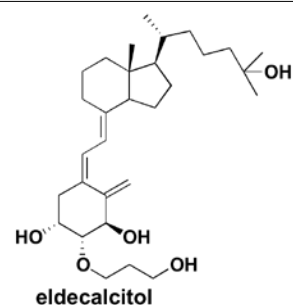


■ REVIEW

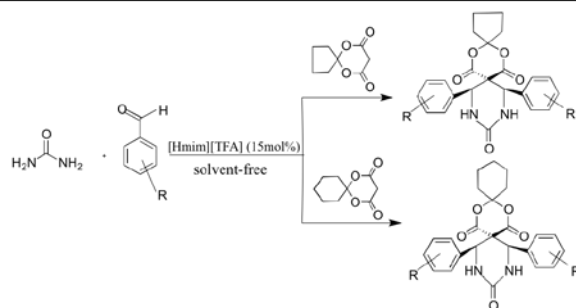
- 1013 **Diverse and Important Contributions by Medicinal Chemists to the Development of Pharmaceuticals: An Example of Active Vitamin D₃ Analog, Eldecalcitol**
Noboru Kubodera*



Active Vitamin D₃ Analog Eldecalcitol Calcitriol Medicinal Chemist Vitamin D

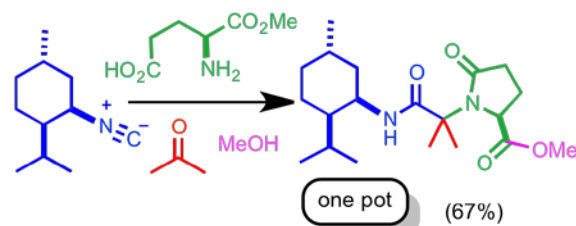
■ PAPERS

- 1031 **1-Methylimidazolium Trifluoroacetate Efficiently Catalyzed Three Component Synthesis of Diazaspiro[5.5]undecane-1,5,9-trione Derivatives under Solvent-Free Conditions**
Zhaohui Xu,* Houfu Zhang, Chunhua Lin, and Deyong Liu



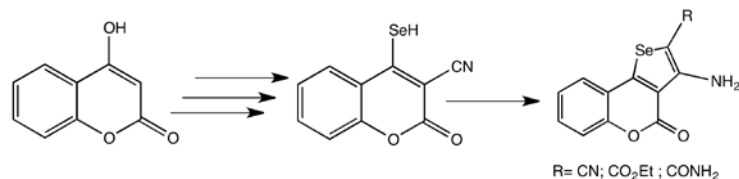
1-Methylimidazolium Trifluoroacetate 2,4-Dioxo-8,10-diazaspiro[5.5]undecane-1,5,9-trione Derivative Solvent-Free Reaction

- 1040 **A Biomimetic Approach to the Synthesis of Terpene-Amino Acid Conjugates. The Ugi Reaction in the Hypothetical Biosynthesis of Marine Natural Products**
Yoshiyasu Ichikawa,* Kenta Saito, Rika Mimura, Ayumi Kitamori, Akihito Matsukawa, Akifumi Ikeda, Toshiya Masuda, Hiyoshizo Kotsuki, and Keiji Nakano



Ugi Reaction Biomimetic Synthesis Terpene Marine Natral Product Isocyanide

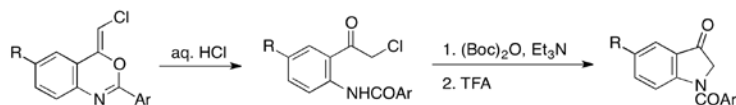
- 1054 **An Efficient Route for Synthesis and Reactions of Seleno-[2,3-c]coumarin**
Shams H. Abdel-Hafez,* Ahmed Elkhateeb, Adel A. Gobouri, Islam H. El Azab, and Gilbert Kirsch



Coumarineselenol Selenochromene Carbonitrile Selenochromene Carboxylate Selenochromene Carboximide and Carbohydrazide

