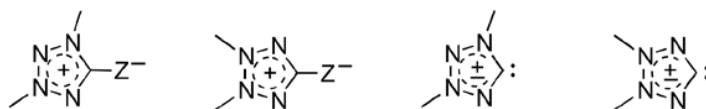


■ REVIEW

185 Mesoionic Tetrazoles – Progress Since 1980

Dietrich Moderhack*



Tetrazolium-5-(thio)olate

Tetrazolium-5-aminide

Tetrazolium-5-methanide

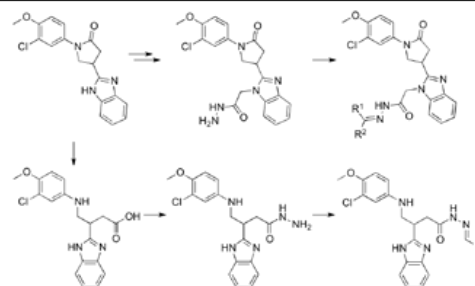
N-Heterocyclic Carbene(NHC)

Tetrazolylidene

■ PAPERS

 235 Synthesis of Novel Benzimidazoles 2-Functionalized with Pyrrolidinone and γ -Amino Acid with a High Antibacterial Activity

Vestina Strelciunaite,* Kazimieras Anusevicius, Ingrida Tumosiene, Jurate Siugzdaite, Ilona Jonuskiene, Irena Ramanauskaite, and Vytautas Mickevicius



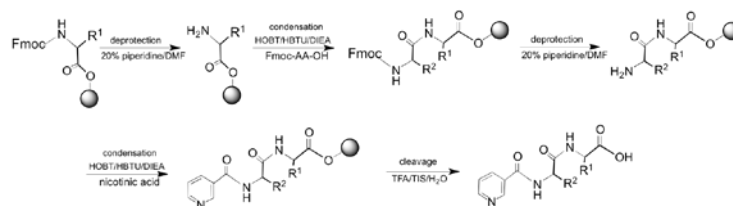
Amino Acid

Hydrazone

Nitrogen Heterocycles

Bactericidal Effect

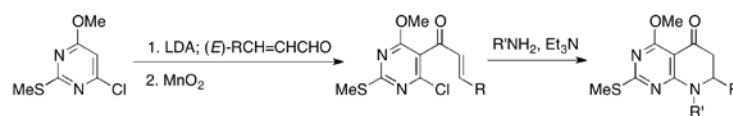
R = furan-2-yl; thiophen-2-yl; 4-ClC₆H₄; 2-Cl-5-NO₂C₆H₃; R¹ = Me; H;
 R² = Me; 4-BrC₆H₄; 4-ClC₆H₄; 2-Cl-5-NO₂C₆H₃; pyridin-3-yl; furan-2-yl; 5-nitrofuran-2-yl; siohen-2-yl;
 5-nitrothiophen-2-yl; 5-bromothiophen-2-yl

 252 Preparation of Nicotinoyl Amino Acid Derivatives by Fmoc-Solid Phase Synthesis and Preliminary Studies on the DNA-Binding Properties of Nicotinoyl Derivatives
 Dongxin Zhao* and Kui Lu*


Nicotinoyl Derivative

260 Synthesis of 6,7-Dihydropyrido[2,3-d]pyrimidin-5(8H)-one Derivatives Based on the Reaction of 1-(4-Chloropyrimidin-5-yl)alk-2-en-1-one Derivatives with Primary Amines

Kazuhiro Kobayashi,* Ryoga Ono, Kouki Ishitobi, Yuuki Chikazawa, Hidetaka Hiyoshi, and Kazuto Umezu



