Subject Index

Ab initio calculations

A Comparison of Density-Functional Theory and *Hartree–Fock* Modeling of Organolithium Equilibria, 1976 Ligand Dynamics in the Solid: Lithium-fluorenide and Lithium-benzo[*b*]fluorenide *N*,*N*,*N'*,*N'*-Tetramethylethylenediamine (tmeda) Complexes, 2317

Ab initio MO Theory – An Important Tool in Foldamer Research: Prediction of Helices in Oligomers of ω-Amino Acids, 2348

Abies forrestii

Abieseconordines A and B, Two Novel Norditerpenoids with a 18-Nor-5,10:9,10-disecoabietane Skeleton from *Abies forrestii*, 415

Abieseconordines A and B

Abieseconordines A and B, Two Novel Norditerpenoids with a 18-Nor-5,10:9,10-disecoabietane Skeleton from *Abies forrestii*, 415

Abietane

A New Abietane Diterpenoid from Plectranthus bishopianus BENTH., 643

Acetyl migration

X-Ray Structure Study of an Unusual 13,14,15,16-Tetranorlabdane Derivative Obtained in the Synthesis of (7*a*)-7,8-Dihydroxy-14,15-dinorlabdane-11,13-dione, 825

Acetylcholine mimetics

Synthesis and Characterization of Enantiomerically Pure *cis*- and *trans*-3-Fluoro-2,4-dioxa-7-aza-3-phosphadecalin 3-Oxides as Acetylcholine Mimetics and Inhibitors of Acetylcholinesterase, 716

Acetylcholinesterase

Synthesis and Characterization of Enantiomerically Pure *cis*- and *trans*-3-Fluoro-2,4-dioxa-8-aza-3-phosphadecalin 3-Oxides as γ-Homoacetylcholine Mimetics and Inhibitors of Acetylcholinesterase, 17

Synthesis and Characterization of Enantiomerically Pure *cis*- and *trans*-3-Fluoro-2,4-dioxa-7-aza-3-phosphadecalin 3-Oxides as Acetylcholine Mimetics and Inhibitors of Acetylcholinesterase, 716

Acetylenedicarboxylates, dialkyl

Multicomponent Transformation of Isoindoline-1,3-diimine (=1H-Isoindole-1,3(2H)-diimine), Acetylenic Esters, and Triphenylphosphine to Novel Dihydropyrimido[2,1-*a*]isoindole Derivatives, 185

A Straightforward Synthesis of 2-[1-Alkyl-5,6-bis(alkoxycarbonyl)-1,2,3,4-tetrahydro-2-oxopyridin-3-yl]acetic Acid Derivatives *via* Domino *Michael* Addition–Cyclization Reaction, 858

β-N-Acetylglucosaminidation

A Practical One-Step Synthesis of 1,2-Oxazoline Derivatives from Unprotected Sugars and Its Application to Chemoenzymatic β-N-Acetylglucosaminidation of Disialo-oligosaccharide, 1928

Acnistus arborescens

Further Withaphysalin Derivatives from Acnistus arborescens, 1387

Aconitorientaline

A New Diterpenoid Alkaloid from the Roots of a White-Flowering Aconitum orientale Sample, 314

Aconitramines A-C

Three New C₁₉-Diterpenoid Alkaloids from Aconitum transsectum, 509

Aconitum orientale

A New Diterpenoid Alkaloid from the Roots of a White-Flowering Aconitum orientale Sample, 314 Aconitum transsectum

Three New C₁₉-Diterpenoid Alkaloids from Aconitum transsectum, 509

Acoranes

Two New Sesquiterpenes from the Marine Fungus Eutypella scoparia FS26 from the South China Sea, 157

Acremonium species.

Cyclohexadepsipeptides from the Filamentous Fungus Acremonium sp. BCC 2629, 963

Acrylate, ethyl

Unexpected Course of the Reaction of 2-Unsubstituted 1H-Imidazole 3-Oxides with Ethyl Acrylate, 577 Actinosynnema pretiosum

Two New N-(O-Carbamoylglucopyranosyl)-N-dimethylansamitocins from Actinosynnema pretiosum, 1630

Acyl chlorides

Synthesis of Functionalized Pyrazines and Quinoxalines from Nef-Isocyanide Adducts and 1,2-Diamines, 169 Acvlation

Preparation of Pseudo-Peptide Building Blocks with retro-Thioamide Bond Mediated via Thiocarbamoyl Meldrum's Acid. 461

Enantioselective Solid-Phase Peptide Synthesis Using Traceless Chiral Coupling Reagents and Racemic Amino Acids, 2084

Addition reactions

 C_1 -Symmetric Bicyclo[2.2.2]octa-2,5-diene (bod*) Ligands in Rhodium-Catalyzed Asymmetric 1,4-Addition of Arylboronic Acids to Enones and 1,2-Addition to N-[(4-Nitrophenyl)sulfonyl]imines, 1809

B-Adrenoceptor antagonist

'Click Synthesis' of Some Novel O-Substituted Oximes Containing 1,2,3-Triazole-1,4-diyl Residues as New Analogs of β -Adrenoceptor Antagonists, 491

Aerobic oxidation

Trinuclear Non-Heme Iron Complexes Based on 4-Substituted 2,6-Diacylpyridine Ligands as Catalysts in Aerobic Allylic Oxidations, 197

Metal-Free 2,2,6,6-Tetramethylpiperidin-1-yloxy Radical (TEMPO) Catalyzed Aerobic Oxidation of Hydroxylamines and Alkoxyamines to Oximes and Oxime Ethers, 1758

Afrocyclamins A and B

Two New Triterpene Saponins from Cyclamen africanum BOISS. & REUTER, 1573

Agarwood

Sesquiterpenoids and 2-(2-Phenylethyl)-4H-chromen-4-one (=2-(2-Phenylethyl)-4H-1-benzopyran-4-one) Derivatives from Aquilaria malaccensis Agarwood, 636

Eight New 2-(2-Phenylethyl)chromone (=2-(2-Phenylethyl)-4H-1-benzopyran-4-one) Derivatives from Aquilaria malaccensis Agarwood, 1657

β-Alanines

Microwave-Assisted Synthesis of β -Lactams and Cyclo- β -dipeptides, 2218

Aldehydes, α -substituted α , β -unsaturated

Secondary Amine-Catalyzed Asymmetric γ-Alkylation of α-Branched Enals via Dienamine Activation, 1985 Aldol reaction

Cross-Linked-Polymer-Supported N-{2'-[(Arylsulfonyl)amino][1,1'-binaphthalen]-2-yl}prolinamide as Organocatalyst for the Direct Aldol Intermolecular Reaction under Solvent-Free Conditions, 1831

Alhagi camelorum

Antifungal Ursene-Type Triterpene from the Roots of Alhagi camelorum, 1556

Aliskiren

A Total Synthesis of Aliskiren, 1937

Alkaloids

A New Diterpenoid Alkaloid from the Roots of a White-Flowering Aconitum orientale Sample, 314 Three New C19-Diterpenoid Alkaloids from Aconitum transsectum, 509

Five New β -Carboline-Type Alkaloids from Stellaria dichotoma var. lanceolata, 1018

A New Alkaloid from the Seeds of Sophora alopecuroides L., 1108

Three New Pregnane Alkaloids from Veratrum taliense, 1114

Sinoraculine, the Precursor of the Novel Alkaloid Sinoracutine from Stephania cepharantha HAYATA, 1198 Diketopiperazine Alkaloids Produced by the Endophytic Fungus Aspergillus fumigatus from the Stem of Erythrophloeum fordii OLIV., 1401

Alkaloids from the Stems of Glycosmis pentaphylla, 1449

Formal Synthesis of (-)-Cephalotaxine, 2502

Alkenamides

Mechanistic Investigation of the Ring Opening in the Staudinger Cycloaddition Involving Ketenes with Electron-Withdrawing Substituents, 1079

Alkene rearrangement

Stereoselective Total Synthesis of Stagonolide C, 227

Alkenes

Some Aspects of the Chemistry of Nitro Compounds, 1730

Chiral Proline-Based P,O and P,N Ligands for Iridium-Catalyzed Asymmetric Hydrogenation, 2176

Alkylation

A New Alkylation Method for Heptalene-4,5-dicarboxylates and of One of Their Pseudoester Forms, 885 Secondary Amine-Catalyzed Asymmetric γ-Alkylation of α-Branched Enals via Dienamine Activation, 1985 Alkylations of Chiral Nickel(II) Complexes of Glycine under Phase-Transfer Conditions, 2672

Alkynes

Some Aspects of the Chemistry of Nitro Compounds, 1730

Allylation

Lewis Acid-Mediated Addition of Amino Acid-Substituted a-Allylsilanes to Aromatic Acetals, 2660 Allylic alcohols

Some Aspects of the Chemistry of Nitro Compounds, 1730

Alopecurin A

A New Alkaloid from the Seeds of Sophora alopecuroides L., 1108

Amides

Preparation of Pseudo-Peptide Building Blocks with retro-Thioamide Bond Mediated via Thiocarbamoyl Meldrum's Acid, 461

Designing and Synthesis of Novel Amidated Fentanyl Analogs, 818

Studies on Alkyl-Nitrogen Bond Formation via Reductive Elimination from Monomeric Palladium Complexes in High Oxidation State, 2007

Amination

Studies on Alkyl-Nitrogen Bond Formation via Reductive Elimination from Monomeric Palladium Complexes in High Oxidation State, 2007

Amines

Nicotinium Dichromate (=3-Carboxypyridinium Dichromate; NDC) as an Efficient Reagent for the Oxidative Deamination of Amines and Aminophosphonates, 613

A Straightforward Synthesis of 2-[1-Alkyl-5,6-bis(alkoxycarbonyl)-1,2,3,4-tetrahydro-2-oxopyridin-3-yl]acetic Acid Derivatives via Domino Michael Addition-Cyclization Reaction, 858

Synthesis and Reactions of 2-[1-Methyl-1-(pyrrolidin-2-yl)ethyl]-1H-pyrrole and Some Derivatives with Aldehydes: Chiral Structures Combining a Secondary-Amine Group with an 1H-Pyrrole Moiety as Excellent H-Bond Donor, 2249

Amino acids

- Helical Structures of Bicyclic a-Amino Acid Homochiral Oligomers with the Stereogenic Centers at the Side-Chain Fused-Ring Junctions, 1694
- Asymmetric Synthesis of β^2 -homo-tert-Leucine via Radical Addition to Enantiopure N-Fumaroylhexahydrobenzooxazolidin-2-one, 1714

Microwave-Assisted Synthesis of β -Lactams and Cyclo- β -dipeptides, 2218

2-Amino-1,2,3,6-tetrahydro-6-oxocyclopenta[c]fluorene-2-carboxylic Acid (FlAib), a Completely Rigidified, Fluoren-9-one-Based a-Amino Acid, 2446

A Study on the Diastereoselective Synthesis of α -Fluorinated β^3 -Amino Acids by α -Fluorination, 2460

The Structural Characterization of Folded Peptides Containing the Conformationally Constrained β -Amino Acid Residue $\beta^{2,2}Ac_6c$, 2589

Lewis Acid-Mediated Addition of Amino Acid-Substituted a-Allylsilanes to Aromatic Acetals, 2660 **B**-Amino esters

Diastereoselective Coupling of N-(tert-Butyl)sulfinyl Imines and Dimethyl Malonate. Synthesis of Enantiomerically Enriched β -Amino Esters and β -Lactams, 1790

Aminophosphonates

Nicotinium Dichromate (=3-Carboxypyridinium Dichromate; NDC) as an Efficient Reagent for the Oxidative Deamination of Amines and Aminophosphonates, 613

Andrographis paniculata

Diastereoisomeric ent-Labdane Diterpenoids from Andrographis paniculata, 120

Anionic polymerization

Chirality Transfer in the Formation of Poly(oxymethylene) Helices by Anionic Polymerization, 845

Ansamitocins

Two New N-(O-Carbamoylglucopyranosyl)-N-dimethylansamitocins from Actinosynnema pretiosum, 1630 Anthogorgia species

Polyhydroxylated Steroids from the South China Sea Gorgonian Anthogorgia sp., 522

Anthogorgsteroids A - D

Polyhydroxylated Steroids from the South China Sea Gorgonian Anthogorgia sp., 522

Anthracenes, tetrahydro-

Cyclization of (2-Alkenylphenyl)carbonyl Compounds to Polycyclic Arenes Catalyzed by Copper(II) Trifluoromethanesulfonate or Trifluoromethanesulfuric Acid, 1953

Anthranilic acids

Ultrasound-Promoted Catalyst-Free Synthesis of 2,2'-(1,4-Phenylene)bis[1-acetyl-1,2-dihydro-4H-3,1-benzoxazin-4-one] Derivatives, 1217

Anti-apoptotic activity

Facile Synthesis, Single-Crystal Structure, and Biological Evaluation of Novel Pyrazolo[5,1-d][1,2,5]triazepin-4-ones, 134

Antibacterial activity

Alkaloid and Anthraquinone Derivatives Produced by the Marine-Derived Endophytic Fungus *Eurotium rubrum*, 163

Four New Cuparene-Type Sesquiterpenes from Flammulina velutipes, 261

Isocyanide-Based Five-Component Synthesis of 2-Aryl-2-(2,3,4,5-tetrahydro-2,4-dioxo-1*H*-1,5-benzodiaze-pin-3-yl)acetamides ($= \alpha$ -Aryl-2,3,4,5-tetrahydro-2,4-dioxo-1*H*-1,5-benzodiazepine-3-acetamides), 483

Synthesis, Characterization, and Biological Evaluation as Antibacterial Agents of Water-Soluble Calix[4]arenes and Phenol Derivatives Incorporating Carboxylate Groups, 1373

Ultrasound-Assisted Synthesis of 3-(Arylamino)-1-ferrocenylpropan-1-ones, 1425

Anticancer agents

Catalytic Enantioselective Synthesis of a 3-Aryl-3-benzyloxindole (=3-Aryl-3-benzyl-1,3-dihydro-2*H*-indol-2-one) Exhibiting Antitumor Activity, 2287

Antifungal activity

Alkaloid and Anthraquinone Derivatives Produced by the Marine-Derived Endophytic Fungus Eurotium rubrum, 163

Antifungal Ursene-Type Triterpene from the Roots of Alhagi camelorum, 1556

Anti-HIV activity

Synthesis and Anti-HIV Activity of Triazolo-Fused 3',5'-Cyclic Nucleoside Analogues Derived from an Intramolecular *Huisgen* 1,3-Dipolar Cycloaddition, 772

Anti-inflammatory activity

Diketopiperazine Alkaloids Produced by the Endophytic Fungus Aspergillus fumigatus from the Stem of Erythrophloeum fordii OLIV., 1401

Antimicrobial activity

Ring-Extended Gramicidin S Analogs Containing cis δ-Sugar Amino Acid Turn Mimetics with Varying Ring Size, 2544

Antimycobacterial activity

Highly Conjugated Ergostane-Type Steroids and Aranotin-Type Diketopiperazines from the Fungus Aspergillus terreus BCC 4651, 308

Antioxidant activity

On-Line Radical Scavenging Detection and Characterization of Antioxidants from *Artemisia herba-alba*, 564 Antiviral activity

Methyl Pothoscandensate, a New ent- $18(4 \rightarrow 3)$ -Abeokaurane from Pothos scandens, 1231

Enantioselective Michael Addition of the 2-(1-Ethylpropoxy)acetaldehyde to N-[(1Z)-2-Nitroethenyl]acetamide – Optimization of the Key Step in the Organocatalytic Oseltamivir Synthesis, 2421

Aquilaria malaccensis

Sesquiterpenoids and 2-(2-Phenylethyl)-4H-chromen-4-one (=2-(2-Phenylethyl)-4H-1-benzopyran-4-one) Derivatives from Aquilaria malaccensis Agarwood, 636

