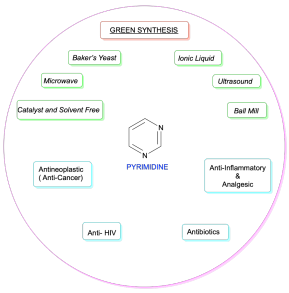
■ REVIEW

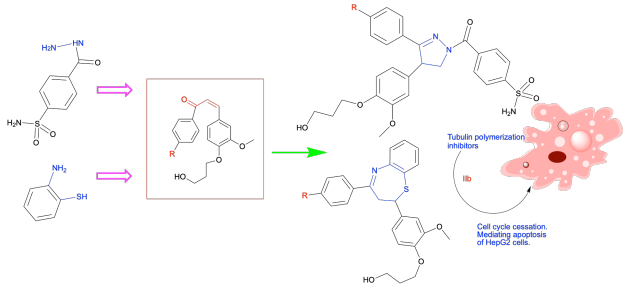
431 **A Comprehensive Study of Pyrimidine and Its Medicinal Applications**
Vikas Vilas Borge* and Juilee Vaze



Pyrimidine Synthesis Green Method Characterization Biological Activity

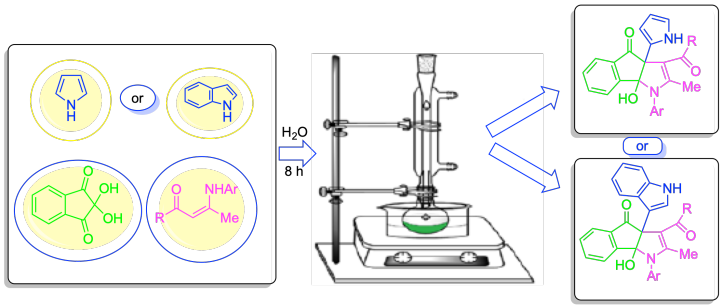
■ PAPERS

447 **Novel Pyrazolines and Benzothiazepines as Tubulin Polymerization Inhibitors: Synthesis, Biological Evaluation, and Molecular Docking**
Alaadin E. Sarhan,* Ashraf A. Sediek, Nagy M. Khalifa, and Essam E. Hasan



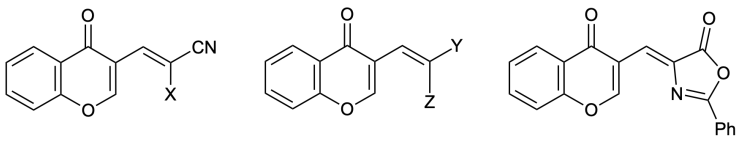
Pyrazoline Benzothiazepine Tubulin Apoptosis Molecular Docking

470 **An Unprecedented Synthesis of 8b-Hydroxy-3a-(1*H*-pyrrol-2-yl)/(1*H*-indol-3-yl)-3a,8b-dihydroindeno[1,2-*b*]-pyrrol-4(1*H*)-one Derivatives from Pyrrole/Indole with Ninhydrin and β−Enaminocarbonyls**
Mozhgan Masoudi*



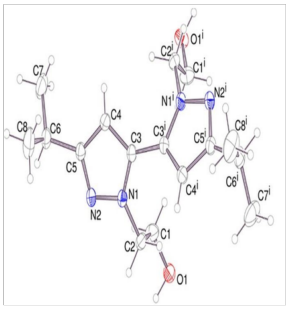
Heterocyclic System Pyrrole Indole Ninhydrin β-Enaminocarbonyl

482 **Chemical Reactivity of 1*H*-Benzimidazol-2-ylacetonitrile and Dimedone toward Simple Condensates Derived from 3-Formylchromone**
Magdy A. Ibrahim*



