

FLU  
S98/a

# SYNLETT

*Accounts and Rapid Communications in Synthetic Organic Chemistry*

Cluster

**Frustrated Lewis Pairs**

*Editors: Benjamin List, Manuel Alcarazo*

Accounts

*K. Morihiro, T. Kodama, S. Obika  
Development of External Stimuli-  
Responsive Nucleic Acids by Sugar,  
Backbone, and Nucleobase Modification*

*R. Krishnamurthy  
RNA as an Emergent Entity:  
An Understanding Gained Through  
Studying its Nonfunctional Alternatives*

**2014 • Vol. 25, 1487–1632**

July 1, 2014

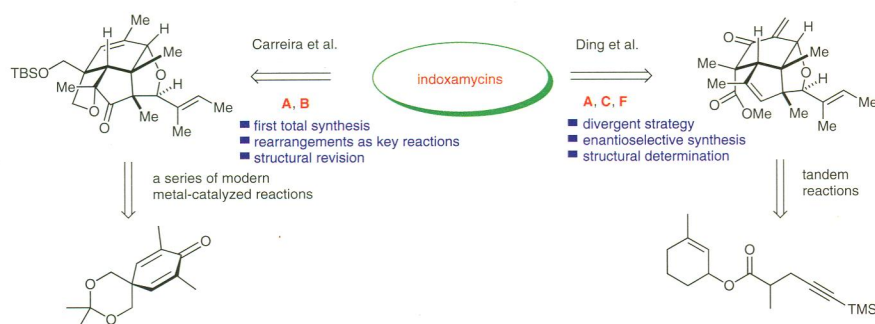


Thieme



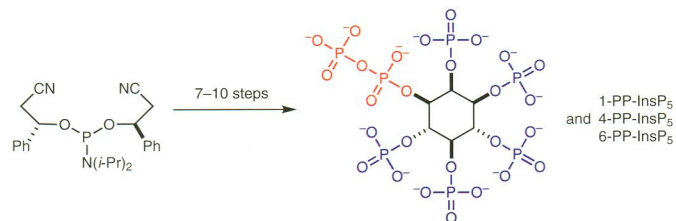
1487 C. He  
C. Zhu  
H. Ding\*

## Synthetic Strategies toward the Indoxamycin Family



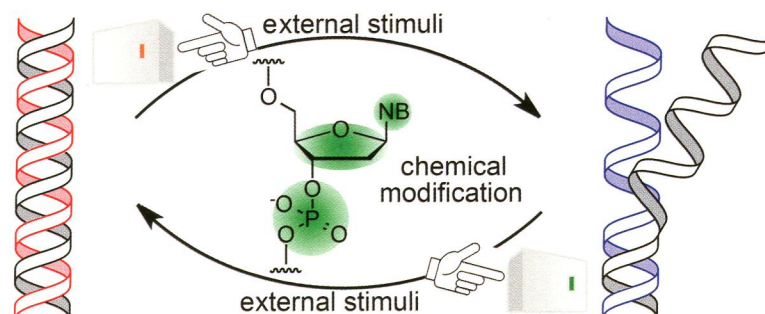
1494 H. J. Jessen\*  
S. Capolicchio  
I. Pavlovic  
D. T. Thakor

## Diphosphoinositol Polyphosphates: Polar Stars in Cell Signaling



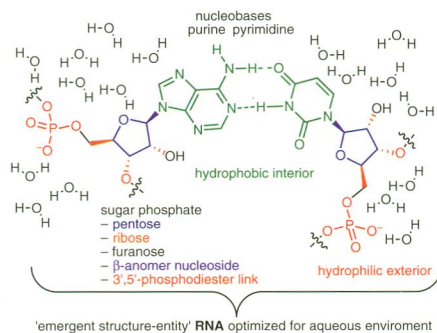
1499 K. Morihira  
T. Kodama  
S. Obika\*