Eight New 2-(2-Phenylethyl)chromone (=2-(2-Phenylethyl)-4H-1-benzopyran-4-one) Derivatives from Aquilaria malaccensis Agarwood, 1657

Aquilaria sinensis

Two New Octahydronaphthalene Derivatives from Trichoderma spirale, an Endophytic Fungus Derived from Aquilaria sinensis, 805

Two New 2-(2-Phenylethyl)chromen-4-ones from Aquilaria sinensis (LOUR.) GILG, 951

Aranotin derivatives

Highly Conjugated Ergostane-Type Steroids and Aranotin-Type Diketopiperazines from the Fungus Aspergillus terreus BCC 4651, 308

Arboranes

A New Triterpene and Phenolic Compounds from the Roots of Pteroxygonum giraldii, 127

Arenes, polycyclic

Cyclization of (2-Alkenylphenyl)carbonyl Compounds to Polycyclic Arenes Catalyzed by Copper(II) Trifluoromethanesulfonate or Trifluoromethanesulfuric Acid, 1953

Artemisia herba-alba

On-Line Radical Scavenging Detection and Characterization of Antioxidants from Artemisia herba-alba, 564 Aryl epoxides

Oxidative Cleavage and Rearrangement of Aryl Epoxides Using Iodosylbenzene: on Criegee's Trail, 2036 Aryl iodides

CuI-Mediated Trifluoromethylations with Stannanes. Preliminary Communication, 2231

Arvlation

C1-Symmetric Bicyclo[2.2.2]octa-2,5-diene (bod*) Ligands in Rhodium-Catalyzed Asymmetric 1,4-Addition of Arylboronic Acids to Enones and 1,2-Addition to N-[(4-Nitrophenyl)sulfonyl]imines, 1809

Asinger reaction

A Manifold Three-Step Synthetic Route to Polycyclic Annulated Hydantoins via Cyclic Imines, 1857 Asparagin

Synthesis of Functionalized Glutamine- and Asparagine-Type Peptoids - Scope and Limitations, 2237 Aspergillus fumigatus

Diketopiperazine Alkaloids Produced by the Endophytic Fungus Aspergillus fumigatus from the Stem of Erythrophloeum fordii OLIV., 1401

Aspergillus terreus

Highly Conjugated Ergostane-Type Steroids and Aranotin-Type Diketopiperazines from the Fungus Aspergillus terreus BCC 4651, 308

Asphodelus tenuifolius

New Secondary Metabolites from Asphodelus tenuifolius, 144

Asphorins A and B

New Secondary Metabolites from Asphodelus tenuifolius, 144

Aster vomena

A New Megastigmane Palmitate and a New Oleanane Triterpenoid from Aster yomena MAKINO, 1455

Asymmetric catalysis

Substrate Range of the Titanium TADDOLate Catalyzed Asymmetric Fluorination of Activated Carbonyl Compounds, 353

Asymmetric esterification

Kinetic Resolution of Racemic Secondary Benzylic Alcohols by the Enantioselective Esterification Using Pyridine-3-carboxylic Anhydride (3-PCA) with Chiral Acyl-Transfer Catalysts, 1891

Asymmetric oxidation

Synthesis and Asymmetric Oxidation of (Caranylsulfanyl)-1H-imidazoles, 940

Asymmetric synthesis

Isosteviol-Proline Conjugates as Highly Efficient Amphiphilic Organocatalysts for Asymmetric Three-Component Mannich Reactions in the Presence of Water, 43

A Novel Asymmetric Synthesis of 3-(1*H*-Pyrrol-1-yl)-Substituted β -Lactams via a Bismuth Nitrate-Catalyzed Reaction, 839

Formal Synthesis of (-)-Cephalotaxine, 2502

Atractyligenin derivatives

Three New ent-Kaurane Diterpenoids from Siegesbeckia pubescens, 221

Azaphosphadecalins

Synthesis and Characterization of Enantiomerically Pure cis- and trans-3-Fluoro-2,4-dioxa-7-aza-3-phosphadecalin 3-Oxides as Acetylcholine Mimetics and Inhibitors of Acetylcholinesterase, 716

Azetidinones

Synthesis of Some New 2-Oxo-N-[(10H-phenothiazin-10-yl)alkyl] Derivatives of Azetidine-1-carboxamides, 514

Microwave-Assisted Synthesis of β -Lactams and Cyclo- β -dipeptides, 2218

Azides

Formal Synthesis of (-)-Cephalotaxine, 2502

Aziridines, 2,2-dichloro-

A Novel Catalyst-Free One-Pot Synthesis of Some New N-(a-Hydroxybenzyl)formamides by Treatment of 2,2-Dichloroaziridines with Dimethyl Sulfoxide and Water under Neutral Conditions, 1102

Aziridinium

Fluorine as a Regiocontrol Element in the Ring Opening of Bicyclic Aziridiniums, 2265

Azirine/oxazolone method

Synthesis of Aib-Pro Oligopeptides by Repeated Azirine Coupling with the Aib-Pro Synthon, 1325 2H-Azirine-3-amines

Synthesis of Aib-Pro Oligopeptides by Repeated Azirine Coupling with the Aib-Pro Synthon, 1325

Beauvericin

Cyclohexadepsipeptides from the Filamentous Fungus Acremonium sp. BCC 2629, 963 β-Bend ribbon structure

Synthesis of Aib-Pro Oligopeptides by Repeated Azirine Coupling with the Aib-Pro Synthon, 1325 Benzaldehyde

A Convenient Synthesis of Functionalized Indenopyrazolones from Indan-1,2,3-trione, Benzaldehydes, and Phenylhydrazine, 1581

Benzene, 1,2-bis[(diarylphosphino)ethynyl]-

Carboboration Reactions of 1,2-Bis[(diarylphosphino)ethynyl]benzenes with Tris(pentafluorophenyl)borane, 2515

Benzo-[1]benzopyrano-quinolizines

1,4-Dipolar Cycloaddition Reactions in Ionic Liquids: A Facile Synthesis of 9aH,15H-[1]Benzopyrano[3',2': 3,4]pyrido[2,1-a]isoquinolines (=9aH,15H-Benzo[a][1]benzopyrano[2,3-h]quinolizines), 76

Benzo[f]chromenes

An Efficient One-Pot Synthesis of Substituted 1H-Naphtho[2,1-b]pyrans and 4H-1-Benzopyrans (=Chromenes) under Solvent-Free Microwave-Irradiation Conditions, 502

1H-1,5-Benzodiazepine-3-acetamide, α-aryl-2,3,4,5-tetrahydro-2,4-dioxo-

Isocyanide-Based Five-Component Synthesis of 2-Aryl-2-(2,3,4,5-tetrahydro-2,4-dioxo-1H-1,5-benzodiazepin-3-yl)acetamides ($= \alpha$ -Aryl-2,3,4,5-tetrahydro-2,4-dioxo-1*H*-1,5-benzodiazepine-3-acetamides), 483 Benzofuran derivatives, dihydroxy-

Electrochemical Oxidation of Catechols (=Benzene-1,2-diols) in the Presence of Benzoylacetonitrile: Synthesis of New Derivatives of 5,6-Dihydroxybenzofuran, 1605

Benzofuran-2.3-diamines

One-Pot Four-Component Synthesis of N²-Alkyl-N³-[2-(1,3,4-oxadiazol-2-yl)aryl]benzofuran-2,3-diamines, 788

Benzofuranylpropanoids

New Benzofuranylpropanoids from the Roots of Codonopsis lanceolata, 349

4H-1-Benzopyran, 2-(2-phenylethyl)-

Eight New 2-(2-Phenylethyl)chromone (=2-(2-Phenylethyl)-4H-1-benzopyran-4-one) Derivatives from Aquilaria malaccensis Agarwood, 1657

2H-1-Benzopyran-2-one

An Efficient Synthesis of 3-(1H-Tetrazol-5-yl) coumarins (= 3-(1H-Tetrazol-5-yl)-2H-1-benzopyran-2-ones) via Domino Knoevenagel Condensation, Pinner Reaction, and 1,3-Dipolar Cycloaddition in Water, 1600

4H-1-Benzopyran-1-one

Two New 2-(2-Phenylethyl)chromen-4-ones from Aquilaria sinensis (LOUR.) GILG, 951

[1]Benzopyrano-pyrido-isoquinolines

1,4-Dipolar Cycloaddition Reactions in Ionic Liquids: A Facile Synthesis of 9aH,15H-[1]Benzopyrano[3',2': 3,4]pyrido[2,1-a]isoquinolines (=9aH,15H-Benzo[a][1]benzopyrano[2,3-h]quinolizines), 76

4H-1-Benzopyrans

An Efficient One-Pot Synthesis of Substituted 1H-Naphtho[2,1-b]pyrans and 4H-1-Benzopyrans (= Chromenes) under Solvent-Free Microwave-Irradiation Conditions, 502

Benzoquinolin-3-one derivatives

Improved Synthesis of Indirubin Derivatives by Sequential Build-Up of the Indoxyl Unit: First Preparation of Fluorescent Indirubins, 1461

Benzo[g]quinoxalin-2-amine, 3,4-dihydro-

Isocyanide-Based Three-Component Synthesis of Highly Substituted 1,6-Dihydro-6,6-dimethylpyrazine-2,3dicarbonitrile, 3,4-Dihydrobenzo[g]quinoxalin-2-amine, and 3,4-Dihydro-3,3-dimethyl-quinoxalin-2-amine Derivatives, 246

Benzoquinoxaline, dihydro-

Isocyanide-Based Three-Component Synthesis of Highly Substituted 1,6-Dihydro-6,6-dimethylpyrazine-2,3dicarbonitrile, 3,4-Dihydrobenzo[g]quinoxalin-2-amine, and 3,4-Dihydro-3,3-dimethyl-quinoxalin-2-amine Derivatives, 246

Benzoselenazoles

A Convenient Synthesis of 2-Sulfanylbenzoselenazole Derivatives via the Reaction of 2-Lithiophenyl Isothiocyanates with Selenium, 761

Benzoselenazole-2(3H)-thiones

A Convenient Synthesis of 2-Sulfanylbenzoselenazole Derivatives via the Reaction of 2-Lithiophenyl Isothiocyanates with Selenium, 761

S-(Benzoselenazol-2-yl) thiocarboxylates

A Convenient Synthesis of 2-Sulfanylbenzoselenazole Derivatives via the Reaction of 2-Lithiophenyl Isothiocyanates with Selenium, 761

Benzotetramisole derivatives

Kinetic Resolution of Racemic Secondary Benzylic Alcohols by the Enantioselective Esterification Using Pyridine-3-carboxylic Anhydride (3-PCA) with Chiral Acyl-Transfer Catalysts, 1891

Benzothiazines, 2.3-dihvdro-

Highly cis-Diastereoselective Synthesis of Coumarin-Based 2,3-Disubstituted Dihydrobenzothiazines by Organocatalysis, 660

Benzothiazol

Two Novel Push-Pull Series of Benzothiazole-Based Dyes: Synthesis and Characterization, 1548

Benzotropolone

Synthesis and Structure Revision of Goupiolone A: A Benzotropolone Natural Product, 2194 2H-3,1-Benzoxazines, 1,4-dihydro-

One-Pot Synthesis of 1,4-Dihydro-2-thioxo-2H-3,1-benzoxazine-4-acetic Acid Derivatives by the Reaction of 2-Isothiocyanatophenyl Ketones with Lithium Enolates of Acetates and Tertiary Acetamides, 1561

4H-3.1-Benzoxazin-4-one derivatives

Ultrasound-Promoted Catalyst-Free Synthesis of 2,2'-(1,4-Phenylene)bis[1-acetyl-1,2-dihydro-4H-3,1-benzoxazin-4-one] Derivatives, 1217

Benzoxepine, dihydro-

The Reactions of α -Ylidene (Vinylidene, Benzylidene, Styrylmethylidene) Bis[carbonyls] with Copper Mono/ Bis[carbonylcarbenoids], 1409

Benzoylacetonitrile

Electrochemical Oxidation of Catechols (=Benzene-1,2-diols) in the Presence of Benzoylacetonitrile: Synthesis of New Derivatives of 5,6-Dihydroxybenzofuran, 1605

Bicyclo[2.2.2]octa-2,5-dienes

C1-Symmetric Bicyclo[2.2.2]octa-2,5-diene (bod*) Ligands in Rhodium-Catalyzed Asymmetric 1,4-Addition of Arylboronic Acids to Enones and 1,2-Addition to N-[(4-Nitrophenyl)sulfonyl]imines, 1809

Bidentate ligands

Synthesis of Some C2-Symmetric Bidentate Ligands and Their Complexes Derived from Feist's Acid, 268

Biginelli reaction

Aluminium Nitrate Nonahydrate (Al(NO₃)₃·9 H₂O): An Efficient Oxidant Catalyst for the One-Pot Synthesis of *Biginelli* Compounds from Benzyl Alcohols, 115

Bimetallic complexes

Cyano-Bridged 'Oximato' Complexes: Synthesis, Structure, and Catalase-Like Activities, 647

Biosynthesis

Preparation of Isotope Labeled/Unlabeled Key Intermediates in 2-Methyl-D-erythritol 4-Phosphate Terpenoid Biosynthetic Pathway, 683

Bipyridines

Synthesis, Characterization, and Biological Evaluation as Antibacterial Agents of Water-Soluble Calix[4]arenes and Phenol Derivatives Incorporating Carboxylate Groups, 1373

Biradicals

New Aspects of 1,3-Diphosphacyclobutane-2,4-diyls, 1723

Bisabolocurcumin ether

Three New Bisabolocurcumin Ethers from the Rhizomes of Curcuma longa L., 327

Bisabolones

Three New Bisabolocurcumin Ethers from the Rhizomes of Curcuma longa L., 327

Bis(arylmethylidene)acetone

Microwave-Assisted Stereoselective 1,3-Dipolar Cycloaddition of *C*,*N*-Diarylnitrone (*i.e.*, *N*-(Arylmethylidene)benzenamine *N*-Oxide) and Bis(arylmethylidene)acetone (=1,5-Diarylpenta-1,4-dien-3-one): NMR and Crystal Analysis of Diastereoisomeric Bis(isoxazolidines), 173

Biscarbalexine A

Alkaloids from the Stems of Glycosmis pentaphylla, 1449

Bis(dihydrooxazole) ligands

Perfluorinated Bis(dihydrooxazole) Complexes Immobilized on Fluorous Reversed-Phase Silica Gel as Recyclable Catalysts for Enantioselective *Diels-Alder* Reactions, 2072

Bisglybomine B

Alkaloids from the Stems of Glycosmis pentaphylla, 1449

Bis-heterocycles, enantiomerically pure

New Optically Active Bis-Heterocycles Derived from (S)-Proline, 1521

Bis(isoxazolidine) derivatives

Microwave-Assisted Stereoselective 1,3-Dipolar Cycloaddition of *C*,*N*-Diarylnitrone (*i.e.*, *N*-(Arylmethylidene)benzenamine *N*-Oxide) and Bis(arylmethylidene)acetone (=1,5-Diarylpenta-1,4-dien-3-one): NMR and Crystal Analysis of Diastereoisomeric Bis(isoxazolidines), 173

Bismuth nitrate

A Novel Asymmetric Synthesis of 3-(1*H*-Pyrrol-1-yl)-Substituted β -Lactams *via* a Bismuth Nitrate-Catalyzed Reaction, 839

Bis-oxazolines

Synthesis of a Novel C₂-Symmetric Bis-oxazoline (=Bis[4,5-dihydrooxazole]) and Its Application as Chiral Ligand in Asymmetric Transition Metal Catalysis, 831

