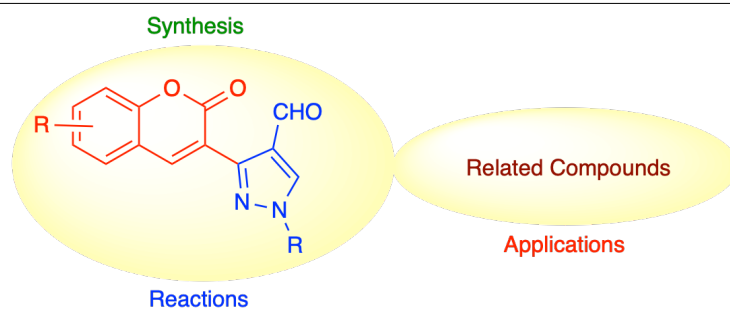


■ REVIEWS

- 561 **3-[2-Oxo-2H-chromen-3(6)(8)-yl]-1-aryl/heteroaryl-1H-pyrazole-4-carbaldehydes: Synthesis, Reactions and Applications**

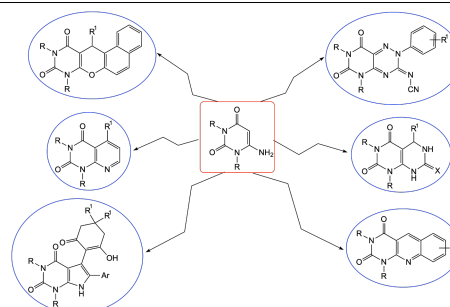
Ayat K. Alsolimani, Mohammed A. Assiri, and Tarik E. Ali*



Coumarin Pyrazole Synthesis Reaction

- 594 **Utility of 6-Aminouracils for Building Substituted and Heteroannulated Pyrimidines: A Comprehensive Review**

Magdy A. Ibrahim, Zeinab Hussain,* Nasser M. El-Gohary, Yassin A. Gabr, Hassan A. Allimony, and Al-Shimaa Badran

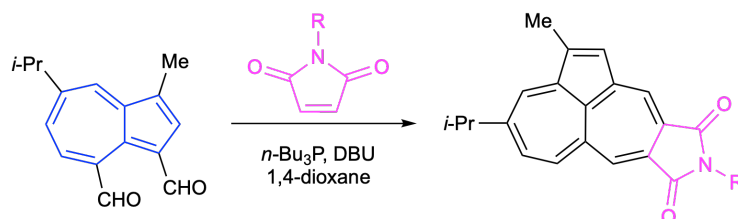


6-Aminouracil Condensation Reaction Carbon and Nitrogen Nucleophiles Substituted Pyrimidine Annulated Pyrimidine

■ COMMUNICATION

- 641 **Synthesis of Maleimide-Fused Aceheptylenes from Guaiazulene**

Taku Shoji,* Mayumi Uda, Tetsuo Okujima, Ryuta Sekiguchi, and Shunji Ito

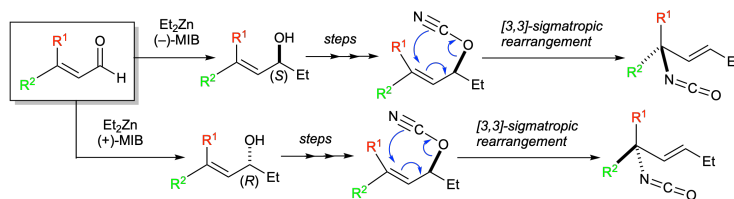


Aceheptylene Guaiazulene Cyclization

■ PAPERS

649 Stereocontrolled Synthesis of Nitrogen-Substituted Quaternary Stereogenic Centers: Lessons from a Synthetic Route to the Core Structure of Sphingofungin E