## Development of External Stimuli-Responsive Nucleic Acids by Sugar, Backbone, and Nucleobase Modification



1511 R. Krishnamurthy\*

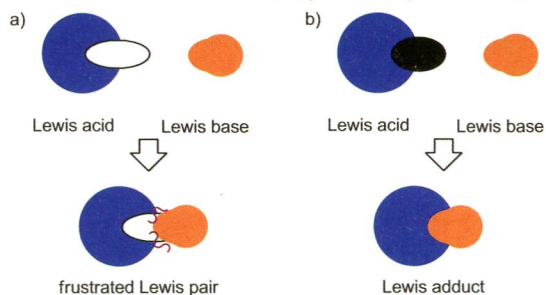
### RNA as an Emergent Entity: An Understanding Gained Through Studying its Nonfunctional Alternatives



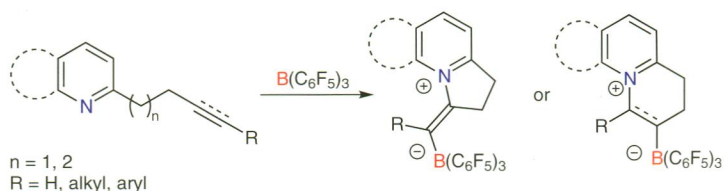
1519 M. Alcarazo\*

### Frustrated Lewis Pairs: An Elegant Concept for Catalysis

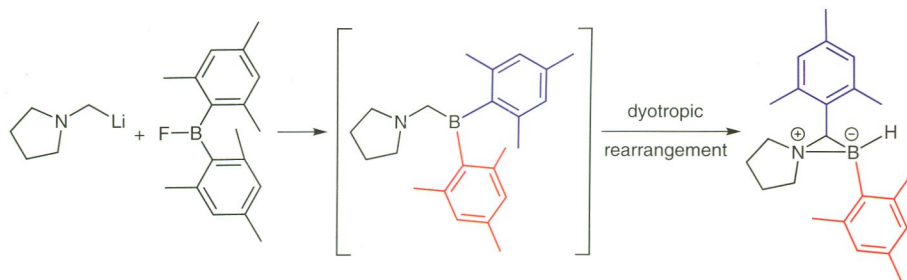
Frustrated Lewis Pairs: An Elegant Concept for Catalysis

1521 P. K. Dornan  
L. E. Longobardi  
D. W. Stephan\*

### Reversible Frustrated Lewis Pair Addition of N-Heterocycles to Unsaturated C–C Bonds

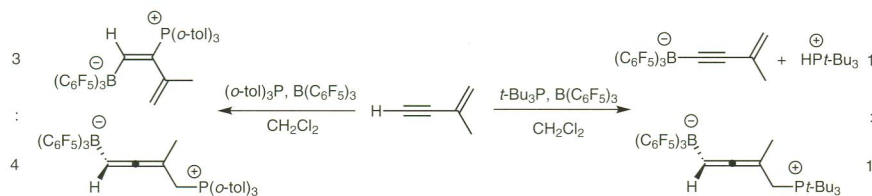
1525 É. Dorkó  
E. Varga  
T. Gáti  
T. Holczbauer  
I. Pápai  
H. Mehdi  
T. Soós\*

### Steric Control of Geminal Lewis Pair Behavior: Frustration Induced Dyotropic Rearrangement



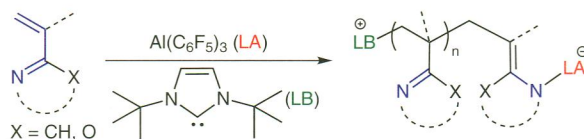
1529 P. Feldhaus  
B. Wibbeling  
R. Fröhlich  
C. G. Daniliuc  
G. Kehr  
G. Erker\*