Bisvinshanic acids A and B

Bisyinshanic Acids A and B, Two Novel Diterpene Dimers from the Roots of *Euphorbia yinshanica*, 1672 **Bithiazoles**

bitmazoies

Synthesis, Characterization, and Biological Evaluation as Antibacterial Agents of Water-Soluble Calix[4]arenes and Phenol Derivatives Incorporating Carboxylate Groups, 1373

Boron

Synthesis of Azaaromatic–Borane Intramolecular Complexes by Palladium-Catalyzed Reaction of Azaaromatic Halides with Alkynyl(triaryl)borates, 2474

Boron-metal exchange

A One-Pot Organometallic Route from a 4-Alkenylpyridine to a 4,4-Spiro-Linked Ethyl 1,4-Dihydropyridine-1-carboxylate, 2063

Botryolide E

Stereoselective Total Synthesis of Botryolide E, 1152

Brønsted acids

Preparation and Characterization of New C₂- and C₁-Symmetric Nitrogen, Oxygen, Phosphorous, and Sulfur Derivatives and Analogs of TADDOL. Part III. Some New Chiral Brønsted Acids for Organocatalysis and pK_a Values in MeO-(CH₂)₂-OH/H₂O – A Survey, 1303

Buta-1,3-dienes, 1,3-bis(trimethylsilyloxy)-

Regioselective Synthesis of 6-[Chloro(difluoro)methyl]salicylates by [3+3] Cyclocondensations of 1,3-Bis(trimethylsilyloxy)buta-1,3-dienes with 1-Chloro-1,1-difluoro-4-(trimethylsilyloxy)pent-3-en-2-one, 1037

tert-Butyl radical

Asymmetric Synthesis of β^2 -homo-*tert*-Leucine via Radical Addition to Enantiopure N-Fumaroylhexahydrobenzooxazolidin-2-one, 1714

γ-Butyrolactones

Synthesis of Halogenated α,β -Unsaturated γ -Butyrolactone Derivatives by Triphenylphosphine-Catalyzed Cyclization of α -Halogeno Ketones with Dialkyl Acetylenedicarboxylates (=Dialkyl But-2-ynedioates), 810

Caesium complexes

Dynamic Phenomena in Self-Complementary {2}-Metallocryptates Probed by Solution ¹³³Cs-NMR. New Insights into Ion Pairing Processes: X-Ray Structure and Solid-State NMR Spectra of a Meandering Species, 2429

Caffeoylquinic acid derivatives

On-Line Radical Scavenging Detection and Characterization of Antioxidants from Artemisia herba-alba, 564 Calixarenes

New Efficient Synthetic Pathways to Tetrakis{p-[(diethylphosphono)methyl]}calix[4]arene, 766

Synthesis, Characterization, and Biological Evaluation as Antibacterial Agents of Water-Soluble Calix[4]arenes and Phenol Derivatives Incorporating Carboxylate Groups, 1373

Capture/release strategy

A Capture-and-Release Catalytic Flow System, 2578

Carbanions

Intermolecular Reactions of γ -Halocarbanions – Stepwise Analogs of 1,3-Dipolar Cycloaddition, 1871 **Carbenoid intermediates**

The Reactions of α -Ylidene (Vinylidene, Benzylidene, Styrylmethylidene) Bis[carbonyls] with Copper Mono/ Bis[carbonylcarbenoids], 1409

1,1-Carboboration

Carboboration Reactions of 1,2-Bis[(diarylphosphino)ethynyl]benzenes with Tris(pentafluorophenyl)borane, 2515

Carbocyclization

Syntheses of Racemic and Scalemic *cis*-Chrysanthemic Acid from β , γ -Unsaturated Cyclohexanol, 2123 Carbodiimides

Synthesis of 1,5-Disubstituted 1*H*-Tetrazole Derivatives via a Three-Component Reaction of Carbodiimides, Isocyanides, and Trimethylsilyl Azide, 594

Carbohydrates

Toward the Synthesis of Modified Carbohydrates by Conjugate Addition of Propane-1,3-dithiol to α,β-Unsaturated Ketones, 2099

β -Carboline alkaloids

Five New β -Carboline-Type Alkaloids from *Stellaria dichotoma* var. *lanceolata*, 1018

Carbon dioxide

One-Pot Synthesis of 4-Substituted 3,4-Dihydro-3-methoxyisocoumarins via Carboxylation of α-Substituted 2-Lithio-β-methoxystyrenes with Carbon Dioxide, 191

Carbonitriles

A Hydrogen Chloride-Free Pinner Reaction Promoted by Lewis Acids, 1851

Carbonyl compounds, α , β -unsaturated

Nucleophilic Fluoroalkylation of α , β -Unsaturated Carbonyl Compounds with α -Fluorinated Sulfones: Investigation of the Reversibility of 1,2-Additions and the Formation of 1,4-Adducts, 2043

Carotenoids

Isolation and Characterization of Novel Capsorubin-Like Carotenoids from the Red Mamey (Pouteria sapota), 983

Catalase-like activity

Cyano-Bridged 'Oximato' Complexes: Synthesis, Structure, and Catalase-Like Activities, 647

Catalysis

Isosteviol–Proline Conjugates as Highly Efficient Amphiphilic Organocatalysts for Asymmetric Three-Component *Mannich* Reactions in the Presence of Water, 43

Synthesis of 1H,7H,12bH-Pyrano[3',4':5,6]pyrano[3,4-c][1]benzopyran-1-one via Domino Knoevenagel/ Hetero-Diels-Alder Reaction with Theoretical Investigations, 52

Simple and Highly Efficient Catalytic Thiocyanation of Aromatic Compounds in Aqueous Media, 106

Aluminium Nitrate Nonahydrate ($Al(NO_3)_3$, 9 H₂O): An Efficient Oxidant Catalyst for the One-Pot Synthesis of *Biginelli* Compounds from Benzyl Alcohols, 115

Trinuclear Non-Heme Iron Complexes Based on 4-Substituted 2,6-Diacylpyridine Ligands as Catalysts in Aerobic Allylic Oxidations, 197

Substrate Range of the Titanium TADDOLate Catalyzed Asymmetric Fluorination of Activated Carbonyl Compounds, 353

Regioselective Arylation and Alkynylation of 2,3-Dibromo-1*H*-inden-1-one by *Suzuki–Miyaura* and *Sonogashira* Cross-Coupling Reactions, 469

Highly cis-Diastereoselective Synthesis of Coumarin-Based 2,3-Disubstituted Dihydrobenzothiazines by Organocatalysis, 660

Synthesis of Halogenated α,β -Unsaturated γ -Butyrolactone Derivatives by Triphenylphosphine-Catalyzed Cyclization of α -Halogeno Ketones with Dialkyl Acetylenedicarboxylates (=Dialkyl But-2-ynedioates), 810

Synthesis of a Novel C₂-Symmetric Bis-oxazoline (=Bis[4,5-dihydrooxazole]) and Its Application as Chiral Ligand in Asymmetric Transition Metal Catalysis, 831

A Novel Asymmetric Synthesis of 3-(1*H*-Pyrrol-1-yl)-Substituted β-Lactams via a Bismuth Nitrate-Catalyzed Reaction, 839

Mizoroki-Heck and Sonogashira Cross-Couplings Catalyzed by CNC Palladium Pincer Complexes in Organic and Aqueous Media, 955

1,2-Oxazine N-Oxides as Catalyst Resting States in Michael Additions of Aldehydes to Nitro Olefins Organocatalyzed by a,a-Diphenylprolinol Trimethylsilyl Ether. Preliminary Communication, 1064

Preparation and Characterization of New C₂- and C₁-Symmetric Nitrogen, Oxygen, Phosphorous, and Sulfur Derivatives and Analogs of TADDOL. Part I. Compounds Containing One or Two Sulfur-Containing Substituents and Use in Cu-Catalyzed Enantioselective Conjugate Additions to Cyclic Enones, 1239

Gold(I)-Catalyzed Cyclodehydration Enabled by the Triisopropylsilyl Group: A Synthetically Versatile Methodology, 1773

*C*₁-Symmetric Bicyclo[2.2.2]octa-2,5-diene (bod*) Ligands in Rhodium-Catalyzed Asymmetric 1,4-Addition of Arylboronic Acids to Enones and 1,2-Addition to *N*-[(4-Nitrophenyl)sulfonyl]imines, 1809

Perfluorinated Bis(dihydrooxazole) Complexes Immobilized on Fluorous Reversed-Phase Silica Gel as Recyclable Catalysts for Enantioselective *Diels–Alder* Reactions, 2072

Chiral Proline-Based P,O and P,N Ligands for Iridium-Catalyzed Asymmetric Hydrogenation, 2176

Asymmetric Proline-Catalyzed Addition of Aldehydes to 3*H*-Indol-3-ones: Enantioselective Synthesis of 2,3-Dihydro-1*H*-indol-3-ones with Quaternary Stereogenic Centers, 2296

Synthesis of Azaaromatic–Borane Intramolecular Complexes by Palladium-Catalyzed Reaction of Azaaromatic Halides with Alkynyl(triaryl)borates, 2474

A Capture-and-Release Catalytic Flow System, 2578

Design and Synthesis of Nucleoproline Amino Acids for the Straightforward Preparation of Chiral and Conformationally Constrained Nucleopeptides, 2621

Organocatalysis of C=N/C=N and C=C/C=N Exchange in Dynamic Covalent Chemistry, 2635

Minimally Competent Lewis Acid Catalysts: Indium(III) and Bismuth(III) Salts Produce Rhamnosides (=6-Deoxymannosides) in High Yield and Purity, 2652

Lewis Acid-Mediated Addition of Amino Acid-Substituted *a*-Allylsilanes to Aromatic Acetals, 2660 Alkylations of Chiral Nickel(II) Complexes of Glycine under Phase-Transfer Conditions, 2672

Catechol

Electrochemical Oxidation of Catechols (=Benzene-1,2-diols) in the Presence of Benzoylacetonitrile: Synthesis of New Derivatives of 5,6-Dihydroxybenzofuran, 1605

Cationic dye

Two Novel Push–Pull Series of Benzothiazole-Based Dyes: Synthesis and Characterization, 1548

Cembranoids

Yalongenes A and B, Two New Cembranoids with Cytoprotective Effects from the Hainan Soft Coral Sarcophyton trocheliophorum MARENZELLER, 235

Centella asiatica

Two New Pentacyclic Triterpenoids from Centella asiatica, 255

Centellosides D and E

Two New Pentacyclic Triterpenoids from Centella asiatica, 255

(-)-Cephalotaxine

Formal Synthesis of (-)-Cephalotaxine, 2502

Cephalotaxus alkaloids

Formal Synthesis of (–)-Cephalotaxine, 2502

Cerebrosides

Two New Cerebrosides from the Aerial Parts of Tithonia diversifolia, 1169

Cheletropic reaction

A Functionalized Spiro[chlorin-porphyrin]-Type 'Dimer' Dizinc Complex from Rapid [4+2] Self-cycloaddition of a Conjugated [$\beta\beta'$ -Bis(methylene)porphyrinato]zinc, 211

Chiral auxiliaries

Asymmetric Synthesis of β^2 -homo-*tert*-Leucine via Radical Addition to Enantiopure N-Fumaroylhexahydrobenzooxazolidin-2-one, 1714

Chiral solvating agent

New Optically Active Bis-Heterocycles Derived from (S)-Proline, 1521

Chiral tether

Application of D-chiro-Inositol as a Chiral Template for the Diels-Alder Reaction, 2026

Chirality transfer

Chirality Transfer in the Formation of Poly(oxymethylene) Helices by Anionic Polymerization, 845

Chromenones

Sesquiterpenoids and 2-(2-Phenylethyl)-4*H*-chromen-4-one (=2-(2-Phenylethyl)-4*H*-1-benzopyran-4-one) Derivatives from *Aquilaria malaccensis* Agarwood, 636

Two New 2-(2-Phenylethyl)chromen-4-ones from Aquilaria sinensis (LOUR.) GILG, 951

Chromones

Synthesis of Novel Disubstituted Pyrazolo[1,5-*a*]pyrimidines, Imidazo[1,2-*a*]pyrimidines, and Pyrimido[1,2-*a*]benzimidazoles Containing Thioether and Aryl Moieties, 989

Eight New 2-(2-Phenylethyl)chromone (=2-(2-Phenylethyl)-4H-1-benzopyran-4-one) Derivatives from Aquilaria malaccensis Agarwood, 1657

Cinchona alkaloids

Highly cis-Diastereoselective Synthesis of Coumarin-Based 2,3-Disubstituted Dihydrobenzothiazines by Organocatalysis, 660

Cinnamic acid, (glucosyloxy)(methoxy)-

On-Line Radical Scavenging Detection and Characterization of Antioxidants from Artemisia herba-alba, 564 Citrus unshiu

Identification of Three New Flavonoids from the Peels of Citrus unshiu, 240

Civetone

Exaltone[®] (=Cyclopentadecanone) from Isomuscone[®] (=Cyclohexadecanone), a One-C-Atom Ring-Contraction Methodology via a Stereospecific Favorskii Rearrangement: Regioselective Application to (-)-(R)-Muscone, 428

Cladosporium tenuissimum LR 463

A Convergent Synthesis of a Twelve-Membered Macrolide Natural Product, (6*R*,12*S*)-6-Hydroxy-12-methyl-1-oxacyclododecane-2,5-dione, 1623

'Click chemistry'

- A One-Pot Tandem Ugi Multicomponent Reaction (MCR)/Click Reaction as an Efficient Protecting-Group-Free Route to 1H-1,2,3-Triazole-Modified α-Amino Acid Derivatives and Peptidomimetics, 87
- Facile One-Pot Synthesis of Monosubstituted 1-Aryl-1*H*-1,2,3-triazoles from Arylboronic Acids and Prop-2ynoic Acid (= Propiolic Acid) or Calcium Acetylide (= Calcium Carbide) as Acetylene Source, 448
- 'Click Synthesis' of Some Novel O-Substituted Oximes Containing 1,2,3-Triazole-1,4-diyl Residues as New Analogs of β -Adrenoceptor Antagonists, 491
- Design and Synthesis of Nucleoproline Amino Acids for the Straightforward Preparation of Chiral and Conformationally Constrained Nucleopeptides, 2621

c-Met Inhibitor

Design and Synthesis of Some Novel 2,3,4,5-Tetrahydro-1*H*-pyrido[4,3-*b*]indoles as Potential c-Met Inhibitors, 320

Cobalt complexes

Cyano-Bridged 'Oximato' Complexes: Synthesis, Structure, and Catalase-Like Activities, 647

Codonopsis lanceolata

New Benzofuranylpropanoids from the Roots of Codonopsis lanceolata, 349

Computational chemistry

Fluorine as a Regiocontrol Element in the Ring Opening of Bicyclic Aziridiniums, 2265 Condensation reactions

South a size of 2.2 Discul

Synthesis of 3,3-Disubstituted Oxindoles *via* a Three-Component Condensation Reaction in H₂O, 1126

Conformational analysis

Ring-Extended Gramicidin S Analogs Containing cis δ-Sugar Amino Acid Turn Mimetics with Varying Ring Size, 2544

Conjugate additions

Preparation and Characterization of New C₂- and C₁-Symmetric Nitrogen, Oxygen, Phosphorous, and Sulfur Derivatives and Analogs of TADDOL. Part I. Compounds Containing One or Two Sulfur-Containing Substituents and Use in Cu-Catalyzed Enantioselective Conjugate Additions to Cyclic Enones, 1239

Toward the Synthesis of Modified Carbohydrates by Conjugate Addition of Propane-1,3-dithiol to α , β -Unsaturated Ketones, 2099

Copper catalysis

Design and Synthesis of Nucleoproline Amino Acids for the Straightforward Preparation of Chiral and Conformationally Constrained Nucleopeptides, 2621

Copper complexes

Cyano-Bridged 'Oximato' Complexes: Synthesis, Structure, and Catalase-Like Activities, 647