1063 Synthesis of 1-Aroyl-1,2-dihydro-3*H*-indol-3-ones via Cyclization of *N*-[2-(2-Chloroacetyl)phenyl]benzamides with Triethylamine in the Presence of Di-*tert*-butyl Dicarbonate

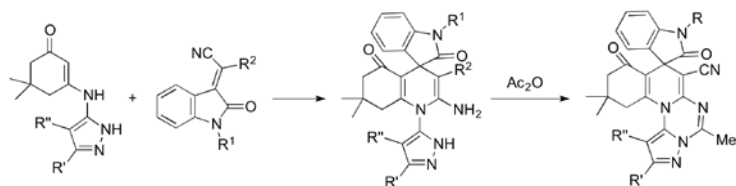
Kazuhiro Kobayashi,* Daiki Kado, and Kohei Nishikawa



1,2-Dihydro-3*H*-isoindol-3-one Indoxyl *N*-[2-(2-Chloroacetyl)phenyl]benzamide Di-*tert*-butyl Dicarbonate Ring Closure Reaction

1075 Synthesis and Antimicrobial Evaluations of Novel Spirocyclic 2-Oxindole Derivatives of *N*-(1*H*-Pyrazol-5-yl)-hexahydroquinoline Derivatives

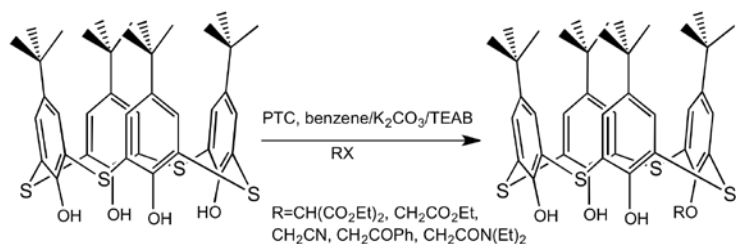
Said Ahmed Soliman Ghozlan, Muhammed Ali Ramadan, Amr Mohamed Abdelmoniem,* and Ismail Abdelshafy Abdelhamid*



Cyclic β -Enaminone Spirocyclic 2-oxindole Michael Addition Reaction Hexahydroquinoline Antimicrobial Evaluation

1085 Selective Synthesis of Monosubstituted *p*-*tert*-Butylthiacalix[4]arene under Phase Transfer Catalysis

Omran A. Omran*

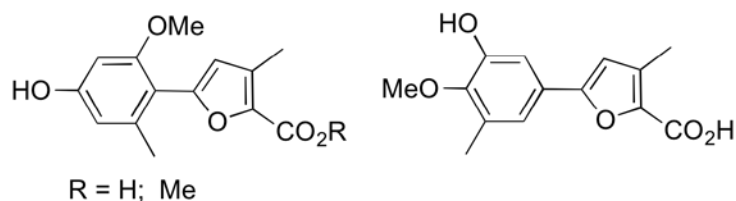


p-*tert*-Butylthiacalix[4]arene Selective Synthesis Phase Transfer Catalysis Alkylation Reaction

■ SHORT PAPERS

1095 Furan-2-carboxylic Acids from the Leaves of *Nicotiana tabacum* and Their Anti-Tobacco Mosaic Virus Activities

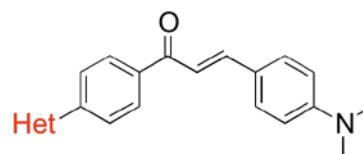
Chun-Bo Liu, Xin-Meng Xu, Qin-Peng Shen, Wei Zhang, Xiao-Feng Shen, Ye-Kun Yang, Feng-Mei Zhang, Pei He, Xiao-Xi Si, Ya-Dong Guo, Jian-Jun Xia,* and Guang-Yu Yang*