### Formation of Allenes by 1,4-Addition of Intermolecular Phosphane/Borane Frustrated Lewis Pairs to a Conjugated Enyne



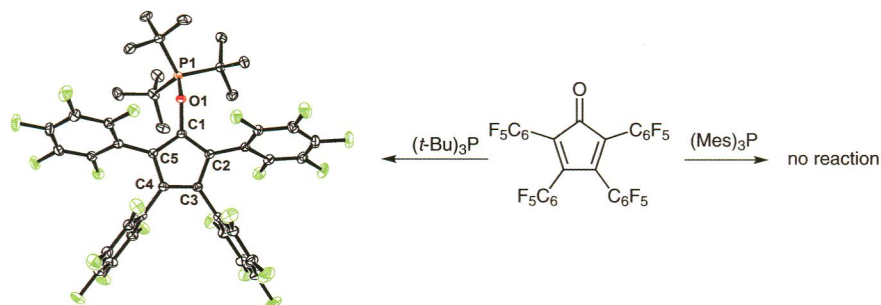
1534 J. He  
Y. Zhang  
E. Y.-X. Chen\*

### Synthesis of Pyridine- and 2-Oxazoline-Functionalized Vinyl Polymers by Alane-Based Frustrated Lewis Pairs



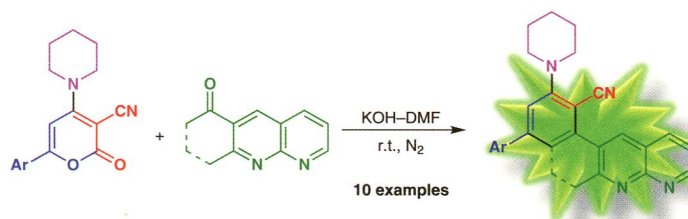
1539 B. Inés  
S. Holle  
D. A. Bock  
M. Alcarazo\*

### Polyfluorinated Cyclopentadienones as Lewis Acids



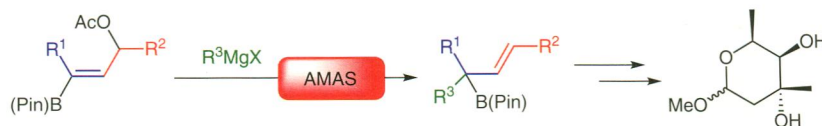
1542 A. Goel\*  
P. Nag  
S. Umar

### New Convenient Synthesis of Fluorescent 1,8-Naphthyridines and the Metal-Sensing Properties of the Dyes



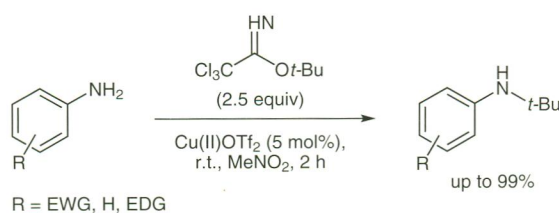
- 1547 B. A. Ondrusek  
D. T. McQuade\*

### Synthesis of Methyl Axenoside and Methyl 3-*epi*-Axenoside via Ate-Mediated Allylic Substitution (AMAS)



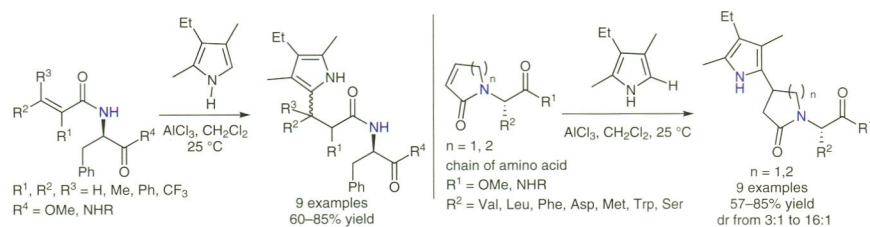
- 1550 J. W. Cran\*  
D. V. Vidhani  
M. E. Krafft

### Copper-Catalyzed *N*-*tert*-Butylation of Aromatic Amines under Mild Conditions Using *tert*-Butyl 2,2,2-Trichloroacetimidate



