CHEMICAL & PHARMACEUTICAL BULLETIN

Vol. 53, No. 2 February 2005 © Copyright, 2005, by the Pharmaceutical Society of Japan.

Regular Articles

Epoxidation with an Electrocatalytic P-450 Model System in an Acidic Solution
T. Michida, C. Saiki, C. Yamasaki, and Y. Yamaoka 151

Synthesis and Antitumor Activity of Novel Pyrimidinyl Pyrazole Derivatives. III. Synthesis and Antitumor Activity of 3-Phenylpiperazinyl-1-*trans*-propenes
H. Naito, S. Ohsuki, R. Atsumi, M. Minami, M. Mochizuki, K. Hirotani, E. Kumazawa, and A. Ejima 153

Neoclerodane Diterpenoids from *Ajuga taiwanensis*
Y.-Y. Chan 164

New Sphingolipids and a Sterol from a *Lobophytum* Species of the Indian Ocean
P. Muralidhar, M. M. Kumar, N. Krishna, C. B. Rao, and D. V. Rao 168

Quantitative Determination Method for Trace Amount of Penicillin Contaminants in Commercially Available Drug Product by HPLC Coupled with Tandem Mass Spectrometry
W. Takada, T. Adachi, N. Kihara, S. Kitamura, T. Kitagawa, M. Mifune, and Y. Saito 172

A Dammarane Glycoside Derived from Ginsenoside Rb_3
K. He, Y. Liu, Y. Yang, P. Li, and L. Yang 177

Water Vapor Adsorption Behavior of Sodium Deoxycholate Anhydrous Forms
M. Ono, H. Anzai, Y. Tozuka, K. Moribe, T. Oguchi, and K. Yamamoto 180

Discovery of a Novel and Potent Human and Rat β_3-Adrenergic Receptor Agonist, [3-[(2*R*)-[[(2*R*)-(3-Chlorophenyl)-2-hydroxyethyl]amino]propyl]-1*H*-indol-7-yloxy]acetic Acid
H. Harada, Y. Hirokawa, K. Suzuki, Y. Hiyama, M. Oue, H. Kawashima, H. Kato, N. Yoshida, Y. Furutani, and S. Kato 184

Reactions of 1-Naphthols with π-Acceptor *p*-Benzoquinones: Oxidative Aryl Coupling *vs.* Non-Oxidative Electrophilic Arylation
T. Takeya, H. Kondo, T. Otsuka, H. Doi, I. Okamoto, and E. Kotani 199

The New Method for Introduction of an Allyl Group into the Angular Position of 2-(TBS-oxymethyl)-2,3,4,6,7,8-hexahydro-1-benzopyran-5-one and Its Application to Chiral Wieland–Miescher Type Compound Synthesis
K. Hiroya, T. Takahashi, K. Shimomae, and T. Sakamoto 207

New Cassane-Type Diterpenes of *Caesalpinia crista* from Myanmar
S. K. Kalauni, S. Awale, Y. Tezuka, A. H. Banskota, T. Z. Linn, and S. Kadota 214

Resveratrol Derivatives from *Upuna borneensis*
T. Ito, M. Furusawa, T. Tanaka, Z. Ali, I. Iliya, K. Nakaya, J. Murata, D. Darnaedi, and M. Iinuma 219

New Phenolic Glycosides from the Seeds of *Cucurbita moschata*
K. Koike, W. Li, L. Liu, E. Hata, and T. Nikaido 225

Notes

A New and Known Cytotoxic Aryltetralin-Type Lignans from Stems of *Bursera graveolens*
T. Nakanishi, Y. Inatomi, H. Murata, K. Shigeta, N. Iida, A. Inada, J. Murata, M. A. P. Farrera, M. Iinuma, T. Tanaka, S. Tajima, and N. Oku 229

ent-Pimarane-Type Diterpenoids from *Siegesbeckia orientalis* L.
P. M. Giang, P. T. Son, and H. Otsuka 232

Lignan and Neolignan Derivatives from *Magnolia denudata*
J. Li, M. Tanaka, K. Kurasawa, T. Ikeda, and T. Nohara 235

Eudesmane Sesquiterpenes from the Aquatic Fungus *Beltrania rhombica*
V. Rukachaisirikul, C. Kaewbumrung, S. Phongpaichit, and Z. Hajiwangoh 238

Acaricidal Daphnane Diterpenoids from *Trigonostemon reidioides* (Kurz) Craib roots
N. Soonthornchareonnon, M. Sakayarojkul, M. Isaka, V. Mahakittikun, W. Chuakul, and P. Wongsinkongman 241

Bioactive Pyranoxanthones from the Roots of *Calophyllum blancoi*
Y.-C. Shen, L.-T. Wang, A. T. Khalil, L. C. Chiang, and P.-W. Cheng 244

Selective Allylic Hydroxylation of Octahydronaphthalene Derivatives with a Bridgehead Double Bond Using Electrochemical Method with Iron Picolinate Complexes
I. Okamoto, W. Funaki, S. Nobuchika, M. Sawamura, E. Kotani, and T. Takeya 248

Prediction of Solubility of Drugs by Conductor-Like Screening Model for Real Solvents
H. Ikeda, K. Chiba, A. Kanou, and N. Hirayama 253

Communications to the Editor

Penicillium sclerotiorum Catalyzes the Conversion of Herbertenediol into Its Dimers: Mastigophorenes A and B
L. Harinantenaina, Y. Noma, and Y. Asakawa 256