R = alkyl, aryl; R' = alkyl, Ph, PhNH, CH₂CN, CH₂CO₂Et, (CH₂)₃Br

Pyrido[2,3-d]pyrimidin-5(8H)-one

4-Chloro-5-lithio-6-methoxy-2-(methylsulfanyl)pyrimidine

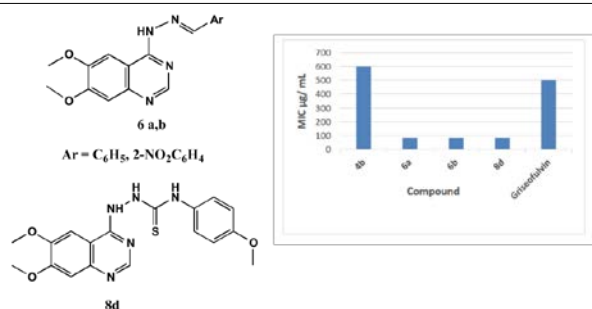
Lithiation

Conjugate Addition

DCSMP

272 Design, Synthesis, Antitumor and Antimicrobial Activity of Novel 6,7-Dimethoxyquinazoline Derivatives

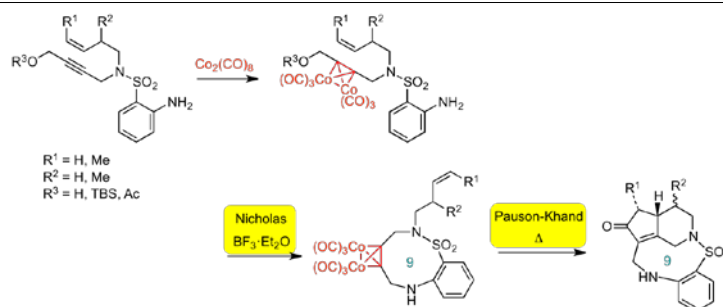
Asmaa E. Kassab,* Ehab M. Gedawy, Zienab Mahmoud, and Rania A. Khattab



6,7-Dimethoxyquinazoline Synthesis Antitumor Activity Antimicrobial Activity

291 Experimental Investigation of Tetracyclic Compounds Containing a Nine-Membered Sultam via Cobalt Alkyne Complexes

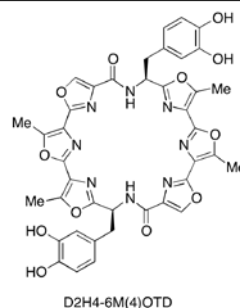
Kyosuke Kaneda,* Misuzu Fujita, and Risa Naruse



Nine-Membered Sultam Cobalt Alkyne Complex Nicholas Reaction Pauson-Khand Reaction

305 Design, Synthesis and Evaluation of an L-Dopa-Derived Macrocyclic Hexaoxazole (6OTD) as a G-Quadruplex-Selective Ligand

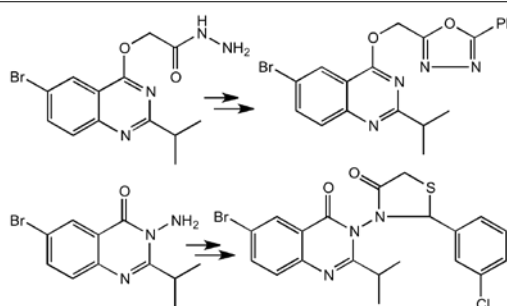
Takahiro Nakamura, Yue Ma, Keisuke Iida, Terumi Ohtake, Hiroyuki Seimiya, and Kazuo Nagasawa*



G-Quadruplex Telomestatin Hexaoxazole Macrocyclic Compound Anti-Cancer Agent

316 Design, Synthesis and Anticancer Activity of Novel 2,3- and 2,4-Disubstituted Quinazoline and Quinazolinone Derivatives

Maier El-hashash, Jehan Morsy, Mohamed Azab,* and Naglaa Mahmoud

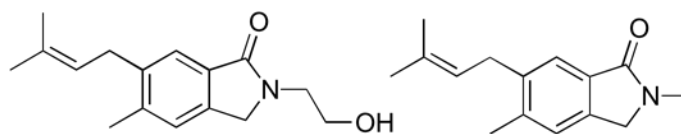


Adenosine Triphosphate Quinazoline Quinazolinone Anticancer Activity

■ SHORT PAPERS

331 Two New Isoindolin-1-ones from the Leaves of *Nicotiana tabacum* and Their Anti-Tobacco Mosaic Virus Activities

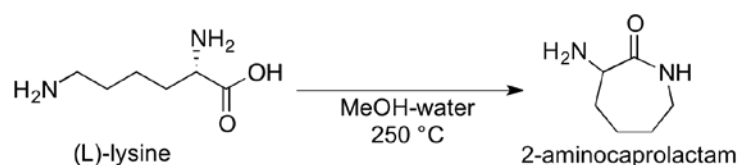
Guang-Hui Kong, Yu-Ping Wu, Wei Li, Zhen-Yuan Xia, Qiang Liu, Kun-Miao Wang, Pei He, Rui-Zhi Zhu, Xiao-Xi Si, and Guang-Yu Yang*