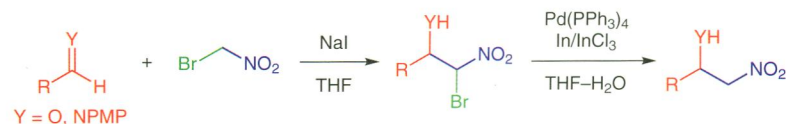
- 1555 A. Gratais  
X. Pannecoucke  
S. Bouzbouz\*

### Studies of the New Reactivity of Chiral Acrylamides and Unprotected Pyrroles: Diastereoselective and Carbonyl Compatible 1,4-Addition



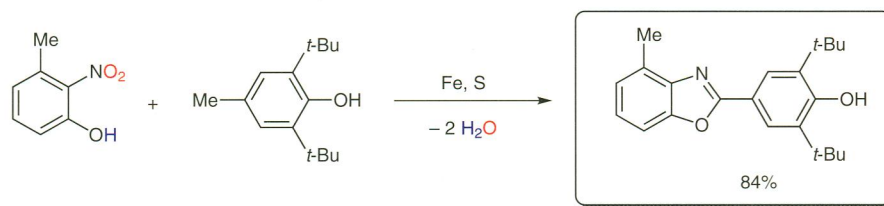
- 1561 R. C. Acúrcio  
R. G. Soengas\*  
A. M. S. Silva\*

### Indium-Mediated Debromination of *gem*-Bromonitroalkanes under Mild Conditions in Aqueous Medium



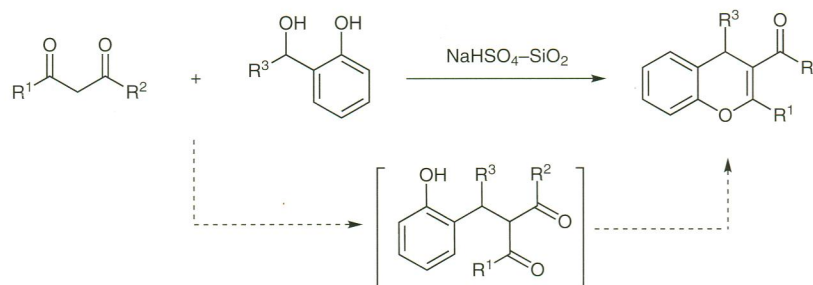
- 1565 M. Saibara\*  
K. Ashida  
K. Satomi  
T. Iwai  
T. Nakai  
M. Mihara  
T. Ito  
T. Mizuno\*

**Redox-Neutral Iron–Sulfur Promoted Transformation of 2-Nitrophenols and 2,6-Disubstituted *p*-Cresols into 2-Arylbenzoxazoles**



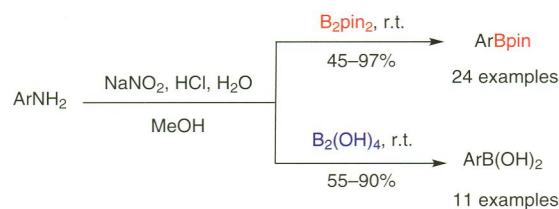
- 1571 T. Aoyama\*  
T. Yamamoto  
S. Miyota  
M. Hayakawa  
T. Takido  
M. Kodomari

**One-Pot Synthesis of 4*H*-Chromenes by Tandem Benzylation and Cyclization in the Presence of Sodium Bisulfate on Silica Gel**



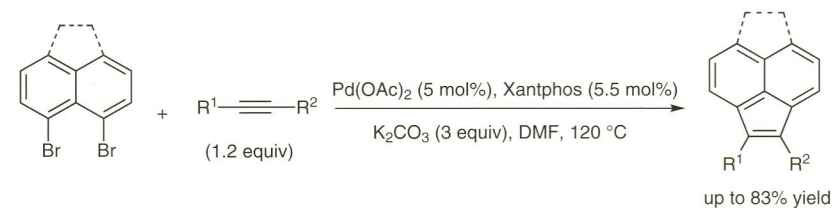
- 1577 C.-J. Zhao  
D. Xue\*  
Z.-H. Jia  
C. Wang  
J. Xiao