Synthesis of a Novel C₂-Symmetric Bis-oxazoline (=Bis[4,5-dihydrooxazole]) and Its Application as Chiral Ligand in Asymmetric Transition Metal Catalysis, 831

Preparation and Characterization of New C₂- and C₁-Symmetric Nitrogen, Oxygen, Phosphorous, and Sulfur Derivatives and Analogs of TADDOL. Part I. Compounds Containing One or Two Sulfur-Containing Substituents and Use in Cu-Catalyzed Enantioselective Conjugate Additions to Cyclic Enones, 1239

Perfluorinated Bis(dihydrooxazole) Complexes Immobilized on Fluorous Reversed-Phase Silica Gel as Recyclable Catalysts for Enantioselective *Diels–Alder* Reactions, 2072

Copper iodide

Synthesis of 1H,7H,12bH-Pyrano[3',4':5,6]pyrano[3,4-c][1]benzopyran-1-one via Domino Knoevenagel/ Hetero-Diels-Alder Reaction with Theoretical Investigations, 52

Coprinacins A and B

Highly Acetylated Lanostane-Type Triterpenoids from Coprinus cinereus 120, 282

Coprinus cinereus

Highly Acetylated Lanostane-Type Triterpenoids from Coprinus cinereus 120, 282

(-)-(R)-Cordiachromene

Enantioselective Synthesis of (-)-(R)-Cordiachromene and (-)-(R)-Dictyochromenol Utilizing Intramolecular S_N Ar Reaction, 1946

Coumarin-3-carboxamides

Efficient Synthesis of Novel Coumarin-3-carboxamides (=2-Oxo-2H-1-benzopyran-3-carboxamides) Containing Lipophilic Spacers, 528

Coumarin-3-carboxylic acids

Rapid Synthesis of Novel and Known Coumarin-3-carboxylic Acids Using Stannous Chloride Dihydrate under Solvent-Free Conditions, 455

Coumarins

Highly cis-Diastereoselective Synthesis of Coumarin-Based 2,3-Disubstituted Dihydrobenzothiazines by Organocatalysis, 660

An Efficient Synthesis of 3-(1*H*-Tetrazol-5-yl)coumarins (=3-(1*H*-Tetrazol-5-yl)-2*H*-1-benzopyran-2-ones) via Domino Knoevenagel Condensation, Pinner Reaction, and 1,3-Dipolar Cycloaddition in Water, 1600

Coupling reagents

Enantioselective Solid-Phase Peptide Synthesis Using Traceless Chiral Coupling Reagents and Racemic Amino Acids, 2084

Covalent dynamic libraries

Organocatalysis of C=N/C=N and C=C/C=N Exchange in Dynamic Covalent Chemistry, 2635

Cross-coupling reactions

Regioselective Arylation and Alkynylation of 2,3-Dibromo-1*H*-inden-1-one by *Suzuki–Miyaura* and *Sonogashira* Cross-Coupling Reactions, 469

Mizoroki–Heck and Sonogashira Cross-Couplings Catalyzed by CNC Palladium Pincer Complexes in Organic and Aqueous Media, 955

Directed Metalation–Cross-Coupling Strategies. Total Syntheses of the Alleged and the Revised Phenanthrene Natural Product Gymnopusin, 2680

Cross-linked polymers

Cross-Linked-Polymer-Supported N-{2'-[(Arylsulfonyl)amino][1,1'-binaphthalen]-2-yl}prolinamide as Organocatalyst for the Direct Aldol Intermolecular Reaction under Solvent-Free Conditions, 1831

Cross-pinacol coupling

A One-Pot Cross-Pinacol Coupling/Rearrangement Procedure, 1970

Crystal growth

Room Temperature Synthesis and Size Control of HKUST-1, 2278

Cuparene-type sesquiterpenes

Four New Cuparene-Type Sesquiterpenes from Flammulina velutipes, 261

Curcuma longa

Three New Bisabolocurcumin Ethers from the Rhizomes of Curcuma longa L., 327

Cyano-bridged complexes

Cyano-Bridged 'Oximato' Complexes: Synthesis, Structure, and Catalase-Like Activities, 647

Cyclamen africanum

Two New Triterpene Saponins from Cyclamen africanum BOISS. & REUTER, 1573

[2.3.3]Cyclazin-5-ones

Novel Synthesis of 2-Alkylquinolizinium-1-olates and Their 1,3-Dipolar Cycloaddition Reactions with Acetylenes, 737

Cyclic peptides

Two New Cycloheptapeptides from Psammosilene tunicoides, 929

Cyclin-dependent kinase

Improved Synthesis of Indirubin Derivatives by Sequential Build-Up of the Indoxyl Unit: First Preparation of Fluorescent Indirubins, 1461

Cyclization reactions

Radical Cyclization Reactions via Manganese(III) Acetate Leading to 2-Thienyl-Substituted Dihydrofuran Compounds, 795

Synthesis of Halogenated α,β -Unsaturated γ -Butyrolactone Derivatives by Triphenylphosphine-Catalyzed Cyclization of α -Halogeno Ketones with Dialkyl Acetylenedicarboxylates (=Dialkyl But-2-ynedioates), 810

Cyclization of (2-Alkenylphenyl)carbonyl Compounds to Polycyclic Arenes Catalyzed by Copper(II) Trifluoromethanesulfonate or Trifluoromethanesulfuric Acid, 1953

Synthesis and Reactions of 2-[1-Methyl-1-(pyrrolidin-2-yl)ethyl]-1*H*-pyrrole and Some Derivatives with Aldehydes: Chiral Structures Combining a Secondary-Amine Group with an 1*H*-Pyrrole Moiety as Excellent H-Bond Donor, 2249

(2-Bromoethyl)sulfonium Trifluoromethanesulfonates in Stereoselective Annulation Reactions for the Formation of Fused Bicyclic Epoxides and Aziridines, 2384

Cycloadditions

1,2-Bis(trifluoromethyl)ethene-1,2-dicarbonitrile: (2+2) Cycloadditions with Vinyl Ethers, 1

- 1,4-Dipolar Cycloaddition Reactions in Ionic Liquids: A Facile Synthesis of 9a*H*,15*H*-[1]Benzopyrano[3',2': 3,4]pyrido[2,1-*a*]isoquinolines (=9a*H*,15*H*-Benzo[*a*][1]benzopyrano[2,3-*h*]quinolizines), 76
- Microwave-Assisted Stereoselective 1,3-Dipolar Cycloaddition of *C*,*N*-Diarylnitrone (*i.e.*, *N*-(Arylmethylidene)benzenamine *N*-Oxide) and Bis(arylmethylidene)acetone (=1,5-Diarylpenta-1,4-dien-3-one): NMR and Crystal Analysis of Diastereoisomeric Bis(isoxazolidines), 173
- A Functionalized Spiro[chlorin-porphyrin]-Type 'Dimer' Dizinc Complex from Rapid [4+2] Self-cycloaddition of a Conjugated [$\beta\beta$ /-Bis(methylene)porphyrinato]zinc, 211
- Unexpected Course of the Reaction of 2-Unsubstituted 1*H*-Imidazole 3-Oxides with Ethyl Acrylate, 577 1,2-Bis(trifluoromethyl)ethene-1,2-dicarbonitrile and Vinyl Ethers: Cyclic Ketene Imines on the Pathway to 1:2 Cycloadducts, 673
- Novel Synthesis of 2-Alkylquinolizinium-1-olates and Their 1,3-Dipolar Cycloaddition Reactions with Acetylenes, 737
- 1,2-Bis(trifluoromethyl)ethene-1,2-dicarbonitrile: Enol Ethers and Ketene Acetals as Cycloaddition Partners, 1049
- An Efficient Synthesis of 3-(1*H*-Tetrazol-5-yl)coumarins (=3-(1*H*-Tetrazol-5-yl)-2*H*-1-benzopyran-2-ones) via Domino Knoevenagel Condensation, Pinner Reaction, and 1,3-Dipolar Cycloaddition in Water, 1600 Intermolecular Reactions of γ-Halocarbanions – Stepwise Analogs of 1,3-Dipolar Cycloaddition, 1871
- Synthesis of Enantiomerically Pure Isoxazolidine Monomers for the Preparation of β^3 -Oligopeptides by Iterative α -Keto Acid–Hydroxylamine (KAHA) Ligations, 2481
- Design and Synthesis of Nucleoproline Amino Acids for the Straightforward Preparation of Chiral and Conformationally Constrained Nucleopeptides, 2621

Cyclobutanes

1,2-Bis(trifluoromethyl)ethene-1,2-dicarbonitrile: (2+2) Cycloadditions with Vinyl Ethers, 1

Cyclobutene

Synthesis and Structure Revision of Goupiolone A: A Benzotropolone Natural Product, 2194

Cyclocondensation

Aluminium Nitrate Nonahydrate (Al(NO₃)₃·9 H₂O): An Efficient Oxidant Catalyst for the One-Pot Synthesis of *Biginelli* Compounds from Benzyl Alcohols, 115

Synthesis of Novel Disubstituted Pyrazolo[1,5-*a*]pyrimidines, Imidazo[1,2-*a*]pyrimidines, and Pyrimido[1,2-*a*]benzimidazoles Containing Thioether and Aryl Moieties, 989

Regioselective Synthesis of 6-[Chloro(difluoro)methyl]salicylates by [3+3] Cyclocondensations of 1,3-Bis(trimethylsilyloxy)buta-1,3-dienes with 1-Chloro-1,1-difluoro-4-(trimethylsilyloxy)pent-3-en-2-one, 1037

Cyclodehydration

Gold(I)-Catalyzed Cyclodehydration Enabled by the Triisopropylsilyl Group: A Synthetically Versatile Methodology, 1773

Cyclo-β-dipeptides

Microwave-Assisted Synthesis of β -Lactams and Cyclo- β -dipeptides, 2218

Cyclohexadepsipeptides

Cyclohexadepsipeptides from the Filamentous Fungus Acremonium sp. BCC 2629, 963

Cyclohexanecarboxylic acid

Two New Octulosonic Acid Derivatives and a New Cyclohexanecarboxylic Acid Derivative from *Erigeron* bonariensis L., 1613

Cyclohexanecarboxylic acid, 1-(aminomethyl)-

The Structural Characterization of Folded Peptides Containing the Conformationally Constrained β -Amino Acid Residue $\beta^{2.2}Ac_6c$, 2589

Cyclopent-2-enones

The Morita-Baylis-Hillman Reaction of Chiral Highly Oxygenated Cyclopent-2-enones, 1912

Cyclopeptides

A New Cyclopeptide and Other Constituents from the Leaves of Zanthoxylum rigidum HUMB. & BONPL. ex WILLD. (Rutaceae), 935

Total Synthesis, Absolute Configuration, and Biological Activity of Xyloallenoide A, 973 Cyclopropanes

Two Unusual Methylidenecyclopropane Glucosides from Metaxya rostrata C.PRESL, 1531

Synthesis and Structure Revision of Goupiolone A: A Benzotropolone Natural Product, 2194 Cytoprotective activity

Yalongenes A and B, Two New Cembranoids with Cytoprotective Effects from the Hainan Soft Coral Sarcophyton trocheliophorum MARENZELLER, 235

Cytotoxic activity

Alkaloid and Anthraquinone Derivatives Produced by the Marine-Derived Endophytic Fungus Eurotium rubrum, 163

Two New Pentacyclic Triterpenoids from Centella asiatica, 255

Highly Acetylated Lanostane-Type Triterpenoids from Coprinus cinereus 120, 282

Total Synthesis, Absolute Configuration, and Biological Activity of Xyloallenoide A, 973

- Three New Pregnane Alkaloids from Veratrum taliense, 1114
- Polyprenylated Xanthones and Benzophenones from the Bark of Garcinia oblongifolia, 1442

Six New Sesquiterpenes from Eupatorium lindleyanum, 1637

Dealkylation

Modified Riemschneider Reaction of 3-Thiocyanatoquinolinediones, 1352 Debenzylation

New Optically Active Bis-Heterocycles Derived from (S)-Proline, 1521 9-Dehvdroxyeurotinone

Alkaloid and Anthraquinone Derivatives Produced by the Marine-Derived Endophytic Fungus Eurotium rubrum, 163

Demethoxybisabolocurcumin ether

Three New Bisabolocurcumin Ethers from the Rhizomes of Curcuma longa L., 327

Dendritic structures

Main-Chain Scission of a Charged Fifth-Generation Dendronized Polymer, 2399

Dendromers

Main-Chain Scission of a Charged Fifth-Generation Dendronized Polymer, 2399

Density-functional theory (DFT)

Synthesis of 1H,7H,12bH-Pyrano[3',4':5,6]pyrano[3,4-c][1]benzopyran-1-one via Domino Knoevenagel/ Hetero-Diels-Alder Reaction with Theoretical Investigations, 52

Abieseconordines A and B, Two Novel Norditerpenoids with a 18-Nor-5,10:9,10-disecoabietane Skeleton from Abies forrestii, 415

New Aspects of 1,3-Diphosphacyclobutane-2,4-diyls, 1723

A Comparison of Density-Functional Theory and Hartree-Fock Modeling of Organolithium Equilibria, 1976 Deoxofluorination/rearrangement

Fluorine in Peptides: The Synthesis of α -Fluoro- β -Amino Dipeptides by Direct Deoxofluorination/ Rearrangement of N-Seryl Dipeptides, 2331

3'-Deoxycapsorubin

Isolation and Characterization of Novel Capsorubin-Like Carotenoids from the Red Mamey (Pouteria sapota), 983

Depolymerization

Main-Chain Scission of a Charged Fifth-Generation Dendronized Polymer, 2399

Deviation from linearity

Deviation of the Kempster-Lipson Law from Linearity, 1202

Diamines

A Novel and Efficient Synthesis of Pyrido[1,2-a]-Fused 1,3-Diazaheterocyclic Compounds via a One-Pot Three-Component Reaction, 152

Diastereoselective addition

Asymmetric Synthesis of β^2 -homo-tert-Leucine via Radical Addition to Enantiopure N-Fumaroylhexahydrobenzooxazolidin-2-one, 1714

Diastereoselective synthesis

Highly cis-Diastereoselective Synthesis of Coumarin-Based 2,3-Disubstituted Dihydrobenzothiazines by Organocatalysis, 660

1,3-Diazabicyclo[3.1.0]hex-3-ene

Two 1,3-Diazabicyclo[3.1.0]hex-3-enes with a 'Tripod' Core, 536

Diazo compounds

The Reactions of a-Ylidene (Vinylidene, Benzylidene, Styrylmethylidene) Bis[carbonyls] with Copper Mono/ Bis[carbonylcarbenoids], 1409

Dibenzodioxocinones

A Convergent Approach to Dibenzodioxocinones: Synthesis of Racemic Penicillide, 626

Dibromination

Syntheses of Racemic and Scalemic cis-Chrysanthemic Acid from β , γ -Unsaturated Cyclohexanol, 2123 Dichotomines F-J

Five New β -Carboline-Type Alkaloids from Stellaria dichotoma var. lanceolata, 1018

(-)-(R)-Dictyochromenol

Enantioselective Synthesis of (-)-(R)-Cordiachromene and (-)-(R)-Dictyochromenol Utilizing Intramolecular S_NAr Reaction, 1946

Didemethoxybisabolocurcumin ether

Three New Bisabolocurcumin Ethers from the Rhizomes of Curcuma longa L., 327

3,3'-Dideoxycapsorubin

Isolation and Characterization of Novel Capsorubin-Like Carotenoids from the Red Mamey (Pouteria sapota), 983

Diels-Alder reaction

Synthesis of 1H,7H,12bH-Pyrano[3',4':5,6]pyrano[3,4-c][1]benzopyran-1-one via Domino Knoevenagel/ Hetero-Diels-Alder Reaction with Theoretical Investigations, 52

