



Wang, Xin*; Mu, Shiqiang; Sun, Ting; Sun, Kai*
Chin. J. Org. Chem. **2019**, 39(10), 2802

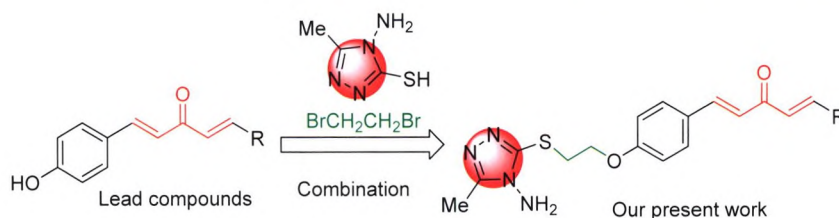
A general and mild C-3 selenation of imidazo[1,2-*a*]pyridines was developed under metal-free conditions.

Iodine-Dimethyl sulfoxide Promoted Synthesis of Novel Tetracyclic Thiazolo[3',2':2,3]pyrido[4,5-*d*]pyrido[1,2-*a*]pyrimidin-ones



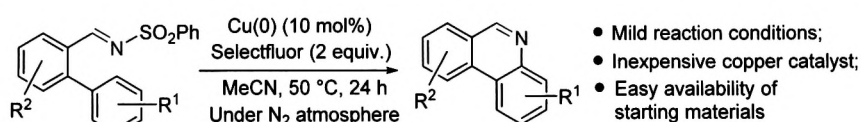
Xu, Jiao; Zhang, Lihong; Zhang, Meiqi; Liu, Xiubo; Ma, Wei*; Tang, Yixin; Wang, Daojin*
Chin. J. Org. Chem. **2019**, 39(10), 2808

An iodine-dimethyl sulfoxide (I_2 -DMSO) promoted efficient method is described for the synthesis of thiazolo[3',2':2,3]pyrido[4,5-*d*]pyrido[1,2-*a*]pyrimidin-5-ones (**5**) via Pictet-Spengler cyclization. The key intermediate, 2-(3-amino-5-phenylaminothiazolo-2-yl)-4*H*-pyrido[1,2-*a*]pyrimidin-4-one (**3**), was readily prepared from 2-chloromethyl-4*H*-pyrido[1,2-*a*]pyrimidin-4-one (**1**) with potassium *N*-phenyl-*N'*-cyanoimidothiocarbamate (**2**) by Thorpe-Ziegler isomerization.

Syntheses and Biological Activities of
1,4-Pentadien-3-one Derivatives Con-
taining Thioether Triazole Moiety

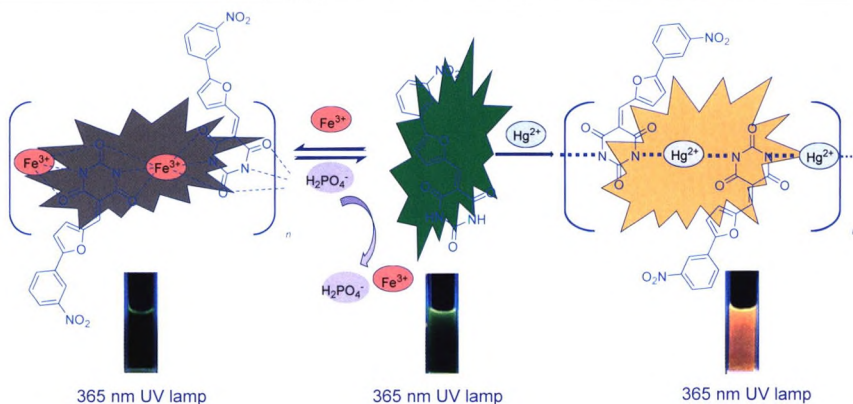
Chen, Ying; Li, Pu; Chen, Mei; Su, Shijun;
He, Jun; Zhang, Min; Liu, Liwei; Xue, Wei*
Chin. J. Org. Chem. **2019**, 39(10), 2813

The 1,4-pentadien-3-one derivatives containing thioether triazole were designed and synthesized. The bioassays results reveal that some of the target compounds exhibit better activities against *X. citri*, *X. oryzae* and *R. solanacearum* than positive control of bismethiazol.