Stereoselective Synthesis of Tetrahydronaphthocyclobuta[1,2-*d*]pyrimidinediones from 5-Fluoro-1,3-dimethyluracil and Naphthalenes
K. Ohkura, T. Ishihara, K. Nishijima, J. M. Diakur, and K. Seki 258

New Vesicle Formation upon Oleate Addition to Preformed Vesicles
S. Chungcharoenwattana and M. Ueno 260

About the cover: The stereoselective introduction of an allyl group into the angular position of 2-(TBS-oxymethyl)-2,3,4,6,7,8-hexahydro-1-benzopyran-5-one was accomplished using Birch reduction and an enolate trapping reaction. It was determined that the allyl group was introduced from α-face *via* an unexpected conformation-flipped from the initially formed enolate. Two diastereomeric Wieland-Miescher type compounds, having the allyl group at the angular position, were synthesized as optically pure forms. See the article by Hiroya *et al*. on page 207 of this issue.

Author Index

Adachi, Toshikazu 172
Ali, Zulfiqar 219
Anzai, Hiroyuki 180
Asakawa, Yoshinori 256
Atsumi, Ryo 153
Awale, Suresh 214

Banskota, Arjun Hari 214

Chan, Yu-Yi 164
Cheng, Pei-Wen 244
Chiang, Lien Chai 244
Chiba, Kouji 253
Chuakul, Wongsatit 241
Chungcharoenwattana, Suparpun 260

Darnaedi, Dedy 219
Diakur, James Michael 258
Doi, Hirohisa 199

Ejima, Akio 153

Farrera, Miguel Angel Perez 229
Funaki, Wataru 248
Furusawa, Miyuki 219
Furutani, Yasuji 184

Giang, Phan Minh 232

Hajiwangoh, Zubaidah 238
Harada, Hiroshi 184
Harinantenaina, Liva 256
Hata, Emiko 225
He, Kejiang 177
Hirayama, Noriaki 253
Hirokawa, Yoshimi 184
Hirotani, Kenji 153
Hiroya, Kou 207
Hiyama, Yoichi 184

Iida, Naoki 229
Iinuma, Munekazu 219, 229
Ikeda, Hirotaka 253
Ikeda, Tsuyoshi 235
Iliya, Ibrahim 219
Inada, Akira 229
Inatomi, Yuka 229
Isaka, Masahiko 241
Ishihara, Tetsuya 258
Ito, Tetsuro 219

Kadota, Shigetoshi 214
Kaewbumrung, Chutanat 238
Kalauni, Surya Kant 214
Kanou, Atsushi 253
Kato, Hiroshi 184
Kato, Shiro 184
Kawashima, Hitoshi 184
Khalil, Ashraf Taha 244
Kihara, Noriaki 172
Kitagawa, Teruyuki 172
Kitamura, Satoshi 172
Koike, Kazuo 225
Kondo, Hiromu 199
Kotani, Eiichi 199, 248
Krishna, Nallamothu 168
Kumar, Muthyala Muralikrishna 168
Kumazawa, Eiji 153
Kurasawa, Katsuki 235

Li, Jun 235
Li, Peng 177
Li, Wei 225
Linn, Thein Zaw 214
Liu, Lijuan 225
Liu, Yong 177

Mahakittikun, Vanna 241
Michida, Takashi 151
Mifune, Masaki 172
Minami, Megumi 153
Mochizuki, Mineko 153
Moribe, Kunikazu 180
Muralidhar, Pendyala 168
Murata, Hiroko 229
Murata, Jin 219, 229

Naito, Hiroyuki 153
Nakanishi, Tsutomu 229
Nakaya, Ken-ichi 219
Nikaido, Tamotsu 225
Nishijima, Ken-ichi 258
Nobuchika, Sachiyo 248
Nohara, Toshihiro 235
Noma, Yoshiaki 256

Oguchi, Toshio 180
Ohkura, Kazue 258
Ohsuki, Satoru 153
Okamoto, Iwao 199, 248
Oku, Naoto 229
Ono, Makoto 180
Otsuka, Hideaki 232
Otsuka, Tsuyoshi 199
Oue, Mayumi 184

Phongpaichit, Souwalak 238

Rao, Chaganty Bheemasankara 168
Rao, Desaraju Venkata 168
Rukachaisirikul, Vatcharin 238
Saiki, Chika 151
Saito, Yutaka 172
Sakamoto, Takao 207
Sakayarojkul, Monnun 241
Sawamura, Mika 248
Seki, Koh-ichi 258
Shen, Ya-Ching 244
Shigeta, Kaori 229
Shimomae, Katsunori 207
Son, Phan Tong 232
Soonthornchareonnon, Noppamas 241
Suzuki, Kenji 184

Tajima, Shogo 229
Takada, Wataru 172
Takahashi, Taisuke 207
Takeya, Tetsuya 199, 248
Tanaka, Makoto 235
Tanaka, Toshiyuki 219, 229
Tezuka, Yasuhiro 214
Tozuka, Yuichi 180

Ueno, Masaharu 260

Wang, Li-Tang 244
Wongsinkongman, Prapai 241

Yamamoto, Keiji 180
Yamaoka, Yumiko 151
Yamasaki, Chie 151
Yang, Ling 177
Yang, Yi 177
Yoshida, Naoyuki 184