A Functionalized Spiro[chlorin-porphyrin]-Type 'Dimer' Dizinc Complex from Rapid [4+2] Self-cycloaddition of a Conjugated [β , β' -Bis(methylene)porphyrinato]zinc, 211

Application of D-chiro-Inositol as a Chiral Template for the Diels-Alder Reaction, 2026

Perfluorinated Bis(dihydrooxazole) Complexes Immobilized on Fluorous Reversed-Phase Silica Gel as Recyclable Catalysts for Enantioselective Diels-Alder Reactions, 2072

Dienamine activation

Secondary Amine-Catalyzed Asymmetric γ-Alkylation of α-Branched Enals via Dienamine Activation, 1985 Diketopiperazine alkaloids

Diketopiperazine Alkaloids Produced by the Endophytic Fungus Aspergillus fumigatus from the Stem of Erythrophloeum fordii OLIV., 1401

Diketopiperazines

Highly Conjugated Ergostane-Type Steroids and Aranotin-Type Diketopiperazines from the Fungus Aspergillus terreus BCC 4651, 308

Dimerization

A Functionalized Spiro[chlorin-porphyrin]-Type 'Dimer' Dizinc Complex from Rapid [4+2] Self-cycloaddition of a Conjugated [β , β' -Bis(methylene)porphyrinato]zinc, 211

2,4-Dioxa-8-aza-3-phosphadecalins

Synthesis and Characterization of Enantiomerically Pure cis- and trans-3-Fluoro-2,4-dioxa-8-aza-3-phosphadecalin 3-Oxides as y-Homoacetylcholine Mimetics and Inhibitors of Acetylcholinesterase, 17

Dioxoanthracenediyl ligand

Coordination of Ligands That Contain Thiocarbonyl, Carbonyl, or Thiolate Functionalities to Complex Fragments of Palladium in Various Oxidation States, 2528

Diphosphacyclobutanediyl

New Aspects of 1,3-Diphosphacyclobutane-2,4-diyls, 1723

Diprion jingynanensis

Asymmetric Syntheses of the Sex Pheromones of Pine Sawflies, Their Homologs and Stereoisomers, 1799 **Diterpene alkaloids**

A New Diterpenoid Alkaloid from the Roots of a White-Flowering Aconitum orientale Sample, 314 Diterpenes

Two New Diterpenes from Solidago canadensis, 1121

Diterpenoids

Diastereoisomeric ent-Labdane Diterpenoids from Andrographis paniculata, 120

Three New ent-Kaurane Diterpenoids from Siegesbeckia pubescens, 221

Abieseconordines A and B, Two Novel Norditerpenoids with a 18-Nor-5,10:9,10-disecoabietane Skeleton from *Abies forrestii*, 415

New Labdane-Type Diterpenoids from Leonurus heterophyllus, 618

A New Abietane Diterpenoid from Plectranthus bishopianus BENTH., 643

Terpenoids from Loxocalyx urticifolius, 1136

Two New Diterpenoids and Other Constituents from Isodon japonicus, 1175

Bisyinshanic Acids A and B, Two Novel Diterpene Dimers from the Roots of *Euphorbia yinshanica*, 1672 Diversity-oriented synthesis

Designing and Synthesis of Novel Amidated Fentanyl Analogs, 818

DNA

Verification and Biophysical Characterization of a New Three-Color Förster Resonance-Energy-Transfer (FRET) System in DNA, 543

Improved DNA Clamps by Stacking to Adjacent Nucleobases, 1538

Domino reactions

Synthesis of 1H,7H,12bH-Pyrano[3',4':5,6]pyrano[3,4-c][1]benzopyran-1-one via Domino Knoevenagel/ Hetero-Diels-Alder Reaction with Theoretical Investigations, 52

An Efficient Synthesis of 3-(1*H*-Tetrazol-5-yl)coumarins (=3-(1*H*-Tetrazol-5-yl)-2*H*-1-benzopyran-2-ones) via Domino Knoevenagel Condensation, Pinner Reaction, and 1,3-Dipolar Cycloaddition in Water, 1600

Donor-acceptor cyclopropanes

Synthesis of Perfluoroalkyl-Substituted γ-Lactones and 4,5-Dihydropyridazin-3(2H)-ones via Donor– Acceptor Cyclopropanes, 1818

Drug discovery

Designing and Synthesis of Novel Amidated Fentanyl Analogs, 818

Electrocatalysis

{1,1'-(Dimethylsilylene)bis[methanechalcogenolato]}diiron Complexes [2Fe2E(Si)] (E = S, Se, Te) - [FeFe] Hydrogenase Models, 2168

Electrochemical oxidation

Electrochemical Oxidation of Catechols (=Benzene-1,2-diols) in the Presence of Benzoylacetonitrile: Synthesis of New Derivatives of 5,6-Dihydroxybenzofuran, 1605

Electrocyclic reactions

Synthesis of 4-Aryl-1,7-naphthyridine-2(1H)-thiones by the Electrocyclic Reaction of 4-(1-Arylalk-1-enyl)-3isothiocyanatopyridines Generated *in situ* from the Corresponding Isocyanides, 556

The Reactions of α -Ylidene (Vinylidene, Benzylidene, Styrylmethylidene) Bis[carbonyls] with Copper Mono/ Bis[carbonylcarbenoids], 1409

Electron affinity

Synthesis of Azaaromatic-Borane Intramolecular Complexes by Palladium-Catalyzed Reaction of Azaaromatic Halides with Alkynyl(triaryl)borates, 2474

Electronic circular dichroism (ECD)

Abieseconordines A and B, Two Novel Norditerpenoids with a 18-Nor-5,10:9,10-disecoabietane Skeleton from *Abies forrestii*, 415

Enamines

1,2-Oxazine N-Oxides as Catalyst Resting States in *Michael* Additions of Aldehydes to Nitro Olefins Organocatalyzed by α, α -Diphenylprolinol Trimethylsilyl Ether. Preliminary Communication, 1064

Enantioselective synthesis

Synthesis of a Novel C₂-Symmetric Bis-oxazoline (=Bis[4,5-dihydrooxazole]) and Its Application as Chiral Ligand in Asymmetric Transition Metal Catalysis, 831

Preparation and Characterization of New C₂- and C₁-Symmetric Nitrogen, Oxygen, Phosphorous, and Sulfur Derivatives and Analogs of TADDOL. Part I. Compounds Containing One or Two Sulfur-Containing Substituents and Use in Cu-Catalyzed Enantioselective Conjugate Additions to Cyclic Enones, 1239

Asymmetric Syntheses of the Sex Pheromones of Pine Sawflies, Their Homologs and Stereoisomers, 1799

- C₁-Symmetric Bicyclo[2.2.2]octa-2,5-diene (bod*) Ligands in Rhodium-Catalyzed Asymmetric 1,4-Addition of Arylboronic Acids to Enones and 1,2-Addition to N-[(4-Nitrophenyl)sulfonyl]imines, 1809
- Cross-Linked-Polymer-Supported N-{2'-[(Arylsulfonyl)amino][1,1'-binaphthalen]-2-yl}prolinamide as Organocatalyst for the Direct Aldol Intermolecular Reaction under Solvent-Free Conditions, 1831
- Enantioselective Synthesis of (-)-(R)-Cordiachromene and (-)-(R)-Dictyochromenol Utilizing Intramolecular S_N Ar Reaction, 1946
- Secondary Amine-Catalyzed Asymmetric γ -Alkylation of α -Branched Enals via Dienamine Activation, 1985 Perfluorinated Bis(dihydrooxazole) Complexes Immobilized on Fluorous Reversed-Phase Silica Gel as
- Recyclable Catalysts for Enantioselective *Diels-Alder* Reactions, 2072 Enantioselective Solid-Phase Peptide Synthesis Using Traceless Chiral Coupling Reagents and Racemic
- Amino Acids, 2084 Catalytic Enantioselective Synthesis of a 3-Aryl-3-benzyloxindole (=3-Aryl-3-benzyl-1,3-dihydro-2*H*-indol-
- 2-one) Exhibiting Antitumor Activity, 2287
- Enantioselective Michael Addition of the 2-(1-Ethylpropoxy)acetaldehyde to N-[(1Z)-2-Nitroethenyl]acetamide – Optimization of the Key Step in the Organocatalytic Oseltamivir Synthesis, 2421
- Synthesis of Enantiomerically Pure Isoxazolidine Monomers for the Preparation of β^3 -Oligopeptides by Iterative α -Keto Acid–Hydroxylamine (KAHA) Ligations, 2481

Endoperoxides

Synthesis and Antimalarial-Activity Evaluation of Tetraoxane–Triazine Hybrids and Spiro[piperidine-4,3'-tetraoxanes], 1181

Enniatin

Cyclohexadepsipeptides from the Filamentous Fungus Acremonium sp. BCC 2629, 963

Enol ethers

1,2-Bis(trifluoromethyl)ethene-1,2-dicarbonitrile: Enol Ethers and Ketene Acetals as Cycloaddition Partners, 1049

Enones, cyclic

Photocyclodimers of 'Made-to-Measure' Seven- and Six-Membered Cyclic Enones, 423

Enzyme kinetics

Synthesis and Characterization of Enantiomerically Pure *cis*- and *trans*-3-Fluoro-2,4-dioxa-7-aza-3-phosphadecalin 3-Oxides as Acetylcholine Mimetics and Inhibitors of Acetylcholinesterase, 716

13-Epiloxocalyxin A

Terpenoids from Loxocalyx urticifolius, 1136

Epoxidation

Syntheses of Racemic and Scalemic *cis*-Chrysanthemic Acid from β , γ -Unsaturated Cyclohexanol, 2123

6,7-Epoxyverdine

Three New Pregnane Alkaloids from Veratrum taliense, 1114

Equisetum hiemale

Three New Sucrose Fatty Acid Esters from Equisetum hiemale L., 1158

Eremosides A – C

Eremosides A-C, New Iridoid Glucosides from Eremostachys loasifolia, 586

Eremostachys loasifolia

Eremosides A-C, New Iridoid Glucosides from Eremostachys loasifolia, 586

Ergostane derivatives

Highly Conjugated Ergostane-Type Steroids and Aranotin-Type Diketopiperazines from the Fungus Aspergillus terreus BCC 4651, 308

Erigeron bonariensis

Two New Octulosonic Acid Derivatives and a New Cyclohexanecarboxylic Acid Derivative from *Erigeron* bonariensis L., 1613

Essential oils

Chemical Composition of the Volatile Oil from the Roots of Selinum tenuifolium WALL., 780

Esters

A Hydrogen Chloride-Free Pinner Reaction Promoted by Lewis Acids, 1851

Ethene-1,2-dicarbonitrile, 1,2-bis(trifluoromethyl)-

1,2-Bis(trifluoromethyl)ethene-1,2-dicarbonitrile and Vinyl Ethers: Cyclic Ketene Imines on the Pathway to 1:2 Cycloadducts, 673

1,2-Bis(trifluoromethyl)ethene-1,2-dicarbonitrile: Enol Ethers and Ketene Acetals as Cycloaddition Partners, 1049

Ethenyl ethers

1,2-Bis(trifluoromethyl)ethene-1,2-dicarbonitrile: (2+2) Cycloadditions with Vinyl Ethers, 1

Eupatorium lindleyanum

Six New Sesquiterpenes from Eupatorium lindleyanum, 1637

Euphorbia yinshanica

Bisyinshanic Acids A and B, Two Novel Diterpene Dimers from the Roots of *Euphorbia yinshanica*, 1672 **Eurotechinulin B, 12-demethyl-12-oxo-**

Alkaloid and Anthraquinone Derivatives Produced by the Marine-Derived Endophytic Fungus *Eurotium rubrum*, 163

Eurotium rubrum

Alkaloid and Anthraquinone Derivatives Produced by the Marine-Derived Endophytic Fungus *Eurotium rubrum*, 163

Eutypella scoparia

Two New Sesquiterpenes from the Marine Fungus *Eutypella scoparia* FS26 from the South China Sea, 157 *Exaltone*®

Exaltone[®] (=Cyclopentadecanone) from Isomuscone[®] (=Cyclohexadecanone), a One-C-Atom Ring-Contraction Methodology via a Stereospecific Favorskii Rearrangement: Regioselective Application to (-)-(R)-Muscone, 428

Farnesanes

Two New Sesquiterpenes from the Marine Fungus *Eutypella scoparia* FS26 from the South China Sea, 157 Fatty acid esters

Three New Sucrose Fatty Acid Esters from Equisetum hiemale L., 1158

Favorskii rearrangement

 $Exaltone^{\otimes}$ (=Cyclopentadecanone) from $Isomuscone^{\otimes}$ (=Cyclohexadecanone), a One-C-Atom Ring-Contraction Methodology *via* a Stereospecific *Favorskii* Rearrangement: Regioselective Application to (-)-(R)-Muscone, 428

Feist's acid

Synthesis of Some C_2 -Symmetric Bidentate Ligands and Their Complexes Derived from *Feist*'s Acid, 268 Fentanyl analogs

Designing and Synthesis of Novel Amidated Fentanyl Analogs, 818

Ferrocene, acryloyl-

Ultrasound-Assisted Synthesis of 3-(Arylamino)-1-ferrocenylpropan-1-ones, 1425

FK866

Synthesis of a C-Iminoribofuranoside Analog of the Nicotinamide Phosphoribosyltransferase (NAMPT) Inhibitor FK866, 34

Flammulina velutipes

Four New Cuparene-Type Sesquiterpenes from Flammulina velutipes, 261

Flamvelutpenoids A – D

Four New Cuparene-Type Sesquiterpenes from Flammulina velutipes, 261

Flavone, 3,6,7,8,2',5'-hexamethoxy-

Identification of Three New Flavonoids from the Peels of Citrus unshiu, 240

Flavonoids

Identification of Three New Flavonoids from the Peels of Citrus unshiu, 240

A New Cyclopeptide and Other Constituents from the Leaves of Zanthoxylum rigidum HUMB. & BONPL. ex WILLD. (Rutaceae), 935

Flavonol glycosides

A New Prenylated Isoflavone and a New Flavonol Glycoside from *Flemingia philippinensis*, 598 *Flemingia philippinensis*

A New Prenylated Isoflavone and a New Flavonol Glycoside from *Flemingia philippinensis*, 598 **Flemiphilippinin G**

A New Prenylated Isoflavone and a New Flavonol Glycoside from Flemingia philippinensis, 598

Flemiphilippininside

A New Prenylated Isoflavone and a New Flavonol Glycoside from Flemingia philippinensis, 598

A Capture-and-Release Catalytic Flow System, 2578

Fluorescence

Efficient Synthesis of Novel Coumarin-3-carboxamides (=2-Oxo-2H-1-benzopyran-3-carboxamides) Containing Lipophilic Spacers, 528

Verification and Biophysical Characterization of a New Three-Color Förster Resonance-Energy-Transfer (FRET) System in DNA, 543

Improved Synthesis of Indirubin Derivatives by Sequential Build-Up of the Indoxyl Unit: First Preparation of Fluorescent Indirubins, 1461

Two Novel Push-Pull Series of Benzothiazole-Based Dyes: Synthesis and Characterization, 1548

Synthesis of Azaaromatic-Borane Intramolecular Complexes by Palladium-Catalyzed Reaction of Azaaromatic Halides with Alkynyl(triaryl)borates, 2474

Fluorination

Substrate Range of the Titanium TADDOLate Catalyzed Asymmetric Fluorination of Activated Carbonyl Compounds, 353