Copper(0)/Selectfluor System-Catalyzed
Tandem Annulation/Aromatization of *o*-
Aryl Benzenesulfonylimides: A Facile
Synthesis of 6*H*-Phenanthridines

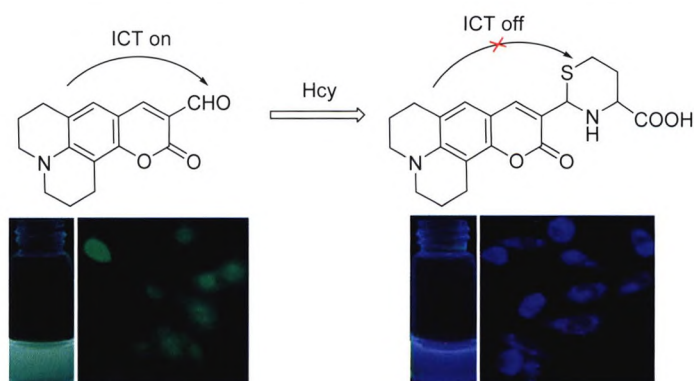
Zheng, Limeng; Shi, Dongdong; Bao, Han-
yang; Liu, Yunkui*
Chin. J. Org. Chem. **2019**, 39(10), 2821

A facile and efficient method for the synthesis of 6*H*-phenanthridines has been successfully developed involving a copper(0)/Selectfluor system-catalyzed tandem annulation/aromatization of *o*-aryl benzenesulfonylimides. A variety of substituted 6*H*-phenanthridines were synthesized in moderate to good yields under mild reaction conditions.

A Novel Fluorescent Sensor Based on
Aryl-furfural Functionalized Barbituric
Acid for Recognition and Separation of
 $\text{Fe}^{2+}/\text{Fe}^{3+}$ 

Zhu, Wenbo; Zhu, Wei; Ding, Jindong; Ma,
Xiaoqiang; Yao, Hong; Zhang, Youming;
Lin, Qi*; Wei, Taibao*
Chin. J. Org. Chem. **2019**, 39(10), 2829

A novel fluorescent sensor bearing 5-(3-nitrophenyl)-furan-2-carbaldehyde functionalized barbituric acid derivative (QS) was synthesized. QS showed different fluorescence identification ability for aqueous solution of Hg^{2+} and Fe^{3+} . The addition of Hg^{2+} enhanced the fluorescence intensity of QS to orange fluorescence and the addition of Fe^{3+} quenched the fluorescence intensity of QS, then the detection duration is real-time.

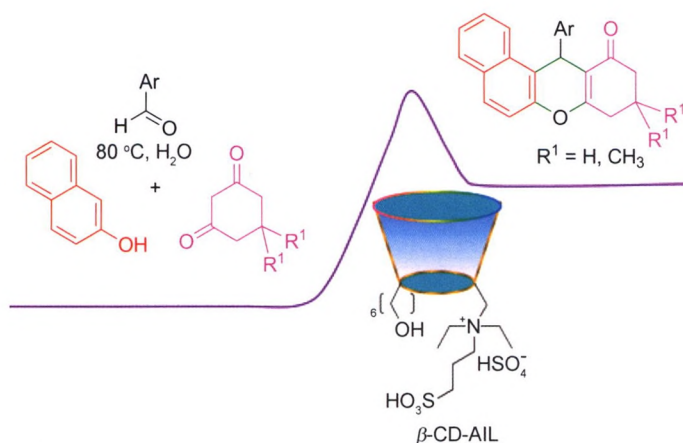
Ratiometric Fluorescent Probe for Ho-
mocysteine and Cysteine Based on the
Aldehyde Functionalized Coumarin and
Successful Bioimaging Application

Cheng, Xiaohong*; Xu, Ke; Qu, Shaohua;
Ruan, Zhijun
Chin. J. Org. Chem. **2019**, 39(10), 2835

Compound **C2** could act as a new ratiometric fluorescent probe for homocysteine over cysteine, glutathione and other amino acids, and was successfully applied to cell imaging with ratiometric fluorescent methods.

CONTENT

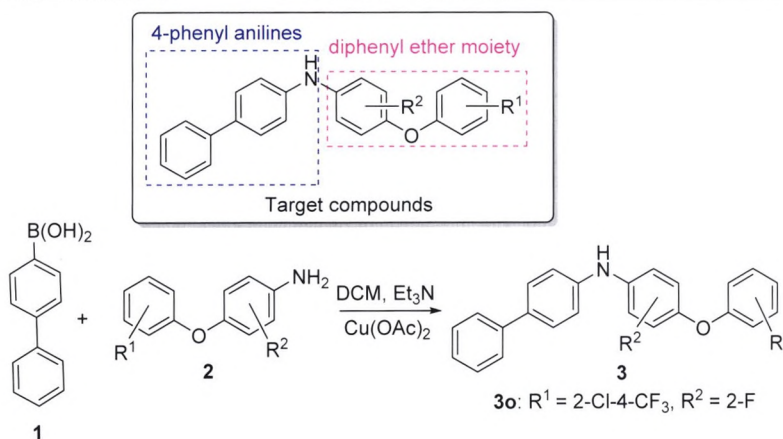
Synthesis of Tetrahydrobenzo[a]xanthen-11-ones Catalyzed by Acid Ionic Liquid Functionalized β -Cyclodextrin in Water



Liu, Xiaoqin; Wang, Fei; Sun, Hui; Zheng, Mengya; Wang, Hualan; Gong, Kai*
Chin. J. Org. Chem. **2019**, 39(10), 2843

A high efficient, eco-friendly and convenient methodology for the synthesis of 12-aryl-8,9,10,12-tetrahydrobenzo[a]xanthen-11-ones has been developed through one-pot condensation reaction of aromatic aldehydes, β -naphthol and cyclic 1,3-dicarbonyl compounds in the presence of β -cyclodextrins functionalized with acid ionic liquid (β -CD-AIL) as catalyst in water.