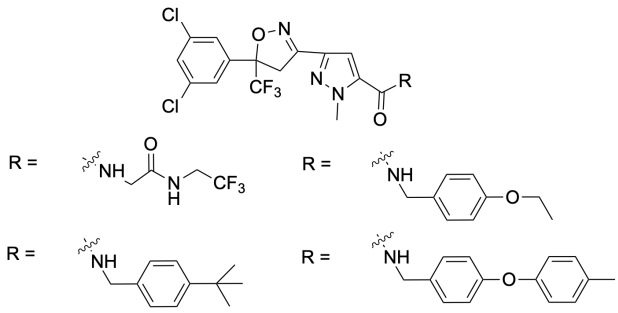
Chromone Pyrido[1,2-*a*]benzimidazole 1*H*-Benzimidazol-2-ylacetonitrile

495 **A New C,C-Linked Functionalized Bipyrazole: Synthesis, Crystal Structure, Spectroscopies and DFT Studies. Evaluation of the Antibacterial Activity and Catalytic Properties**
Ibrahim Bouabdallah, Tarik Harit,* Yahya Rokni, Mahmoud Rahal, Monique Tillard, Driss Eddike, Abdeslam Asehraou, and Fouad Malek*



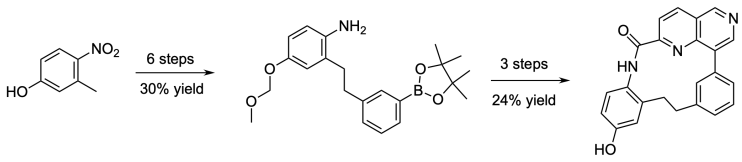
Antibacterial Activity Bipyrazolic Ligand DFT Catecholase Crystal Structure

512 **Design, Synthesis and Insecticidal Activity of 3-Arylisoxazoline-*N*-alkylpyrazole-5-carboxamide Derivatives against *Tetranychus urticae* Koch**
Shuhao Qu,* Lifei Zhu, Qiang Wang, and Xiaoli Wang



Arylisoxazoline N-Alkylpyrazole-5-carboxamide Insecticidal Activity *Tetranychus urticae* Koch

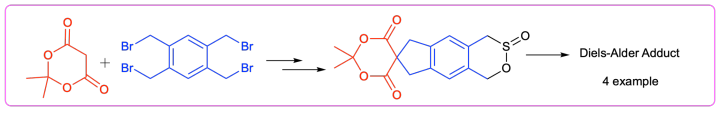
524 **Development of a Scalable Synthesis of SIRT1 Modulator Macrocycles**
János Tatai, Márk Molnár, Maud Villeneuve, Laure Haberkorn, and Miklós Nyerges*



Macrocyclization Naphthyridine Suzuki Coupling

■ SHORT PAPERS

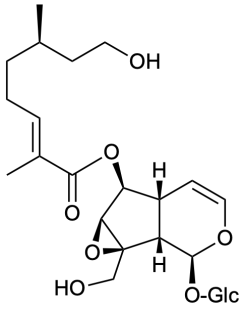
541 **Functionalization of Meldrum's Acid by Diels–Alder Approach**
Sambasivarao Kotha* and Vidyasagar Gaikwad



Meldrum's Acid Sultine Diels-Alder Reaction

549 **A New Iridoid Glycoside from *Santisukia pagetii***

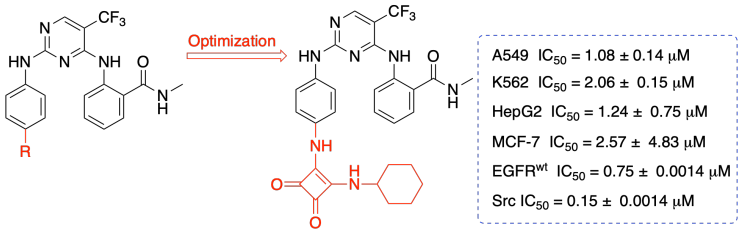
Poolsak Sahakitpichan, Nitirat Chimnoi, Chutima Srinroch, Chaleaw Petchthong, Somsak Ruchirawat, and Tripetch Kanchanapoom*