**Methanol-Promoted Borylation of Arylamines: A Simple and Green Synthetic Method to Arylboronic Acids and Arylboronates**



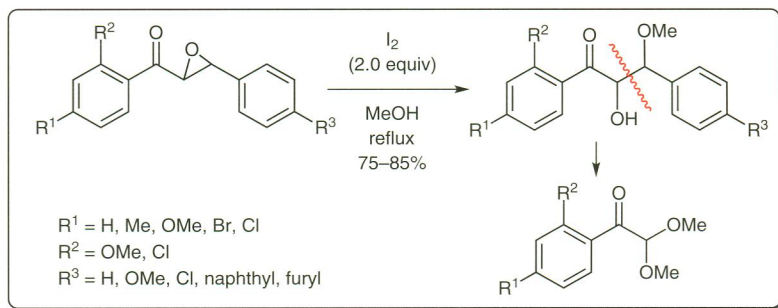
- 1585 W. An  
G. Li\*  
J. Ma  
Y. Tian  
F. Xu\*

**Synthesis of 1,2-Disubstituted Acenaphthylenes by Palladium-Catalyzed Annulation Reactions of Dibromoarenes with Internal Alkynes**

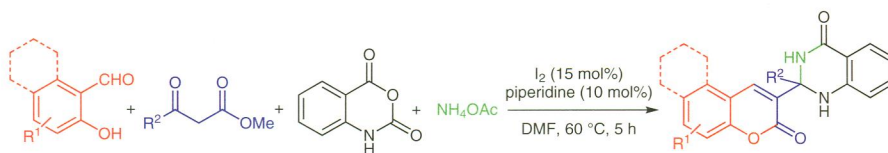




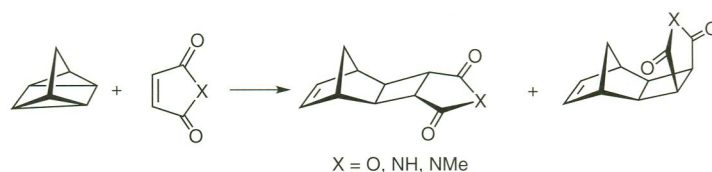
1591

B. G. Jadhav  
S. D. Samant\***Unusual Tandem Oxidative C–C Bond Cleavage and Acetalization of Chalcone Epoxides in the Presence of Iodine in Methanol**

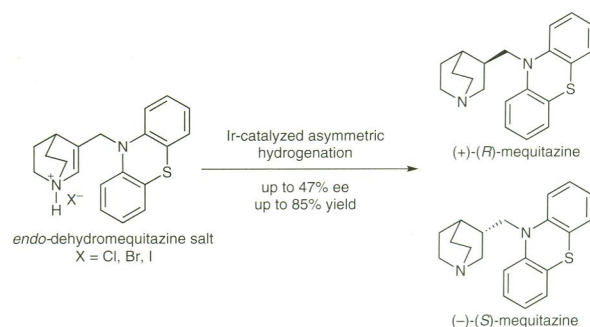
1596

A. Alizadeh\*  
R. Ghanbaripour  
L.-G. Zhu**An Efficient Approach to the Synthesis of Coumarin-Bearing 2,3-Dihydro-4(1H)-Quinazolinone Derivatives Using a Piperidine and Molecular Iodine Dual-Catalyst System**

1601

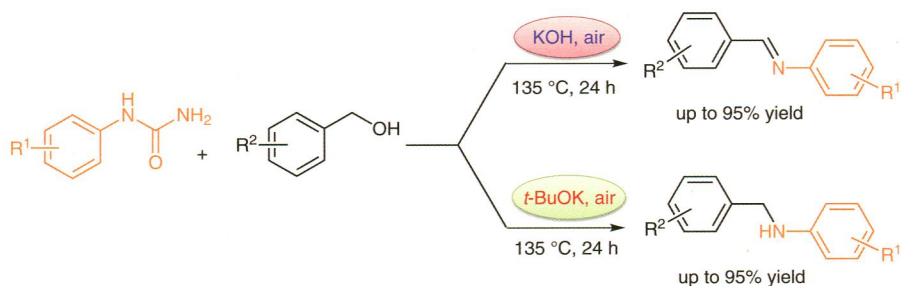
P. S. Kearns  
B. K. Wells  
R. N. Warrener  
D. Margetić\***The Preparation of Stereoisomeric Tricyclo[4.2.1.0<sup>2,5</sup>]nona-7-ene-3,4-dicarboximides and Anhydrides: Literature Corrections and New Products**