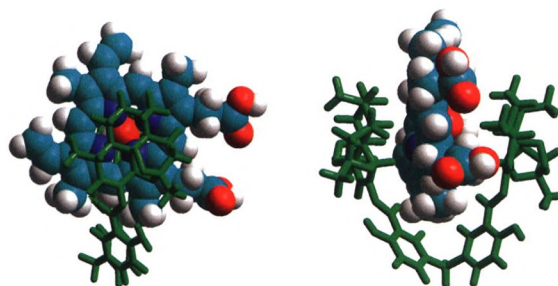
Synthesis and Biological Activities of New 4-Phenylanilines Containing the Diphenyl Ether Moiety



Wang, Wanqiang; Cheng, Lan; Peng, Hongying; Yao, Weizhong; Zhang, Rui; Chen, Cheng*; Cheng, Hua*
Chin. J. Org. Chem. **2019**, 39(10), 2851

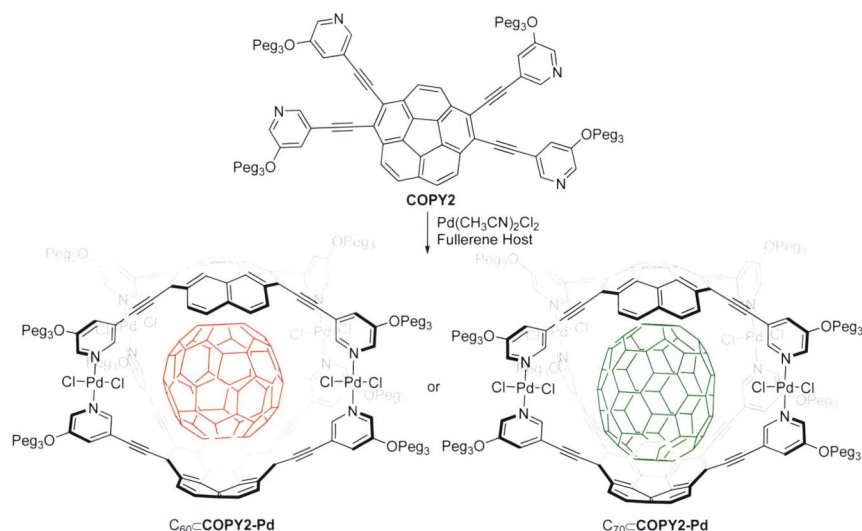
According to the principle of "splicing-up" bioactive substructures, a new series of 4-phenylanilines bearing the diphenyl ether moiety were designed, synthesized, and fully characterized. Moreover, the inhibitory activities of these compounds were evaluated against succinate-cytochrome reductase (SCR). The target compound **3o** exhibited an inhibition rate of 46.44% at a concentration of $10 \mu\text{mol} \cdot \text{L}^{-1}$, which demonstrated potential values for further investigations.

Syntheses and Property Evaluation of *N*-Salicylaldehyde Hydrazone Modified 11-Azaartemisinins and Their Derivatives



Li, Sicong; Ji, Shaocong; Zhao, Liang; Liao, Xiaoyu; Liu, Chuanfeng; Tang, Haodong; Shu, Zhengning; Yang, Peng*; Pei, Yuehu*
Chin. J. Org. Chem. **2019**, 39(10), 2860

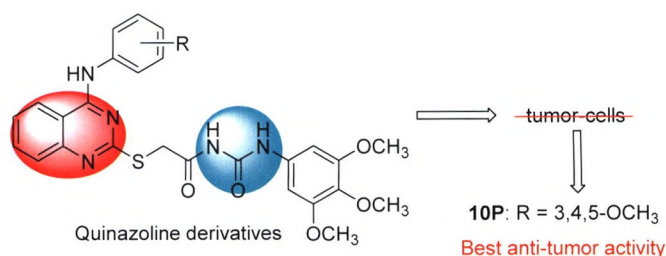
N-Salicylaldehyde hydrazone modified 11-azaartemisinins and their deoxy analogues were designed and synthesized. The results show that **3** adopts a tweezer-like conformation due to the intramolecular hydrogen binding, which enables it to bind hemin in 1 : 1 ratio. Moreover, calix[4]carbazole could interact with **3** and enhance its solubility in water, which paves the way for the further evaluation of bioactivities of **3**.