Fluorine compounds

- Substrate Range of the Titanium TADDOLate Catalyzed Asymmetric Fluorination of Activated Carbonyl Compounds, 353
- Synthesis of Perfluoroalkyl-Substituted y-Lactones and 4,5-Dihydropyridazin-3(2H)-ones via Donor-Acceptor Cyclopropanes, 1818
- Nucleophilic Fluoroalkylation of α_{β} -Unsaturated Carbonyl Compounds with α -Fluorinated Sulfones: Investigation of the Reversibility of 1,2-Additions and the Formation of 1,4-Adducts, 2043
- Perfluorinated Bis(dihydrooxazole) Complexes Immobilized on Fluorous Reversed-Phase Silica Gel as Recyclable Catalysts for Enantioselective Diels-Alder Reactions, 2072

Fluorine as a Regiocontrol Element in the Ring Opening of Bicyclic Aziridiniums, 2265

Fluorine in Peptides: The Synthesis of α -Fluoro- β -Amino Dipeptides by Direct Deoxofluorination/ Rearrangement of N-Seryl Dipeptides, 2331

A Study on the Diastereoselective Synthesis of α -Fluorinated β^3 -Amino Acids by α -Fluorination, 2460 Fluoroalkylation

Nucleophilic Fluoroalkylation of α,β -Unsaturated Carbonyl Compounds with α -Fluorinated Sulfones: Investigation of the Reversibility of 1.2-Additions and the Formation of 1.4-Adducts, 2043

Fluorous reversed-phase silica gel

Perfluorinated Bis(dihydrooxazole) Complexes Immobilized on Fluorous Reversed-Phase Silica Gel as Recyclable Catalysts for Enantioselective Diels-Alder Reactions, 2072

Foldamers

Helical Structures of Bicyclic a-Amino Acid Homochiral Oligomers with the Stereogenic Centers at the Side-Chain Fused-Ring Junctions, 1694

Ab initio MO Theory - An Important Tool in Foldamer Research: Prediction of Helices in Oligomers of ω-Amino Acids, 2348

Formamides, N-(α-hydroxybenzyl)-

A Novel Catalyst-Free One-Pot Synthesis of Some New N-(α -Hydroxybenzyl)formamides by Treatment of 2,2-Dichloroaziridines with Dimethyl Sulfoxide and Water under Neutral Conditions, 1102

Förster resonance energy transfer (FRET) system

Verification and Biophysical Characterization of a New Three-Color Förster Resonance-Energy-Transfer (FRET) System in DNA, 543

Friedländer condensation

Novel Route to 4-(Adamantan-1-yl)quinoline Derivatives Based on the Friedländer Condensation, 1003 Fries rearrangement

Directed Metalation-Cross-Coupling Strategies. Total Syntheses of the Alleged and the Revised Phenanthrene Natural Product Gymnopusin, 2680

Fulvenes

Gold(I)-Catalyzed Cyclodehydration Enabled by the Triisopropylsilyl Group: A Synthetically Versatile Methodology, 1773

2734

Flow systems

Fungi

Two New Sesquiterpenes from the Marine Fungus Eutypella scoparia FS26 from the South China Sea, 157 Four New Cuparene-Type Sesquiterpenes from Flammulina velutipes, 261

Two New Octahydronaphthalene Derivatives from Trichoderma spirale, an Endophytic Fungus Derived from Aquilaria sinensis, 805

Cyclohexadepsipeptides from the Filamentous Fungus Acremonium sp. BCC 2629, 963

A Convergent Synthesis of a Twelve-Membered Macrolide Natural Product, (6R,12S)-6-Hydroxy-12-methyl-1-oxacyclododecane-2,5-dione, 1623

Fungicidal activity

Synthesis, Crystal Structures, and Fungicidal Activity of Novel 1,5-Diaryl-3-(glucopyranosyloxy)-1Hpyrazoles, 1645

Furan-2,5-dione, 3,4-dihydro-3-methylidene-

A Straightforward Synthesis of 2-[1-Alkyl-5,6-bis(alkoxycarbonyl)-1,2,3,4-tetrahydro-2-oxopyridin-3-yl]acetic Acid Derivatives via Domino Michael Addition-Cyclization Reaction, 858

Furans, dihydro-

Radical Cyclization Reactions via Manganese(III) Acetate Leading to 2-Thienyl-Substituted Dihydrofuran Compounds, 795

The Reactions of a-Ylidene (Vinylidene, Benzylidene, Styrylmethylidene) Bis[carbonyls] with Copper Mono/ Bis[carbonylcarbenoids], 1409

Gallic acid

Crystal Structure of a Hydrated Molecular 1:2 Complex of Nicotinamide Adenine Dinucleotide (NAD+) and Gallic Acid: Polar Alignment of the Phenolic Partner Molecules, 872

Gangliosides

A Novel Method for the Production of Glycosphingolipids, 67

Garcinia oblongifolia

Polyprenylated Xanthones and Benzophenones from the Bark of Garcinia oblongifolia, 1442 Garciniagifolone A

Polyprenylated Xanthones and Benzophenones from the Bark of Garcinia oblongifolia, 1442 gauche Effect

Fluorine as a Regiocontrol Element in the Ring Opening of Bicyclic Aziridiniums, 2265 Gentiana manshurica

New Iridoid and Secoiridoid Glucosides from the Roots of Gentiana manshurica, 1094 Germacranolides

Six New Sesquiterpenes from Eupatorium lindleyanum, 1637

Glass-crystal transformation

DL-Ribose Crystal Structures: the Glass-Crystal Transformation, 1687

Glucosides

Three New ent-Kaurane Diterpenoids from Siegesbeckia pubescens, 221

Eremosides A-C. New Iridoid Glucosides from Eremostachys loasifolia, 586

New Iridoid and Secoiridoid Glucosides from the Roots of Gentiana manshurica, 1094

3-O-Methylquercetin Glucosides from Ophioglossum pedunculosum and Inhibition of Lipopolysaccharide-Induced Nitric Oxide Production in RAW 264.7 Macrophages, 1586

Two New N-(O-Carbamoylglucopyranosyl)-N-dimethylansamitocins from Actinosynnema pretiosum, 1630 Synthesis, Crystal Structures, and Fungicidal Activity of Novel 1,5-Diaryl-3-(glucopyranosyloxy)-1Hpyrazoles, 1645

Glutamine

Synthesis of Functionalized Glutamine- and Asparagine-Type Peptoids - Scope and Limitations, 2237 Glycine

2-Amino-1,2,3,6-tetrahydro-6-oxocyclopenta[c]fluorene-2-carboxylic Acid (FlAib), a Completely Rigidified, Fluoren-9-one-Based a-Amino Acid, 2446

Glycolipids

Minimally Competent Lewis Acid Catalysts: Indium(III) and Bismuth(III) Salts Produce Rhamnosides (=6-Deoxymannosides) in High Yield and Purity, 2652

Glycosides

A New Triterpene and Phenolic Compounds from the Roots of Pteroxygonum giraldii, 127

New Secondary Metabolites from Asphodelus tenuifolius, 144

Two New Pentacyclic Triterpenoids from Centella asiatica, 255

A New Prenylated Isoflavone and a New Flavonol Glycoside from Flemingia philippinensis, 598

New Minor Spirostane Glycosides from Ypsilandra thibetica, 1087

Three New Sucrose Fatty Acid Esters from Equisetum hiemale L., 1158

Two Unusual Methylidenecyclopropane Glucosides from Metaxya rostrata C.PRESL, 1531

Minimally Competent Lewis Acid Catalysts: Indium(III) and Bismuth(III) Salts Produce Rhamnosides (=6-Deoxymannosides) in High Yield and Purity, 2652

Glycosmis pentaphylla

Alkaloids from the Stems of Glycosmis pentaphylla, 1449

Glycosphingolipids

A Novel Method for the Production of Glycosphingolipids, 67

Glycosylation

Minimally Competent Lewis Acid Catalysts: Indium(III) and Bismuth(III) Salts Produce Rhamnosides (=6-Deoxymannosides) in High Yield and Purity, 2652

Gold catalysis

Gold(I)-Catalyzed Cyclodehydration Enabled by the Triisopropylsilyl Group: A Synthetically Versatile Methodology, 1773

Goupiolone

Synthesis and Structure Revision of Goupiolone A: A Benzotropolone Natural Product, 2194

Gramicidin S

Ring-Extended Gramicidin S Analogs Containing cis δ-Sugar Amino Acid Turn Mimetics with Varying Ring Size, 2544

Green chemistry

Crystal Structure of a Hydrated Molecular 1:2 Complex of Nicotinamide Adenine Dinucleotide (NAD+) and Gallic Acid: Polar Alignment of the Phenolic Partner Molecules, 872

Growth kinetics

Room Temperature Synthesis and Size Control of HKUST-1, 2278

Gymnopusin

Directed Metalation-Cross-Coupling Strategies. Total Syntheses of the Alleged and the Revised Phenanthrene Natural Product Gymnopusin, 2680

Haedoxan J

Lignans from Phryma leptostachya L., 333

Hairpin

Validation of the GROMOS 54A7 Force Field Regarding Mixed α/β-Peptide Molecules, 2562 y-Halocarbanions

Intermolecular Reactions of γ -Halocarbanions – Stepwise Analogs of 1,3-Dipolar Cycloaddition, 1871 Havashi catalyst

1,2-Oxazine N-Oxides as Catalyst Resting States in Michael Additions of Aldehydes to Nitro Olefins Organocatalyzed by a,a-Diphenylprolinol Trimethylsilyl Ether. Preliminary Communication, 1064

Heck reaction

Interfacially Cross-Linked Reverse Micelles as Soluble Support for Palladium Nanoparticle Catalysts, 863 Mizoroki-Heck and Sonogashira Cross-Couplings Catalyzed by CNC Palladium Pincer Complexes in Organic and Aqueous Media, 955

Hedione[®]

The Jubilee of Methyl Jasmonate and Hedione®, 1479

Helical structures

Helical Structures of Bicyclic a-Amino Acid Homochiral Oligomers with the Stereogenic Centers at the Side-Chain Fused-Ring Junctions, 1694

Helices

Ab initio MO Theory – An Important Tool in Foldamer Research: Prediction of Helices in Oligomers of ω-Amino Acids, 2348

Validation of the GROMOS 54A7 Force Field Regarding Mixed α/β-Peptide Molecules, 2562 Hepatoprotective activity

New Quinic Acid Derivatives from Hepatoprotective Inula crithmoides Root Extract, 61

Heptalene-4,5-dicarboxylates, dimethyl

A New Alkylation Method for Heptalene-4,5-dicarboxylates and of One of Their Pseudoester Forms, 885 Heptanoid, diaryl-

The First Stereoselective Total Synthesis of a Naturally Occurring Bioactive Diarylheptanoid, (3R,6E)-1,7-Bis(4-hydroxyphenyl)hept-6-en-3-ol, through Two Different Approaches, 1666

Heterobetaines

Novel Synthesis of 2-Alkylquinolizinium-1-olates and Their 1,3-Dipolar Cycloaddition Reactions with Acetylenes, 737

Heterocycles, fluorinated

Synthesis of Perfluoroalkyl-Substituted y-Lactones and 4,5-Dihydropyridazin-3(2H)-ones via Donor-Acceptor Cyclopropanes, 1818

Hibiscus tiliaceus

Alkaloid and Anthraquinone Derivatives Produced by the Marine-Derived Endophytic Fungus Eurotium rubrum, 163

Hinckdentine A

Asymmetric Proline-Catalyzed Addition of Aldehydes to 3H-Indol-3-ones: Enantioselective Synthesis of 2,3-Dihydro-1H-indol-3-ones with Quaternary Stereogenic Centers, 2296

HKUST-1

Room Temperature Synthesis and Size Control of HKUST-1, 2278

γ-Homoacetylcholine

Synthesis and Characterization of Enantiomerically Pure cis- and trans-3-Fluoro-2,4-dioxa-8-aza-3-phosphadecalin 3-Oxides as γ -Homoacetylcholine Mimetics and Inhibitors of Acetylcholinesterase, 17

Homoflavones

Identification of Three New Flavonoids from the Peels of Citrus unshiu, 240

HOMO-LUMO Interaction

Synthesis of 1H,7H,12bH-Pyrano[3',4':5,6]pyrano[3,4-c][1]benzopyran-1-one via Domino Knoevenagel/ Hetero-Diels-Alder Reaction with Theoretical Investigations, 52

Horner-Wadsworth-Emmons reaction

Highly Concise and Stereoselective Total Synthesis of (5R,7S)-Kurzilactone, 1226

Huisgen cycloaddition

Click Synthesis' of Some Novel O-Substituted Oximes Containing 1,2,3-Triazole-1,4-diyl Residues as New Analogs of β -Adrenoceptor Antagonists, 491

Synthesis and Anti-HIV Activity of Triazolo-Fused 3',5'-Cyclic Nucleoside Analogues Derived from an Intramolecular Huisgen 1,3-Dipolar Cycloaddition, 772

Hydantoins

A Manifold Three-Step Synthetic Route to Polycyclic Annulated Hydantoins via Cyclic Imines, 1857 Hydrazides

Synthesis of Bis-Heterocyclic 1H-Imidazole 3-Oxides from 3-Oxido-1H-imidazole-4-carbohydrazides, 404 Hydrogen bonds

Preparation and Characterization of New C2- and C1-Symmetric Nitrogen, Oxygen, Phosphorous, and Sulfur Derivatives and Analogs of TADDOL. Part III. Some New Chiral Brønsted Acids for Organocatalysis and pKa Values in MeO-(CH2)2-OH/H2O - A Survey, 1303

Validation of the GROMOS 54A7 Force Field Regarding Mixed α/β -Peptide Molecules, 2562

Hvdrogenase

{1,1'-(Dimethylsilylene)bis[methanechalcogenolato]}diiron Complexes [2Fe2E(Si)] (E=S, Se, Te) - [FeFe] Hydrogenase Models, 2168

Hydrogenation, asymmetric

Chiral Proline-Based P,O and P,N Ligands for Iridium-Catalyzed Asymmetric Hydrogenation, 2176 Hydroxylamine

Synthesis of Enantiomerically Pure Isoxazolidine Monomers for the Preparation of β^3 -Oligopeptides by Iterative α-Keto Acid-Hydroxylamine (KAHA) Ligations, 2481

Hype in publication

On Hype, Malpractice, and Scientific Misconduct in Organic Synthesis, 2052

1H-Imidazole 3-oxides

Synthesis of Bis-Heterocyclic 1H-Imidazole 3-Oxides from 3-Oxido-1H-imidazole-4-carbohydrazides, 404 Unexpected Course of the Reaction of 2-Unsubstituted 1H-Imidazole 3-Oxides with Ethyl Acrylate, 577 1H-Imidazole-4-carbohydrazides, 3-oxido-

Synthesis of Bis-Heterocyclic 1H-Imidazole 3-Oxides from 3-Oxido-1H-imidazole-4-carbohydrazides, 404 1H-Imidazoles, (caranylsulfanyl)-

Synthesis and Asymmetric Oxidation of (Caranylsulfanyl)-1H-imidazoles, 940

Imidazo[1,2-a]pyrimidines

Synthesis of Novel Disubstituted Pyrazolo[1,5-a]pyrimidines, Imidazo[1,2-a]pyrimidines, and Pyrimido[1,2a]benzimidazoles Containing Thioether and Aryl Moieties, 989

Imines

A Manifold Three-Step Synthetic Route to Polycyclic Annulated Hydantoins via Cyclic Imines, 1857 Immobilization

Perfluorinated Bis(dihydrooxazole) Complexes Immobilized on Fluorous Reversed-Phase Silica Gel as Recyclable Catalysts for Enantioselective Diels-Alder Reactions, 2072

Indan-1,2,3-trione

A Convenient Synthesis of Functionalized Indenopyrazolones from Indan-1,2,3-trione, Benzaldehydes, and Phenylhydrazine, 1581

Indenes

Gold(I)-Catalyzed Cyclodehydration Enabled by the Triisopropylsilyl Group: A Synthetically Versatile Methodology, 1773