Furan-2-carboxylic Acid *Nicotiana tabacum* Anti-TMV Activity

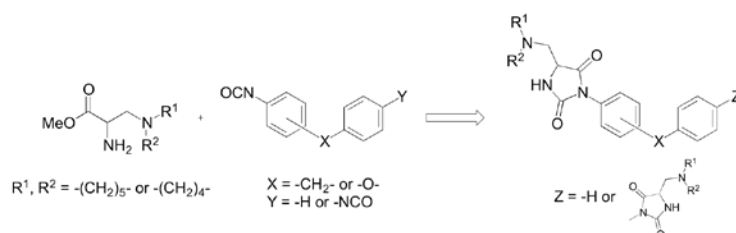
1102 Concise Synthesis and Biological Evaluation of Chalcone Derivatives Bearing *N*-Heterocyclic Moieties

Zewei Mao, Xi Zheng, Yuping Lin, Yan Qi, Chunyan Hu, Chunging Wan,* and Gaoxiong Rao*


 Chalcone Derivative *N*-Heterocyclic Moieties Synthesis Biological Evaluation

1111 Synthesis and Antibacterial Evaluation of Some New 5-Substituted Hydantoins and Novel Twin-Drug Type Derivatives

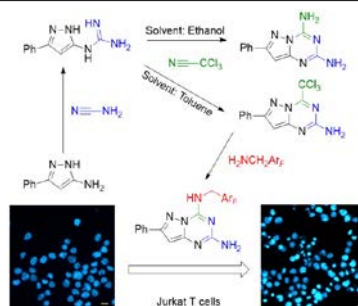
Makoto Furutachi, Fumiko Fujisaki, Reika Tsuru, Ayumi Ejima, Toshiaki Gondo, Saho Goto, Miki Ito, Maki Nakamura, Hatsumi Aki, Nobuhiro Kashige, Fumio Miake, and Kunihiro Sumoto*



Hydantoin Twin-Drug Symmetrical Bivalent Molecule Structure-Activity Relationship Antibacterial Activity

1121 Synthesis and Antileukemic Activity of New Fluorinated 5-Aza-9-deazapurines

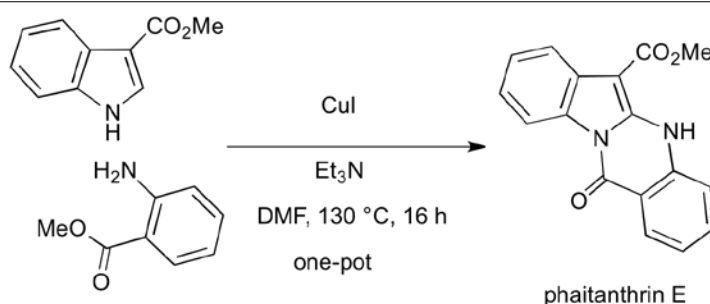
Felicia Phei Lin Lim, Koon Kee Kow, Eng Hwa Yeo, Sek Chuen Chow, and Anton V. Dolzhenko*



Triazine Pyrazole Aminolysis Trichloromethyl Group Anticancer Activity

1132 A One-Pot Synthesis of Phaitanthrin E Through Intermolecular Condensation/Intramolecular Aryl C-H Amination Cascade

Tomoki Itoh, Takumi Abe, Tominari Choshi, Takashi Nishiyama, and Minoru Ishikura*



Indoloquinazoline Phaitanthrin E Condensation/Aryl CH Amination Cascade One-Pot Synthesis

■ TOTAL SYNTHESIS OF HETEROCYCLIC NATURAL PRODUCTS

- 1137 Polyketides
 - 1138 Aromatics
 - 1140 Terpenes
 - 1142 Alkaloids
 - 1152 Miscellaneous
-

■ BRUSH UP YOUR HETEROCYCLES

- 1155 Brush Up Your Heterocycles
-

**Contributors
To This Issue**

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1111 Ito, Miki
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1111 Nakamura, Maki
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1075 Ramadan, Muhammed Ali
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1095 Yang, Ye-Kun
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1031 Zhang, Houfu
1095 Zhang, Wei
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