Self-Assembled of Corannulene-Based
Molecular Cage with Fullerenes as Tem-
plate

A tetrapyrrolyl substituted corannulene derivative **COPY2** was designed and synthesized. Fullerenes were used not only as a template agent for constructing target molecular cages, but also as a stabilizer for molecular cages. Through fullerene replacement experiment and fullerene mixture competitive complexation experiment, ligand **COPY2** showed stronger complexation ability to C_{60} . Therefore, the ligand **COPY2** can be used to the enrichment of C_{60} at room temperature.

Sun, Weidong; Ye, Lin; Liu, Jia; Zheng, Lu;
Guo, Wencai; Han, Senkai; Shao, Cheng-
yuan; Jiang, Hua*

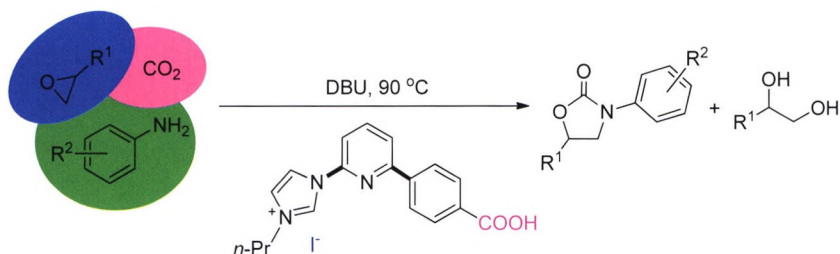
Chin. J. Org. Chem. **2019**, 39(10), 2867

Design, Synthesis and Antitumor Activity
Evaluation of 4-Aminoquinazoline Deri-
vatives Containing Urea Moiety

Li, Erdong; Meng, Yaqi; Zhang, Luye;
Zhang, Yang; Wang, Jikuan; Zhang, Dan-
qing; Song, Panpan; Xin, Jingchao; Li, Na;
Zheng, jiaxin; Ke, Yu*; Liu, Hongmin*;
Zhang, Qiurong*

Chin. J. Org. Chem. **2019**, 39(10), 2875

A series of novel 4-aminoquinazoline derivatives bearing urea moiety were designed, synthesized and evaluated for antitumor activities against four human cancer cell lines of MCF-7, MGC-803, SW620 and A549. Among them, compound **10p** showed the best antitumor activity against MGC-803, SW620 and A549 cancer cell lines, with the IC_{50} values of (7.02 ± 0.46) , (6.00 ± 0.78) and $(7.04 \pm 1.11) \mu\text{mol} \cdot \text{L}^{-1}$, respectively.

Pyridine Bridged Organocatalyst for the
Synthesis of 3-Aryl-2-oxazolidinones
from Carbon Dioxide, Terminal Epoxide,
and Aryl Amine

A series of carboxyl group or hydroxyl group functionalized organocatalysts were synthesized and were applied in three component reaction of carbon dioxide with epoxide, and aryl amines for the synthesis of 3-aryl-2-oxazolidinones. The method allows the reaction to smoothly proceed in the mild reaction conditions, together with excellent substrates scope of epoxides and aryl amines.

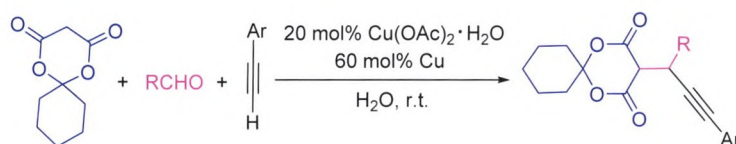
Liu, Quanyao; Shi, Lei; Liu, Ning*

Chin. J. Org. Chem. **2019**, 39(10), 2882

CONTENT

Efficient Synthesis of 5-(1-Phenyl-3-phenylprop-2-ynyl)-2,2-pentylidene-1,3-dioxane-4,6-dione Derivatives

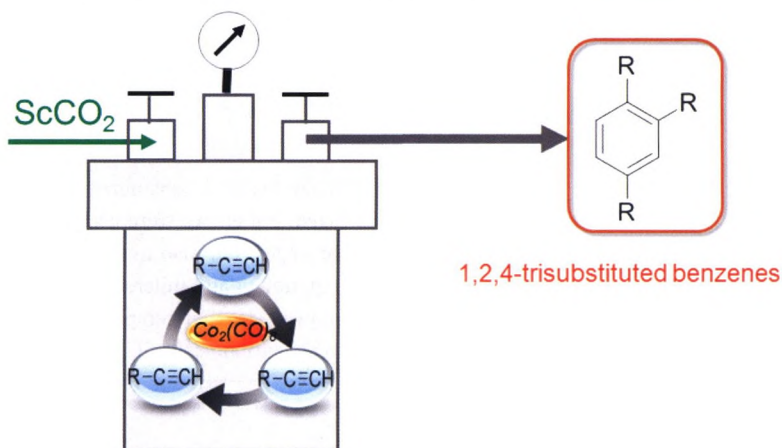
Fan, Naili; Xu, Zhaohui*; Xiang, Zhengbing; Xiao, Qiang; Liao, Chuanwen*
Chin. J. Org. Chem. **2019**, 39(10), 2892



A convenient and efficient approach for the synthesis of 5-(1-phenyl-3-phenylprop-2-ynyl)-2,2-pentylidene-1,3-dioxane-4,6-dione derivatives through three-component reaction of aldehydes with 2,2-pentylidene-1,3-dioxane-4,6-dione and arylacetylene in the presence of $\text{Cu}(\text{OAc})_2 \cdot \text{H}_2\text{O}/\text{Cu}$ is described. The synthetic procedure can provide the advantages of tolerating a wide range of aldehydes with good to excellent yields, mild conditions, simple operation, and excessive copper reused.