1H-Inden-1-ones

Regioselective Arylation and Alkynylation of 2,3-Dibromo-1H-inden-1-one by Suzuki-Miyaura and Sonogashira Cross-Coupling Reactions, 469

Indenopyrazolones

A Convenient Synthesis of Functionalized Indenopyrazolones from Indan-1,2,3-trione, Benzaldehydes, and Phenvlhydrazine, 1581

Indirubin derivatives

Improved Synthesis of Indirubin Derivatives by Sequential Build-Up of the Indoxyl Unit: First Preparation of Fluorescent Indirubins, 1461

Indol-2-acetaldehyde

Asymmetric Proline-Catalyzed Addition of Aldehydes to 3H-Indol-3-ones: Enantioselective Synthesis of 2,3-Dihydro-1H-indol-3-ones with Quaternary Stereogenic Centers, 2296

Indolin-2-one derivative

Catalytic Enantioselective Synthesis of a 3-Aryl-3-benzyloxindole (=3-Aryl-3-benzyl-1,3-dihydro-2H-indol-2-one) Exhibiting Antitumor Activity, 2287

Inhibitors

Synthesis and Characterization of Enantiomerically Pure cis- and trans-3-Fluoro-2,4-dioxa-8-aza-3-phosphadecalin 3-Oxides as γ -Homoacetylcholine Mimetics and Inhibitors of Acetylcholinesterase, 17

Synthesis of a C-Iminoribofuranoside Analog of the Nicotinamide Phosphoribosyltransferase (NAMPT) Inhibitor FK866, 34

Design and Synthesis of Some Novel 2,3,4,5-Tetrahydro-1H-pyrido[4,3-b]indoles as Potential c-Met Inhibitors, 320

Synthesis and Characterization of Enantiomerically Pure cis- and trans-3-Fluoro-2,4-dioxa-7-aza-3-phosphadecalin 3-Oxides as Acetylcholine Mimetics and Inhibitors of Acetylcholinesterase, 716

3-O-Methylquercetin Glucosides from Ophioglossum pedunculosum and Inhibition of Lipopolysaccharide-Induced Nitric Oxide Production in RAW 264.7 Macrophages, 1586

D-chiro-Inositol

Application of D-chiro-Inositol as a Chiral Template for the Diels-Alder Reaction, 2026 Integrity in synthesis

On Hype, Malpractice, and Scientific Misconduct in Organic Synthesis, 2052

Intramolecular S_NAr reaction

Enantioselective Synthesis of (-)-(R)-Cordiachromene and (-)-(R)-Dictyochromenol Utilizing Intramolecular S_NAr Reaction, 1946

Inula crithmoides

New Quinic Acid Derivatives from Hepatoprotective Inula crithmoides Root Extract, 61

Ion pair acidity

A Comparison of Density-Functional Theory and Hartree-Fock Modeling of Organolithium Equilibria, 1976 Ionic liquids

1,4-Dipolar Cycloaddition Reactions in Ionic Liquids: A Facile Synthesis of 9aH,15H-[1]Benzopyrano[3',2': 3,4]pyrido[2,1-a]isoquinolines (=9aH,15H-Benzo[a][1]benzopyrano[2,3-h]quinolizines), 76

Iridium complexes

Chiral Proline-Based P,O and P,N Ligands for Iridium-Catalyzed Asymmetric Hydrogenation, 2176

Iridoid glucosides

Eremosides A-C, New Iridoid Glucosides from Eremostachys loasifolia, 586

New Iridoid and Secoiridoid Glucosides from the Roots of Gentiana manshurica, 1094

Iris dichotoma

Three New Phenol Compounds from Iris dichotoma PALL., 1033

Irisdichototins D-F

Three New Phenol Compounds from Iris dichotoma PALL., 1033

Iron complexes

Trinuclear Non-Heme Iron Complexes Based on 4-Substituted 2,6-Diacylpyridine Ligands as Catalysts in Aerobic Allylic Oxidations, 197

{1,1'-(Dimethylsilylene)bis[methanechalcogenolato]}diiron Complexes [2Fe2E(Si)] (E = S, Se, Te) - [FeFe] Hydrogenase Models, 2168

Isatis tinctoria

Improved Synthesis of Indirubin Derivatives by Sequential Build-Up of the Indoxyl Unit: First Preparation of Fluorescent Indirubins, 1461

Isoandrographolide

Diastereoisomeric ent-Labdane Diterpenoids from Andrographis paniculata, 120

Isocoumarins, 3,4-dihydro-

One-Pot Synthesis of 4-Substituted 3,4-Dihydro-3-methoxyisocoumarins via Carboxylation of a-Substituted 2-Lithio- β -methoxystyrenes with Carbon Dioxide, 191

Isocyanides

Isocyanide-Based Three-Component Synthesis of Highly Substituted 1,6-Dihydro-6,6-dimethylpyrazine-2,3dicarbonitrile, 3,4-Dihydrobenzo[g]quinoxalin-2-amine, and 3,4-Dihydro-3,3-dimethyl-quinoxalin-2-amine Derivatives, 246

Synthesis of 1,5-Disubstituted 1H-Tetrazole Derivatives via a Three-Component Reaction of Carbodiimides, Isocyanides, and Trimethylsilyl Azide, 594

Isodesmic equation

A Comparison of Density-Functional Theory and Hartree-Fock Modeling of Organolithium Equilibria, 1976 Isodon iaponicus

Two New Diterpenoids and Other Constituents from Isodon japonicus, 1175

Isoflavonoids

A New Prenylated Isoflavone and a New Flavonol Glycoside from Flemingia philippinensis, 598

Isoindoline-1,3-diimine

Multicomponent Transformation of Isoindoline-1,3-diimine (=1H-Isoindole-1,3(2H)-diimine), Acetylenic Esters, and Triphenylphosphine to Novel Dihydropyrimido[2,1-a]isoindole Derivatives, 185

Isosteviol

Isosteviol-Proline Conjugates as Highly Efficient Amphiphilic Organocatalysts for Asymmetric Three-Component Mannich Reactions in the Presence of Water, 43

Isothiocyanates, 2-lithiophenyl

A Convenient Synthesis of 2-Sulfanylbenzoselenazole Derivatives via the Reaction of 2-Lithiophenyl Isothiocyanates with Selenium, 761

2-Isothiocyanatophenyl ketones

One-Pot Synthesis of 1,4-Dihydro-2-thioxo-2*H*-3,1-benzoxazine-4-acetic Acid Derivatives by the Reaction of 2-Isothiocyanatophenyl Ketones with Lithium Enolates of Acetates and Tertiary Acetamides, 1561

Isotope labeling

Preparation of Isotope Labeled/Unlabeled Key Intermediates in 2-Methyl-D-erythritol 4-Phosphate Terpenoid Biosynthetic Pathway, 683

Isoxazolidine

Synthesis of Enantiomerically Pure Isoxazolidine Monomers for the Preparation of β^3 -Oligopeptides by Iterative *a*-Keto Acid–Hydroxylamine (KAHA) Ligations, 2481

Itaconic anhydride

A Novel and Efficient Synthesis of Pyrido[1,2-a]-Fused 1,3-Diazaheterocyclic Compounds via a One-Pot Three-Component Reaction, 152

A Straightforward Synthesis of 2-[1-Alkyl-5,6-bis(alkoxycarbonyl)-1,2,3,4-tetrahydro-2-oxopyridin-3-yl]acetic Acid Derivatives via Domino Michael Addition–Cyclization Reaction, 858

Jacobsen's kinetic resolution

Highly Concise and Stereoselective Total Synthesis of (5*R*,7*S*)-Kurzilactone, 1226 Total Synthesis of Umuravumbolide, 1593

Johnson-Corev-Chavkovsky annulations

(2-Bromoethyl)sulfonium Trifluoromethanesulfonates in Stereoselective Annulation Reactions for the Formation of Fused Bicyclic Epoxides and Aziridines, 2384

ent-Kaurane diterpenoids

Two New Diterpenoids and Other Constituents from *Isodon japonicus*, 1175 *ent*-Kaurane glucopyranosides

These New Verses

Three New ent-Kaurane Diterpenoids from Siegesbeckia pubescens, 221

Kempster–Lipson Law

Deviation of the Kempster-Lipson Law from Linearity, 1202

Ketene acetals

1,2-Bis(trifluoromethyl)ethene-1,2-dicarbonitrile: Enol Ethers and Ketene Acetals as Cycloaddition Partners, 1049

Ketene dithioacetals, nitro-

A Novel and Efficient Synthesis of Pyrido[1,2-a]-Fused 1,3-Diazaheterocyclic Compounds via a One-Pot Three-Component Reaction, 152

Ketene imines

1,2-Bis(trifluoromethyl)ethene-1,2-dicarbonitrile and Vinyl Ethers: Cyclic Ketene Imines on the Pathway to 1:2 Cycloadducts, 673

Ketenes

Preparation of Pseudo-Peptide Building Blocks with *retro*-Thioamide Bond Mediated *via* Thiocarbamoyl *Meldrum*'s Acid, 461

α-Keto acid

Synthesis of Enantiomerically Pure Isoxazolidine Monomers for the Preparation of β^3 -Oligopeptides by Iterative α -Keto Acid–Hydroxylamine (KAHA) Ligations, 2481

Ketones

Synthesis of Halogenated α,β -Unsaturated γ -Butyrolactone Derivatives by Triphenylphosphine-Catalyzed Cyclization of α -Halogeno Ketones with Dialkyl Acetylenedicarboxylates (=Dialkyl But-2-ynedioates), 810

Toward the Synthesis of Modified Carbohydrates by Conjugate Addition of Propane-1,3-dithiol to α , β -Unsaturated Ketones, 2099

Kinetic resolution

The First Stereoselective Total Synthesis of a Naturally Occurring Bioactive Diarylheptanoid, (3*R*,6*E*)-1,7-Bis(4-hydroxyphenyl)hept-6-en-3-ol, through Two Different Approaches, 1666

Kinetic Resolution of Racemic Secondary Benzylic Alcohols by the Enantioselective Esterification Using Pyridine-3-carboxylic Anhydride (3-PCA) with Chiral Acyl-Transfer Catalysts, 1891

Knoevenagel condensation

Rapid Synthesis of Novel and Known Coumarin-3-carboxylic Acids Using Stannous Chloride Dihydrate under Solvent-Free Conditions, 455

New Concise and Efficient Synthesis of Rubrolides C and E via Intramolecular Wittig Reaction, 852

An Efficient Synthesis of 3-(1H-Tetrazol-5-yl) coumarins (= 3-(1H-Tetrazol-5-yl)-2H-1-benzopyran-2-ones) via Domino Knoevenagel Condensation, Pinner Reaction, and 1,3-Dipolar Cycloaddition in Water, 1600 Knoevenagel/hetero-Diels-Alder reactions

Synthesis of 1H,7H,12bH-Pyrano[3',4':5,6]pyrano[3,4-c][1]benzopyran-1-one via Domino Knoevenagel/ Hetero-Diels-Alder Reaction with Theoretical Investigations, 52

Koser reagent

New Concise and Efficient Synthesis of Rubrolides C and E via Intramolecular Wittig Reaction, 852 (5R.7S)-Kurzilactone

Highly Concise and Stereoselective Total Synthesis of (5R,7S)-Kurzilactone, 1226

ent-Labdane diterpenoids

Diastereoisomeric ent-Labdane Diterpenoids from Andrographis paniculata, 120

Labdanes

New Labdane-Type Diterpenoids from Leonurus heterophyllus, 618

Lactams

A Novel Asymmetric Synthesis of 3-(1*H*-Pyrrol-1-yl)-Substituted β -Lactams via a Bismuth Nitrate-Catalyzed Reaction, 839

Mechanistic Investigation of the Ring Opening in the Staudinger Cycloaddition Involving Ketenes with Electron-Withdrawing Substituents, 1079

Diastereoselective Coupling of N-(tert-Butyl)sulfinyl Imines and Dimethyl Malonate. Synthesis of Enantiomerically Enriched β -Amino Esters and β -Lactams, 1790

Microwave-Assisted Synthesis of β -Lactams and Cyclo- β -dipeptides, 2218

Lactones

Some Aspects of the Chemistry of Nitro Compounds, 1730

Synthesis of Perfluoroalkyl-Substituted γ -Lactones and 4,5-Dihydropyridazin-3(2H)-ones via Donor-Acceptor Cyclopropanes, 1818

Lactonization

One-Pot Synthesis of 4-Substituted 3,4-Dihydro-3-methoxyisocoumarins via Carboxylation of a-Substituted 2-Lithio-β-methoxystyrenes with Carbon Dioxide, 191

Lanceolunes A-C

New Benzofuranylpropanoids from the Roots of Codonopsis lanceolata, 349

Lanostane-type triterpenoids

Highly Acetylated Lanostane-Type Triterpenoids from Coprinus cinereus 120, 282

Leonurus heterophyllus

New Labdane-Type Diterpenoids from Leonurus heterophyllus, 618

Lewis acids

Synthesis of 1H,7H,12bH-Pyrano[3',4':5,6]pyrano[3,4-c][1]benzopyran-1-one via Domino Knoevenagel/ Hetero-Diels-Alder Reaction with Theoretical Investigations, 52

A Hydrogen Chloride-Free Pinner Reaction Promoted by Lewis Acids, 1851

Minimally Competent Lewis Acid Catalysts: Indium(III) and Bismuth(III) Salts Produce Rhamnosides (=6-Deoxymannosides) in High Yield and Purity, 2652

Lewis Acid-Mediated Addition of Amino Acid-Substituted a-Allylsilanes to Aromatic Acetals, 2660 Ligand dynamics

Ligand Dynamics in the Solid: Lithium-fluorenide and Lithium-benzo[b]fluorenide N,N,N',N'-Tetramethyl-

ethylenediamine (tmeda) Complexes, 2317

Lignans

Lignans from Phryma leptostachya L., 333

A New Cyclopeptide and Other Constituents from the Leaves of Zanthoxylum rigidum HUMB. & BONPL. ex WILLD. (Rutaceae), 935

Lipids

A Novel Method for the Production of Glycosphingolipids, 67

Lithium benzo[*b*]fluorenide

Ligand Dynamics in the Solid: Lithium-fluorenide and Lithium-benzo[b]fluorenide N,N,N',N'-Tetramethylethylenediamine (tmeda) Complexes, 2317

Lithium complexes

Ligand Dynamics in the Solid: Lithium-fluorenide and Lithium-benzo[b]fluorenide N,N,N',N'-Tetramethylethylenediamine (tmeda) Complexes, 2317

Lithium compounds

A Convenient Synthesis of 2-Sulfanylbenzoselenazole Derivatives via the Reaction of 2-Lithiophenyl Isothiocyanates with Selenium, 761

Lithium enolates

One-Pot Synthesis of 1,4-Dihydro-2-thioxo-2H-3,1-benzoxazine-4-acetic Acid Derivatives by the Reaction of 2-Isothiocyanatophenyl Ketones with Lithium Enolates of Acetates and Tertiary Acetamides, 1561

Locked nucleic acid (LNA)

Improved DNA Clamps by Stacking to Adjacent Nucleobases, 1538

Lonicera japonica

Secoiridoid Sulfonates from the Sulfiting-Processed Buds of Lonicera japonica, 1144

Loxocalyx urticifolius

Terpenoids from Loxocalvx urticifolius, 1136

Loxocalyxins A-C

Terpenoids from Loxocalyx urticifolius, 1136

Luteolin 7-*O*-β-D-glucopyranoside

Flavonoid Constituents from Spiraea brahuica, 100

Macrolides

A Convergent Synthesis of a Twelve-Membered Macrolide Natural Product, (6R,12S)-6-Hydroxy-12-methyl-1-oxacyclododecane-2,5-dione, 1623