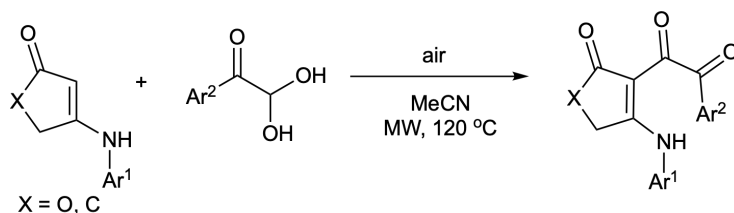
Yoshiyasu Ichikawa,* Takahiro Kinutani, Yoshimine Sakogawa, Keisuke Nakanishi, Rika Ochi, Seijiro Hosokawa, and Toshiya Masuda



Quaternary Stereogenic Center Rearrangement Allyl Cyanate Sphingofungin E Enantioselective Addition of Diethylzinc

664 Synthesis of 1,2-Dicarbonyls from Five-Membered Cyclic Enamines and Arylglyoxal Hydrates under Metal-Free Conditions

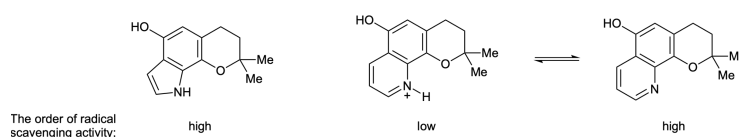
Wei Fan*



1,2-Dicarbonylation Metal-Free Condition Five-Membered Cyclic Enamine

680 Synthesis and Radical Scavenging Activities of Tocopherol Analogs Containing Heterocyclic Rings

Yuta Okayama,* Masataka Mochizuki, and Keiko Inami*

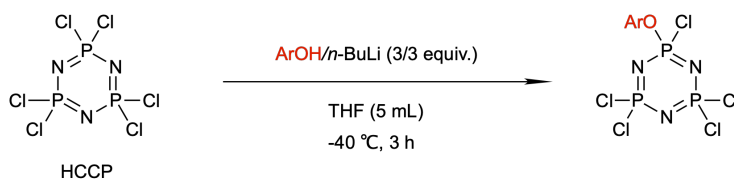


Tocopherol Analog Radical Scavenging Activity Quinoline Indole Benzimidazole

■ SHORT PAPERS

695 Synthesis of 2-Aryloxy-2,4,4,6,6-pentachlorocyclotriphosphazenes (N₃P₃Cl₅(OAr)): Monoaryloxylation of Hexachlorocyclotriphosphazene (N₃P₃Cl₆) and Mass Spectra of Chlorocyclotriphosphazene Derivatives. Difference between EI vs. ESI Methods

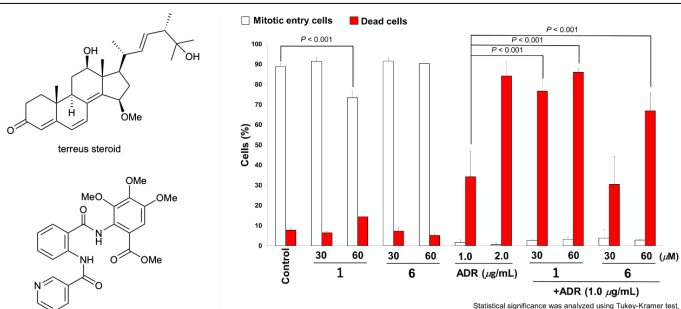
Manabu Kuroboshi,* Ryota Takahashi, and Hideo Tanaka



Cyclotriphosphazene Nucleophilic Substitution Mono-aryloxylation Mass Spectra

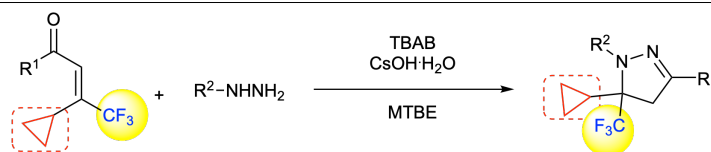
707 Chemical Structures and Cell Death Inducing Activities of the Metabolites of *Aspergillus terreus*

Takahiro Matsumoto,* Masaya Okayama, Hayato Yoshikawa, Shifu Maeda, Takahiro Kitagawa, and Tetsushi Watanabe*