Carbonyl Cobalt-Catalyzed Cyclotrimerization of Terminal Alkynes in Supercritical Carbon Dioxide

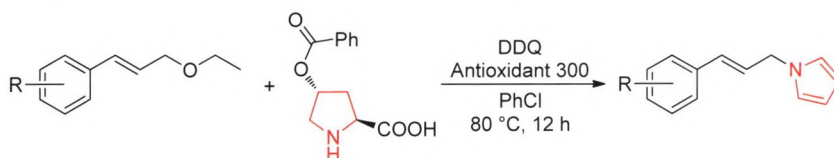
Wang, Yaqi; Yin, Qiang; Guo, Dun; Han, Limin; Sun, Qi; Hong, Hailong; Suo, Quanling*
Chin. J. Org. Chem. **2019**, 39(10), 2898



Cyclotrimerization of terminal alkynes catalyzed by $\text{Co}_2(\text{CO})_8$ in pure ScCO_2 has been studied to obtain 1,2,4-trisubstituted benzene derivatives with excellent selectivity.

ipso-Oxidation of Allyl Ether/Decarboxylative Aromatization Cascade Strategy via Oxocarbenium Activation: A Novel Approach for the Synthesis of *N*-Alkyl Pyrroles

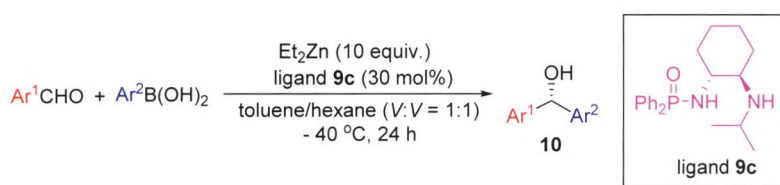
Li, Xubin; Zhou, Chen; Liu, Xingtong; Wang, Teng; Yu, Xinhong*; Ma, Hongmei*; Li, Cuiqing*
Chin. J. Org. Chem. **2019**, 39(10), 2906



An *ipso*-oxidation of allyl ether/decarboxylative aromatization cascade strategy is reported, resulting in the formation of *N*-alkyl pyrroles via oxocarbenium activation. This transformation, which involves formation of C—N bond and cleavage of C—O bond, provides a novel protocol that furnishes *N*-alkyl pyrroles in 29%~71% yields with good functional group tolerance.

Asymmetric Synthesis of Diarylmethanols by Chiral Phosphoramidate Ligands

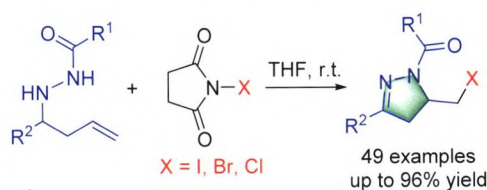
Guo, Qingjun*
Chin. J. Org. Chem. **2019**, 39(10), 2912



In order to improve the application of chiral phosphoramidate ligands in catalytic asymmetric reactions, thiophosphoramidate, which was synthesized from *trans*-1,2-cyclohexanediamine was used as a catalyst to synthesize chiral diarylmethanol compounds through addition reaction. The catalytic activity of the ligand in the asymmetric addition reaction of arylalkyl zincs to aromatic aldehyde can be as high as 94% *ee* under the optimized reaction conditions in the presence of 30 mol% **9c** and the corresponding chiral diarylmethanol compound was obtained with the yields of >90%.

Synthesis of Pyrazolines by Cascade
Oxidation/Halogenoaminocyclization Re-
action of HomoallylhydrazidesLi, Pengfei; Huang, Danfeng; Yang, Tianyu;
Deng, Zhoubin; Wang, Kehu; Wang, Junjiao;
Su, Yingpeng; Hu, Yulai*

Chin. J. Org. Chem. 2019, 39(10), 2920



provide facile access to pyrazolines in good yields.