1606

S. Gauthier  
L. Larquetoux  
M. Nicolas  
T. Ayad  
P. Maillos\*  
V. Ratovelomanana-Vidal\***Short and Straightforward Enantioselective Synthesis of Both Enantiomers of Mequitazine through Iridium-Catalyzed Asymmetric Hydrogenation of a Nonfunctionalized Cyclic Enamine**

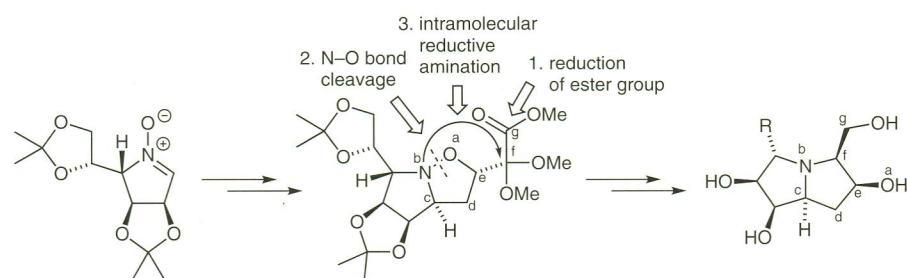
1611 D. K. T. Yadav  
B. M. Bhanage\*

### Base-Mediated Synthesis of Imines and Amines from *N*-Phenylureas and Alcohols



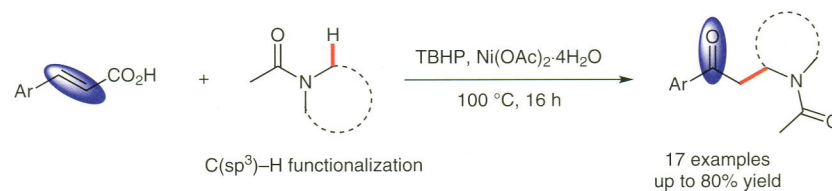
1616 D. Beňadiková  
M. Medvecký  
A. Filipová  
J. Moncol  
M. Gembický  
N. Prónayová  
R. Fischer\*

### New Synthetic Approach to C5-Hydroxymethyl-Substituted Polyhydroxylated Pyrrolizidines



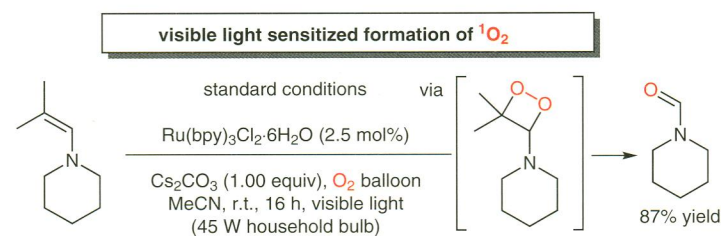
1621 J.-X. Zhang  
Y.-J. Wang  
N.-X. Wang\*  
W. Zhang  
C.-B. Bai  
Y.-H. Li  
J.-L. Wen

### Nickel-Catalyzed $sp^3$ C–H Bond Activation from Decarboxylative Cross-Coupling of $\alpha,\beta$ -Unsaturated Carboxylic Acids with Amides



1626 J. Li  
S. Cai  
J. Chen  
Y. Zhao  
D. Z. Wang\*

### Visible Light Induced Photocatalytic Conversion of Enamines into Amides







## Author Index

- Acúrcio, R. C. 1561  
 Alcarazo, M. 1519, 1539  
 Alizadeh, A. 1596  
 An, W. 1585  
 Aoyama, T. 1571  
 Ashida, K. 1565  
 Ayad, T. 1606  
  