Aspergillus terreus Terreus Steroid Adriamycin HeLa Cell Time-Lapse Cell Imaging

716 A Convenient Synthesis of 5-Trifluoromethyl-5-cyclopropyl-Substituted Pyrazolines

Yong-Bin Xie, Xiao-Dong Liu, Ming-Xu Zhang, Wen-Bo Chen,* Chun-Hui Xing,* and Long Lu*



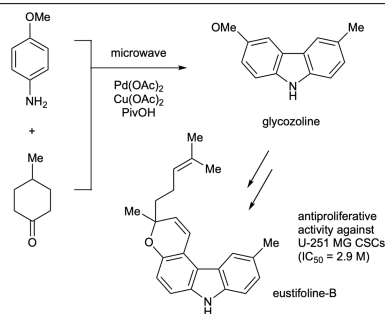
- easily accessible
- mild reaction conditions
- broad substrates scope
- good functional group tolerance

 25 examples
up to 93% yield

Pyrazoline Trifluoromethyl Cyclopropyl

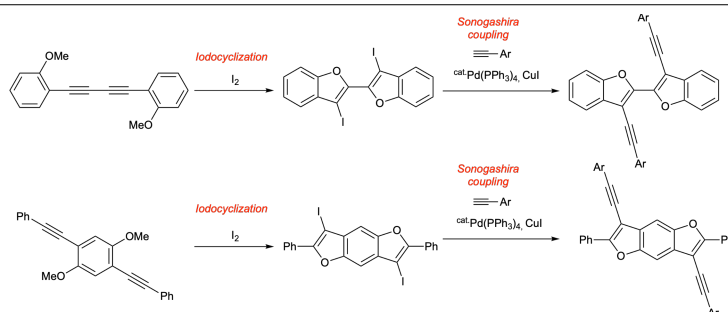
725 One-Pot Synthesis of Carbazoles by a Domino Reaction Using Microwave Heating and Antiproliferative Activities of Constituents from *Murraya* Plants Against Cancer Stem Cells

Kouta Ugawa, Momona Nakao, Chikako Sawada, Takahiro Matsumoto, Takahiro Kitagawa, Yutaro Ohki, Kousuke Araki, and Seikou Nakamura*


 Carbazole *Murraya koenigii* Microwave Cancer Stem Cell Human Astrocytoma U-251 MG Cell

734 Synthesis and Photophysical Properties of Diethynylated Bibenzofuran and Benzodifuran Derivatives

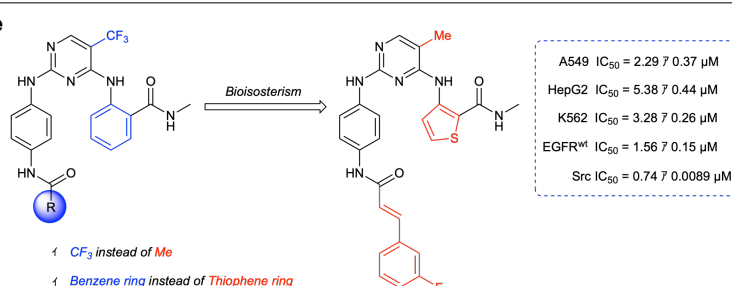
Takaya Hibino and Rui Umeda*



2,2'-Bibenzofuran Benzodifuran Iodocyclization Sonogashira Coupling

742 Synthesis and Biological Evaluation of 5-Methylpyrimidine Derivatives as Dual Inhibitors of EGFR and Src for Cancer Treatment

Yaqing Zuo, Kehui Chen, Ying Xu, Yi Le, and Longjia Yan*



Synthesis EGFR Src Dual Inhibitor Pyrimidine

■ TOTAL SYNTHESIS OF HETEROCYCLIC NATURAL PRODUCTS

- 759 Polyketides
 - 764 Aromatics
 - 769 Terpenes
 - 772 Steroids
 - 773 Alkaloids
 - 780 Miscellaneous
-

■ BRUSH UP YOUR HETEROCYCLES

- 781 Brush Up Your Heterocycles
-

Contributors To This Issue

561	Ali, Tarik E.
594	Allimony, Hassan A.
561	Alsolimani, Ayat K.
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594	Badran, Al-Shimaa
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