An efficient cascade oxidation/halogenoaminocyclization of homoallylhydrazides with *N*-halogen-succinimide was developed without the addition of other additives under mild reaction conditions toA Novel Method for the Synthesis Tri-
arylphosphines under Transition-Metal-
Free Conditions

Yin, Qing; Yu, Xiaoqiang*; Bao, Ming

Chin. J. Org. Chem. 2019, 39(10), 2930

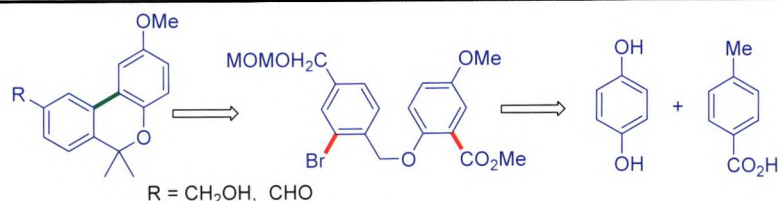
Triarylphosphines play an important role in pharmaceutical synthesis and transition-metal-catalyzed reactions. A novel method for the synthesis of triarylphosphines via base-promoted C(sp²)-P cross-coupling reactions of alkyldiphenylphosphines with aryl halides is described.

NOTES

Total Synthesis of Pulchrol and Pulchral

Guo, Dongdong; Zhang, Wuxia; Gao, Wei-
mei; Guo, Xiaodi; Wang, Yongqiang*

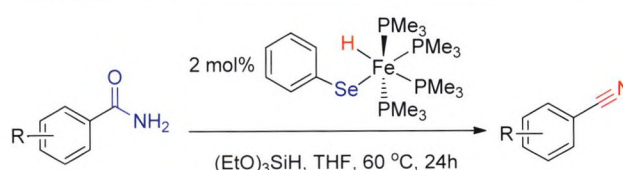
Chin. J. Org. Chem. 2019, 39(10), 2936



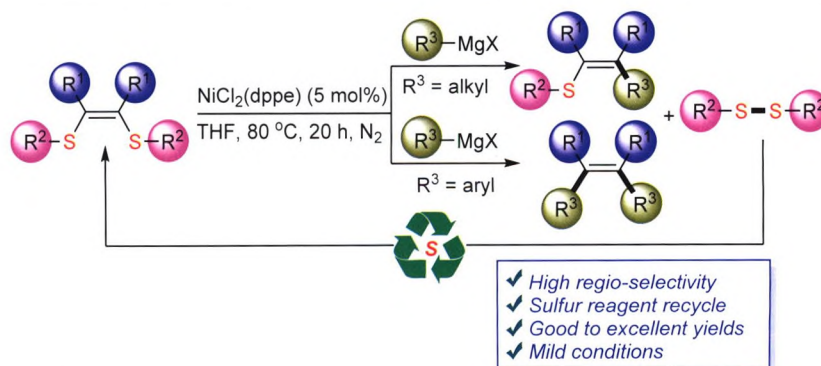
The total synthesis of natural products pulchrol and pulchral with antiprotozoan activity was reported, starting from the cheap hydroquinone and 4-methylbenzoic acid and using palladium-catalyzed intramolecular decarboxylation coupling reaction of arene carboxylic acids with aryl bromides as the key reaction.

Catalytic Effect of Iron Hydrides on De-
hydration of Primary Amides to NitrilesZheng, Tingting; Wang, Yangyang; Yang,
Zaixiao; Sun, Hongjian; Li, Xiaoyan*

Chin. J. Org. Chem. 2019, 39(10), 2941

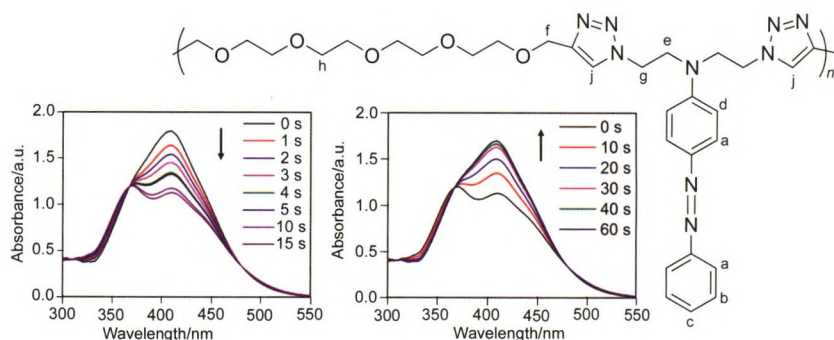
Three *cis*-selenophenolato iron hydrides, *cis*-[(ArSe)FeH(PMe₃)₄] (Ar = Ph, *p*-MeOC₆H₄ and *o*-MeC₆H₄), have good catalytic effect on the dehydration of primary amide to nitrile under mild conditions using (EtO)₃SiH as reducing agent. The catalytic system is well tolerated to the substituents on the benzene rings in aromatic amides.Nickel-Catalyzed Coupling of 1,2-Diaryl-
thio-1,2-diarylalkenes with Grignard Re-
agents for Synthesis of Multi-substituted
AlkenesWu, Yan; Luo, Fan; Pan, Shimin; Li, Yuhang;
He, Shuhua*

Chin. J. Org. Chem. 2019, 39(10), 2946

A convenient protocol for the synthesis of multi-substituted alkenes from (Z)-1,2-diarylthio-1,2-diarylalkenes with Grignard reagents was developed via the highly selective coupling of (Z)-1,2-diarylthio-1,2-diarylalkenes catalyzed by 5.0 mol% NiCl₂(dppe).