Isoindolin-1-one *Nicotiana tabacum* Anti-Tobacco Mosaic Virus Activity

337 An Efficient Conversion of Lysine to 2-Aminocaprolactam

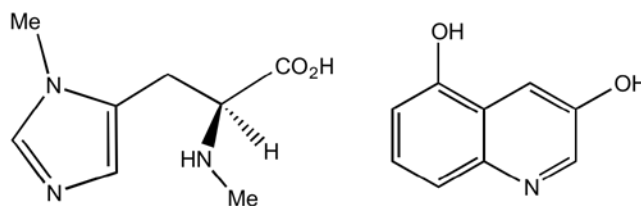
Hiroshi Matsumoto, Kouji Kaiso, and Akio Kamimura*



2-Aminocaprolactam Lysine Racemization Tautomerism

346 Cytotoxic Compounds from *Scolopendra subspinipes mutilans*

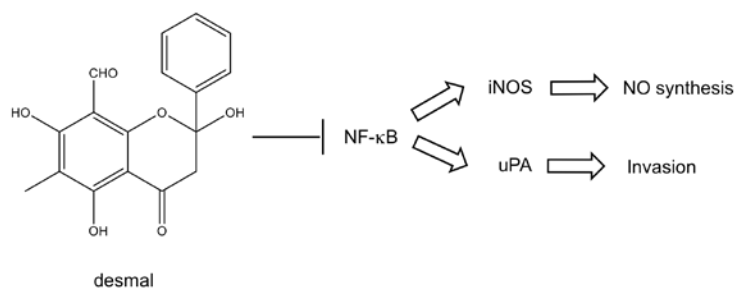
Yu-Ming Liu,* Jian-Bing Nie, Lin-Na Sun, and Qing-Hua Liu



Scolopendra subspinipes mutilans Cytotoxicity Amino Acid Quinoline Alkaloid

353 Inhibition of NF- κ B and Cellular Invasion by Novel Flavonoid Dismal in Ovarian Carcinoma Cells

Liyan Wang, Yinzhi Lin, Kulrawee Sidthipong, Jianqiang Tang, Mengjie Li, Takashi Koyano, Thaworn Kowithayakorn, Kengo Sumiyoshi, Tamami Ukaji, and Kazuo Umezawa*



Dismal Flavone NF- κ B Invasion

■ TOTAL SYNTHESIS OF HETEROCYCLIC NATURAL PRODUCTS

- 361 Polyketides
 - 363 Aromatics
 - 365 Terpenes
 - 369 Steroids
 - 370 Alkaloids
 - 383 Miscellaneous
-

■ BRUSH UP YOUR HETEROCYCLES

- 385 Brush Up Your Heterocycles
-

Contributors To This Issue

235	Anusevicius, Kazimieras	353	Wang, Liyan
316	Azab, Mohamed	331	Wu, Yu-Ping
260	Chikazawa, Yuuki	331	Xia, Zhen-Yuan
316	El-hashash, Maher	331	Yang, Guang-Yu
291	Fujita, Misuzu	252	Zhao, Dongxin
272	Gedawy, Ehab M.	331	Zhu, Rui-Zhi
331	He, Pei		
260	Hiyoshi, Hidetaka		
305	Iida, Keisuke		
260	Ishitobi, Kouki		
235	Jonuskiene, Ilona		
337	Kaiso, Kouji		
337	Kamimura, Akio		
291	Kaneda, Kyosuke		
272	Kassab, Asmaa E.		
272	Khatab, Rania A.		
260	Kobayashi, Kazuhiro		
331	Kong, Guang-Hui		
353	Kowithayakorn, Thaworn		
353	Koyano, Takashi		
353	Li, Mengjie		
331	Li, Wei		
353	Lin, Yinzhi		
331	Liu, Qiang		
346	Liu, Qing-Hua		
346	Liu, Yu-Ming		
252	Lu, Kui		
305	Ma, Yue		
272	Mahmoud, Zienab		
316	Mahmoud, Naglaa		
337	Matsumoto, Hiroshi		
235	Mickevicius, Vytautas		
185	Moderhack, Dietrich		
316	Morsy, Jehan		
305	Nagasawa, Kazuo		
305	Nakamura, Takahiro		
291	Naruse, Risa		
346	Nie, Jian-Bing		
305	Ohtake, Terumi		
260	Ono, Ryoga		
235	Ramanauskaite, Irena		
305	Seimiya, Hiroyuki		
331	Si, Xiao-Xi		
353	Sidthipong, Kulrawee		
235	Siugzdaite, Jurate		
235	Strelciunaite, Vestina		
353	Sumiyoshi, Kengo		
346	Sun, Lin-Na		
353	Tang, Jianqiang		
235	Tumosiene, Ingrida		
353	Ukaji, Tamami		
353	Umezawa, Kazuo		
260	Umezu, Kazuto		
331	Wang, Kun-Miao		