 Bai, C.-B. 1621  
 Beňadiková, D. 1616  
 Bhanage, B. M. 1611  
 Bock, D. A. 1539  
 Bouzbouz, S. 1555  
  
 Cai, S. 1626  
 Capolicchio, S. 1494  
 Chen, E. Y.-X. 1534  
 Chen, J. 1626  
 Cran, J. W. 1550  
  
 Daniliuc, C. G. 1529  
 Ding, H. 1487  
 Dorkó, É. 1525  
 Dornan, P. K. 1521  
  
 Erker, G. 1529  
  
 Feldhaus, P. 1529  
 Filipová, A. 1616  
 Fischer, R. 1616  
 Fröhlich, R. 1529  
  
 Gáti, T. 1525  
 Gauthier, S. 1606  
 Gembický, M. 1616  
  
 Ghanbaripour, R. 1596  
 Goel, A. 1542  
 Gratais, A. 1555  
  
 Hayakawa, M. 1571  
 He, C. 1487  
 He, J. 1534  
 Holczbauer, T. 1525  
 Holle, S. 1539  
  
 Inés, B. 1539  
 Ito, T. 1565  
 Iwai, T. 1565  
  
 Jadhav, B. G. 1591  
 Jessen, H. J. 1494  
 Jia, Z.-H. 1577  
  
 Kearns, P. S. 1601  
 Kehr, G. 1529  
 Keshari, T. 1631  
 Kodama, T. 1499  
 Kodomari, M. 1571  
 Krafft, M. E. 1550  
 Krishnamurthy, R. 1511  
  
 Larquetoux, L. 1606  
 Li, G. 1585  
 Li, J. 1626  
 Li, Y.-H. 1621  
 Longobardi, L. E. 1521  
  
 Ma, J. 1585  
 Maillos, P. 1606  
 Margetić, D. 1601  
  
 McQuade, D. T. 1547  
 Medvecký, M. 1616  
 Mehdi, H. 1525  
 Mihara, M. 1565  
 Miyota, S. 1571  
 Mizuno, T. 1565  
 Moncol, J. 1616  
 Morihiro, K. 1499  
  
 Nag, P. 1542  
 Nakai, T. 1565  
 Nicolas, M. 1606  
  
 Obika, S. 1499  
 Ondrusek, B. A. 1547  
  
 Pannecoucke, X. 1555  
 Pápai, I. 1525  
 Pavlovic, I. 1494  
 Prónayová, N. 1616  
  
 Ratovelomanana-Vidal,  
 V. 1606  
  
 Saibara, M. 1565  
 Samant, S. D. 1591  
 Satomi, K. 1565  
 Silva, A. M. S. 1561  
 Soengas, R. G. 1561  
 Soós, T. 1525  
 Stephan, D. W. 1521  
  
 Takido, T. 1571  
 Thakor, D. T. 1494  
 Tian, Y. 1585  
  
 Umar, S. 1542  
  
 van Tonder, J. H. 1629  
 Varga, E. 1525  
 Vidhani, D. V. 1550  
  
 Wang, C. 1577  
 Wang, D. Z. 1626  
 Wang, N.-X. 1621  
 Wang, Y.-J. 1621  
 Warrener, R. N. 1601  
 Wells, B. K. 1601  
 Wen, J.-L. 1621  
 Wibbeling, B. 1529  
  
 Xiao, J. 1577  
 Xu, F. 1585  
 Xue, D. 1577  
  
 Yadav, D. K. T. 1611  
 Yamamoto, T. 1571  
  
 Zhang, J.-X. 1621  
 Zhang, W. 1621  
 Zhang, Y. 1534  
 Zhao, C.-J. 1577  
 Zhao, Y. 1626  
 Zhu, C. 1487  
 Zhu, L.-G. 1596