CONTENT

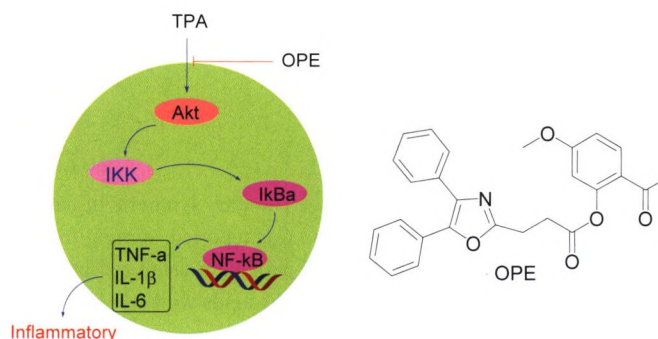
Synthesis and Self-Assembly of Alternating Amphiphilic Copolymer with Azobenzene Pendants



A novel alternating amphiphilic copolymer P(EG₄-a-NAzo) with azobenzene pendants was synthesized through the azide-alkyne click reaction, in which the hydrophilic unit was tetra glycol (EG₄) and *N,N*-bis[2-(1*H*-1,2,3-triazol-1-yl)ethyl]-4-phenyldiazanyl-aniline (NAzo) performed the hydrophobic unit. P(EG₄-a-NAzo) could self-assemble into worm-like aggregate in aqueous solution with initially low concentration. Because of its unique alternating topologies, the azobenzene moiety of P(EG₄-a-NAzo) micelle could not pile up orderly.

Wu, Jiacheng; Liu, Zhenghui; Yao, Yuan; Lin, Shaoliang*
Chin. J. Org. Chem. **2019**, 39(10), 2952

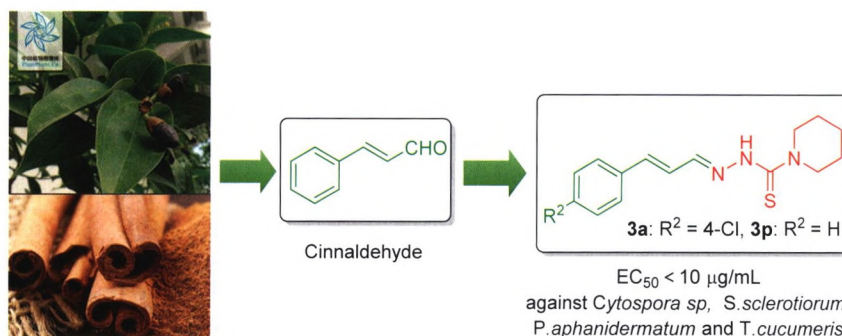
Synthesis and Anti-inflammatory Effects of Oxaprozin-Paeonol Ester



Xu, Xuetao; Chen, Jie; Lin, Zhiqing; Li, Dongli; Zhang, Kun; Sheng, Zhaojun*; Wang, Shaohua*; Zhu, Shun; Abdullah, M. Asiri
Chin. J. Org. Chem. **2019**, 39(10), 2958

Oxaprozin-paeonol ester (OPE) was designed to avoid the GI complications. Topical treatment of OPE could effectively improve the 12-*O*-tetradecanoylphorbol-13-acetate (TPA)-induced ear edema and expression of IL-1β, IL-6, and TNF-α. Also topical treatment of OPE could obviously down-regulate the activation of factor kappa-κB (NF-κB) by blocking IκB kinase (IKK) activities.

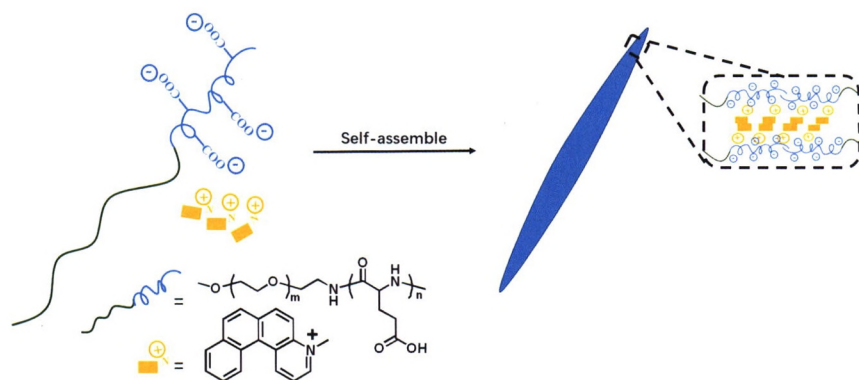
Design, Synthesis and Fungicidal Activity of Novel Piperidine Containing Cinnamaldehyde Thiosemicarbazide Derivatives