Santisukia pagetii Bigniniaceae Iridoid Glycoside

556 **Development of 5-Trifluoromethylpyrimidine Derivatives as Dual Inhibitors of EGFR and Src for Cancer Therapy**

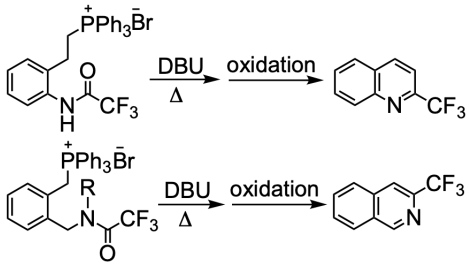
Qin Wang, Nian Rao, Li Liu,* Yi Le, and Longjia Yan*



EGFR Src Kinase Dual Inhibitor Cancer

573 **Synthesis of Trifluoromethyl Derivatives of Quinoline and Isoquinoline**

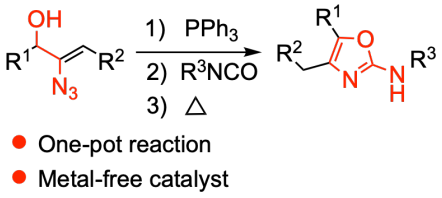
Aki Fujisaka, Daiki Aomatsu, Yoichiro Kakutani, Ryuya Terai, Kumiko Sakaguchi, Masahiro Ikejiri, and Kazuyuki Miyashita*



Trifluoromethyl Group 2-Trifluoromethylquinoline 3-Trifluoromethylisoquinoline Trifluoromethylated Heterocycle

585 **One-Pot Synthesis of Fully Substituted Oxazol-2-amines via Staudinger/Aza-Wittig/Isomerization Reaction**

Hai Xie,* Qing-Qing Hu, Xiu-Ting Qin, Jia-Min Liang, Lu- Li, Ya-Li Zhang, and Zhen Lu



- One-pot reaction
- Metal-free catalyst

Oxazol-2-amine Aza-Wittig Reaction Isomerization

■ TOTAL SYNTHESIS OF HETEROCYCLIC NATURAL PRODUCTS

591 Polyketides
593 Aromatics
594 Terpenes
598 Alkaloids
607 Miscellaneous

■ BRUSH UP YOUR HETEROCYCLES

609 Brush Up Your Heterocycles

Contributors To This Issue

573 Aomatsu, Daiki
495 Asehraou, Abdeslam
431 Borge, Vikas Vilas
495 Bouabdallah, Ibrahim
549 Chimnoi, Nitirat
495 Eddike, Driss
573 Fujisaka, Aki
541 Gaikwad, Vidyasagar
524 Haberkorn, Laure
495 Harit, Tarik
447 Hasan, Essam E.
585 Hu, Qing-Qing
482 Ibrahim, Magdy A.
573 Ikejiri, Masahiro
573 Kakutani, Yoichiro
549 Kanchanapoom, Tripetch
447 Khalifa, Nagy M.
541 Kotha, Sambasivarao
556 Le, Yi
585 Li, Lu-
585 Liang, Jia-Min
556 Liu, Li
585 Lu, Zhen
495 Malek, Fouad
470 Masoudi, Mozhgan
573 Miyashita, Kazuyuki
524 Molnár, Márk
524 Nyerges, Miklós
549 Petchthong, Chaleaw
585 Qin, Xiu-Ting
512 Qu, Shuhao
495 Rahal, Mahmoud
556 Rao, Nian
495 Rokni, Yahya
549 Ruchirawat, Somsak
549 Sahakitpichan, Poolsak
573 Sakaguchi, Kumiko
447 Sarhan, Alaadin E.
447 Sediek, Ashraf A.
549 Srinroch, Chutima
524 Tatai, János
573 Terai, Ryuya
495 Tillard, Monique
431 Vaze, Juilee
524 Villeneuve, Maud
512 Wang, Qiang
556 Wang, Qin
512 Wang, Xiaoli
585 Xie, Hai
556 Yan, Longjia
585 Zhang, Ya-Li
512 Zhu, Lifei