Zhang, Xuebo; Ma, Hangyu; Sun, Tengda; Lei, Peng; Yang, Xinling; Zhang, Xiaoming; Ling, Yun*
Chin. J. Org. Chem. **2019**, 39(10), 2965

Based on the structure of natural product cinnamaldehyde, a series of novel cinnamaldehyde thiosemicarbazone derivatives were designed and synthesized. All the title compounds showed obvious anti-fungal activity against 5 fungi. In particular, **3a** and **3p** showed excellent activity against *Cytospora* sp., *S. sclerotiorum*, *P. aphanidermatum* and *T. cucumeris* with the EC₅₀ values lower than 10 μg/mL.

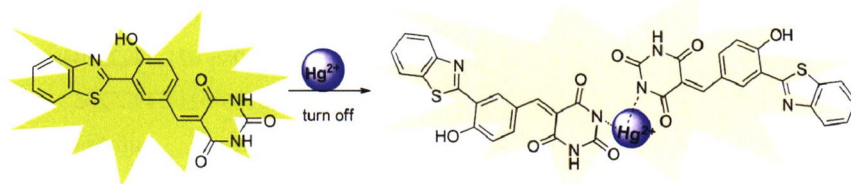
Study of Charge-Conjugated Self-Assembly Behavior of Amphiphilic Block Copolypeptides/Helicene



Amphiphilic block copolypeptides of polyethylene glycol-*b*-poly(*L*-glutamic acid) (PEG-*b*-PGlu) were synthesized to self-assemble with 4-methyl-4-aza[4]helicene onium ion (Me[4]H) in water through charge-conjugation. The morphology of the assemblies was studied by varying PGlu block length, the molar ratio of Glu unit/Me[4]H and pH value.

Wang, Jinglin; Shen, Chengshuo; Tang, Songchao*; Yao, Yuan*
Chin. J. Org. Chem. **2019**, 39(10), 2973

Synthesis and Application of Fluorescent Probe Containing Barbitone Unit



A novel excited-state intramolecular proton transfer (ESIPT) fluorescent probe containing barbitone unit was designed and synthesized from salicylaldehyde. Mechanism studies showed that mercury ions and probes formed a structure similar to “(thymine)T-Hg-T” which has high selectivity in determining mercury ions. The calibration curve indicated that there was a good linear correlation between the relative fluorescent intensities over the concentration range of 4~20 $\mu\text{mol}\cdot\text{L}^{-1}$ of Hg^{2+} ion.

Liu, Yu; Tang, Yongxing; Luo, Yueyang; Zhu, Yeting; Yang, Jin; Wei, Xinyu; Liu, Xiong; Zhao, Yunhui*
Chin. J. Org. Chem. **2019**, 39(10), 2980

HIGHLIGHTS

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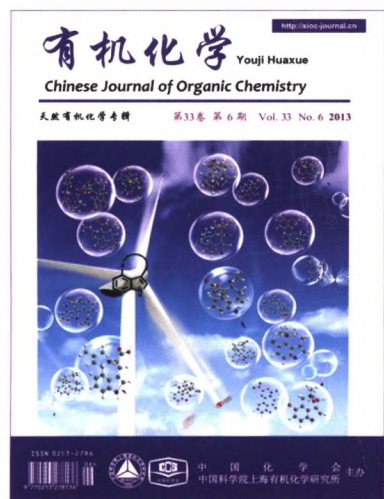
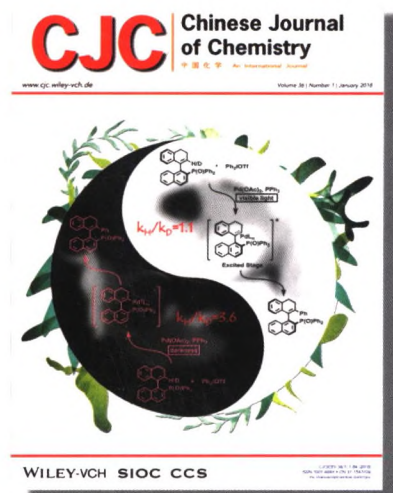
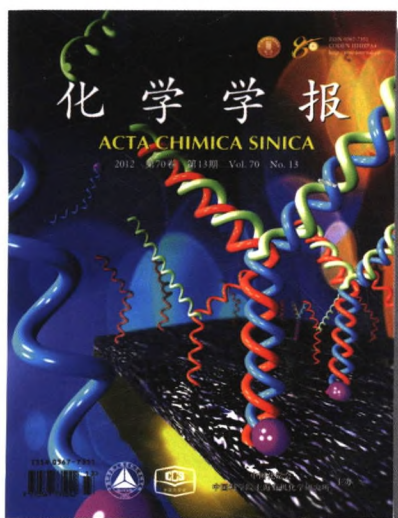
国内刊号: CN 31-1321/O6

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