Malic acid

Asymmetric Syntheses of the Sex Pheromones of Pine Sawflies, Their Homologs and Stereoisomers, 1799 Malonic synthesis

Diastereoselective Coupling of N-(tert-Butyl)sulfinyl Imines and Dimethyl Malonate. Synthesis of Enantiomerically Enriched β -Amino Esters and β -Lactams, 1790

Malpractice in synthesis

On Hype, Malpractice, and Scientific Misconduct in Organic Synthesis, 2052

Manganese(III) acetate

Radical Cyclization Reactions via Manganese(III) Acetate Leading to 2-Thienyl-Substituted Dihydrofuran Compounds, 795

Manganese complexes

Cyano-Bridged 'Oximato' Complexes: Synthesis, Structure, and Catalase-Like Activities, 647

Mannich bases

Ultrasound-Assisted Synthesis of 3-(Arylamino)-1-ferrocenylpropan-1-ones, 1425

Mannich reaction

Isosteviol-Proline Conjugates as Highly Efficient Amphiphilic Organocatalysts for Asymmetric Three-Component Mannich Reactions in the Presence of Water, 43

Diastereoselective Coupling of N-(tert-Butyl)sulfinyl Imines and Dimethyl Malonate. Synthesis of Enantiomerically Enriched β -Amino Esters and β -Lactams, 1790

Asymmetric Proline-Catalyzed Addition of Aldehydes to 3H-Indol-3-ones: Enantioselective Synthesis of 2,3-Dihydro-1H-indol-3-ones with Quaternary Stereogenic Centers, 2296

Marine fungi

Two New Sesquiterpenes from the Marine Fungus Eutypella scoparia FS26 from the South China Sea, 157 Megastigm-5(13)-ene-2β-palmitate, 9-oxo-

A New Megastigmane Palmitate and a New Oleanane Triterpenoid from Aster yomena MAKINO, 1455 Meldrum's acid

Rapid Synthesis of Novel and Known Coumarin-3-carboxylic Acids Using Stannous Chloride Dihydrate under Solvent-Free Conditions, 455

Preparation of Pseudo-Peptide Building Blocks with retro-Thioamide Bond Mediated via Thiocarbamoyl Meldrum's Acid, 461

Melia toosendan

Triterpenoids from Melia toosendan, 286

MEP Pathway

Preparation of Isotope Labeled/Unlabeled Key Intermediates in 2-Methyl-D-erythritol 4-Phosphate Terpenoid Biosynthetic Pathway, 683

Mesendanins K-U

Triterpenoids from Melia toosendan, 286

Metalation

Directed Metalation-Cross-Coupling Strategies. Total Syntheses of the Alleged and the Revised Phenanthrene Natural Product Gymnopusin, 2680

Metallocryptates

Dynamic Phenomena in Self-Complementary {2}-Metallocryptates Probed by Solution ¹³³Cs-NMR. New Insights into Ion Pairing Processes: X-Ray Structure and Solid-State NMR Spectra of a Meandering Species, 2429

Metal-organic framework

Room Temperature Synthesis and Size Control of HKUST-1, 2278

Metasequirins G-I

Norlignans and Phenylpropanoids from Metasequoia glyptostroboides Hu et CHENG, 606 Metasequoia glyptostroboides

Norlignans and Phenylpropanoids from Metasequoia glyptostroboides Hu et CHENG, 606 Metaxva rostrata

Two Unusual Methylidenecyclopropane Glucosides from Metaxya rostrata C.PRESL, 1531 Methyl iasmonate

The Jubilee of Methyl Jasmonate and Hedione®, 1479

Methyl pothoscandensate

Methyl Pothoscandensate, a New ent- $18(4 \rightarrow 3)$ -Abeokaurane from Pothos scandens, 1231

2-Methyl-D-erythritol 4-phosphate (MEP)

Preparation of Isotope Labeled/Unlabeled Key Intermediates in 2-Methyl-D-erythritol 4-Phosphate Terpenoid Biosynthetic Pathway, 683

Micelles

Interfacially Cross-Linked Reverse Micelles as Soluble Support for Palladium Nanoparticle Catalysts, 863 Michael addition

- A New Alkylation Method for Heptalene-4,5-dicarboxylates and of One of Their Pseudoester Forms, 885 1,2-Oxazine N-Oxides as Catalyst Resting States in Michael Additions of Aldehydes to Nitro Olefins Organocatalyzed by α,α -Diphenylprolinol Trimethylsilyl Ether. Preliminary Communication, 1064
- Enantioselective Michael Addition of the 2-(1-Ethylpropoxy)acetaldehyde to N-[(1Z)-2-Nitroethenyl]acetamide - Optimization of the Key Step in the Organocatalytic Oseltamivir Synthesis, 2421

Microsolvation

A Comparison of Density-Functional Theory and Hartree-Fock Modeling of Organolithium Equilibria, 1976 **Microwave irradiation**

Microwave-Assisted Stereoselective 1,3-Dipolar Cycloaddition of C,N-Diarylnitrone (i.e., N-(Arylmethylidene)benzenamine N-Oxide) and Bis(arylmethylidene)acetone (=1,5-Diarylpenta-1,4-dien-3-one): NMR and Crystal Analysis of Diastereoisomeric Bis(isoxazolidines), 173

- An Efficient One-Pot Synthesis of Substituted 1H-Naphtho[2,1-b]pyrans and 4H-1-Benzopyrans (= Chromenes) under Solvent-Free Microwave-Irradiation Conditions, 502
- The First One-Pot, Solvent-Free, Microwave-Accelerated, Three-Component Synthesis of Spirothiazolidin-4ones via Staudinger/Aza-Wittig Coupling/Cyclization, 922

Microwave-Assisted Synthesis of β -Lactams and Cyclo- β -dipeptides, 2218

Molecular modeling

Improved DNA Clamps by Stacking to Adjacent Nucleobases, 1538

Molecular packing

Deviation of the Kempster-Lipson Law from Linearity, 1202

Molecular recognition

2,3,10,11-Tetrahydroxytetraphenylene and Its Application in Molecular Recognition, 2604

Molecular sieves

An Efficient One-Pot Synthesis of Substituted 1H-Naphtho[2,1-b]pyrans and 4H-1-Benzopyrans (= Chromenes) under Solvent-Free Microwave-Irradiation Conditions, 502

Molecular-dynamics calculations

Validation of the GROMOS 54A7 Force Field Regarding Mixed α/β -Peptide Molecules, 2562

Montmorillonite K-10

Ultrasound-Assisted Synthesis of 3-(Arylamino)-1-ferrocenylpropan-1-ones, 1425

Morita-Baylis-Hillman reaction

The Morita-Baylis-Hillman Reaction of Chiral Highly Oxygenated Cyclopent-2-enones, 1912

Mukaiyama aldol reaction

Highly Concise and Stereoselective Total Synthesis of (5R,7S)-Kurzilactone, 1226

Multicomponent reactions

- Isosteviol–Proline Conjugates as Highly Efficient Amphiphilic Organocatalysts for Asymmetric Three-Component *Mannich* Reactions in the Presence of Water, 43
- 1,4-Dipolar Cycloaddition Reactions in Ionic Liquids: A Facile Synthesis of 9a*H*,15*H*-[1]Benzopyrano[3',2': 3,4]pyrido[2,1-*a*]isoquinolines (=9a*H*,15*H*-Benzo[*a*][1]benzopyrano[2,3-*h*]quinolizines), 76
- A One-Pot Tandem Ugi Multicomponent Reaction (MCR)/Click Reaction as an Efficient Protecting-Group-Free Route to 1H-1,2,3-Triazole-Modified α-Amino Acid Derivatives and Peptidomimetics, 87
- Aluminium Nitrate Nonahydrate ($Al(NO_3)_3 \cdot 9 H_2O$): An Efficient Oxidant Catalyst for the One-Pot Synthesis of *Biginelli* Compounds from Benzyl Alcohols, 115
- A Novel and Efficient Synthesis of Pyrido[1,2-a]-Fused 1,3-Diazaheterocyclic Compounds via a One-Pot Three-Component Reaction, 152
- Multicomponent Transformation of Isoindoline-1,3-diimine (=1H-Isoindole-1,3(2H)-diimine), Acetylenic Esters, and Triphenylphosphine to Novel Dihydropyrimido[2,1-*a*]isoindole Derivatives, 185
- Isocyanide-Based Three-Component Synthesis of Highly Substituted 1,6-Dihydro-6,6-dimethylpyrazine-2,3-dicarbonitrile, 3,4-Dihydrobenzo[g]quinoxalin-2-amine, and 3,4-Dihydro-3,3-dimethyl-quinoxalin-2-amine Derivatives, 246
- One-Pot Synthesis of 4-(2,3-Dihydro-2-hydroxy-1,3-dioxo-1*H*-inden-2-yl)-Substituted 1-Aryl-1*H*-pyrazole-3carboxylates *via* a Tandem Three-Component Reaction, 278
- Efficient One-Pot Synthesis of Alkyl 2-(Dialkylamino)-4-phenylthiazole-5-carboxylates and Single-Crystal X-Ray Structure of Methyl 2-(Diisopropylamino)-4-phenylthiazole-5-carboxylate, 339
- Facile One-Pot Synthesis of Monosubstituted 1-Aryl-1*H*-1,2,3-triazoles from Arylboronic Acids and Prop-2ynoic Acid (= Propiolic Acid) or Calcium Acetylide (= Calcium Carbide) as Acetylene Source, 448
- Isocyanide-Based Five-Component Synthesis of 2-Aryl-2-(2,3,4,5-tetrahydro-2,4-dioxo-1*H*-1,5-benzodiazepin-3-yl)acetamides (=α-Aryl-2,3,4,5-tetrahydro-2,4-dioxo-1*H*-1,5-benzodiazepine-3-acetamides), 483
- An Efficient One-Pot Synthesis of Substituted 1H-Naphtho[2,1-b]pyrans and 4H-1-Benzopyrans (= Chromenes) under Solvent-Free Microwave-Irradiation Conditions, 502
- Efficient Synthesis of Novel Coumarin-3-carboxamides (=2-Oxo-2H-1-benzopyran-3-carboxamides) Containing Lipophilic Spacers, 528
- Synthesis of 1,5-Disubstituted 1*H*-Tetrazole Derivatives *via* a Three-Component Reaction of Carbodiimides, Isocyanides, and Trimethylsilyl Azide, 594
- One-Pot Four-Component Synthesis of N²-Alkyl-N³-[2-(1,3,4-oxadiazol-2-yl)aryl]benzofuran-2,3-diamines, 788

Designing and Synthesis of Novel Amidated Fentanyl Analogs, 818

- A Straightforward Synthesis of 2-[1-Alkyl-5,6-bis(alkoxycarbonyl)-1,2,3,4-tetrahydro-2-oxopyridin-3-yl]acetic Acid Derivatives via Domino Michael Addition–Cyclization Reaction, 858
- The First One-Pot, Solvent-Free, Microwave-Accelerated, Three-Component Synthesis of Spirothiazolidin-4ones via Staudinger/Aza-Wittig Coupling/Cyclization, 922
- Synthesis of 3,3-Disubstituted Oxindoles via a Three-Component Condensation Reaction in H2O, 1126
- A Convenient Synthesis of Functionalized Indenopyrazolones from Indan-1,2,3-trione, Benzaldehydes, and Phenylhydrazine, 1581
- A Manifold Three-Step Synthetic Route to Polycyclic Annulated Hydantoins via Cyclic Imines, 1857

2744

A One-Pot Organometallic Route from a 4-Alkenylpyridine to a 4,4-Spiro-Linked Ethyl 1,4-Dihydropyridine-1-carboxylate, 2063

(-)-(R)-Muscone

Exaltone® (=Cyclopentadecanone) from Isomuscone® (=Cyclohexadecanone), a One-C-Atom Ring-Contraction Methodology via a Stereospecific Favorskii Rearrangement: Regioselective Application to (-)-(R)-Muscone, 428

Myricetin glycosides

A New Triterpene and Phenolic Compounds from the Roots of Pteroxygonum giraldii, 127

NAD+-Gallic acid aggregate

Crystal Structure of a Hydrated Molecular 1:2 Complex of Nicotinamide Adenine Dinucleotide (NAD+) and Gallic Acid: Polar Alignment of the Phenolic Partner Molecules, 872

Naphthalenes

Cyclization of (2-Alkenylphenyl)carbonyl Compounds to Polycyclic Arenes Catalyzed by Copper(II) Trifluoromethanesulfonate or Trifluoromethanesulfuric Acid, 1953

1H-Naphtho[2,1-b]pyrans

An Efficient One-Pot Synthesis of Substituted 1H-Naphtho[2,1-b]pyrans and 4H-1-Benzopyrans (=Chromenes) under Solvent-Free Microwave-Irradiation Conditions, 502

1,7-Naphthyridine-2(1H)-thiones

Synthesis of 4-Aryl-1,7-naphthyridine-2(1H)-thiones by the Electrocyclic Reaction of 4-(1-Arylalk-1-enyl)-3isothiocyanatopyridines Generated in situ from the Corresponding Isocyanides, 556

Nef isocyanide

Synthesis of Functionalized Pyrazines and Quinoxalines from Nef-Isocyanide Adducts and 1,2-Diamines, 169 Neolignans

Two New Neolignans from the Stems of Syringa pinnatifolia HEMSL. var. alashanensis, 1680

Nickel complexes

Alkylations of Chiral Nickel(II) Complexes of Glycine under Phase-Transfer Conditions, 2672

Nicotinamide adenine dinucleotide (NAD⁺)

Crystal Structure of a Hydrated Molecular 1:2 Complex of Nicotinamide Adenine Dinucleotide (NAD⁺) and Gallic Acid: Polar Alignment of the Phenolic Partner Molecules, 872

Nicotinamide phosphoribosyltransferase

Synthesis of a C-Iminoribofuranoside Analog of the Nicotinamide Phosphoribosyltransferase (NAMPT) Inhibitor FK866, 34

Nicotinium dichromate

Nicotinium Dichromate (=3-Carboxypyridinium Dichromate; NDC) as an Efficient Reagent for the Oxidative Deamination of Amines and Aminophosphonates, 613

Nitric oxide

Abieseconordines A and B, Two Novel Norditerpenoids with a 18-Nor-5,10:9,10-disecoabietane Skeleton from Abies forrestii, 415

Nitro compounds

Some Aspects of the Chemistry of Nitro Compounds, 1730

Nitro olefins

1,2-Oxazine N-Oxides as Catalyst Resting States in Michael Additions of Aldehydes to Nitro Olefins Organocatalyzed by α,α -Diphenylprolinol Trimethylsilyl Ether. Preliminary Communication, 1064 Nitrogen heterocycles

Fluorine as a Regiocontrol Element in the Ring Opening of Bicyclic Aziridiniums, 2265

Nitrones

Microwave-Assisted Stereoselective 1,3-Dipolar Cycloaddition of C,N-Diarylnitrone (i.e., N-(Arylmethylidene)benzenamine N-Oxide) and Bis(arylmethylidene)acetone (=1,5-Diarylpenta-1,4-dien-3-one): NMR and Crystal Analysis of Diastereoisomeric Bis(isoxazolidines), 173

NMR Spectroscopy

Ligand Dynamics in the Solid: Lithium-fluorenide and Lithium-benzo[b]fluorenide N,N,N',N'-Tetramethylethylenediamine (tmeda) Complexes, 2317

Dynamic Phenomena in Self-Complementary [2]-Metallocryptates Probed by Solution ¹³³Cs-NMR. New Insights into Ion Pairing Processes: X-Ray Structure and Solid-State NMR Spectra of a Meandering Species, 2429

Nona-3,5-diyne

Chemical Composition of the Volatile Oil from the Roots of Selinum tenuifolium WALL., 780

Norlabdanes

X-Ray Structure Study of an Unusual 13,14,15,16-Tetranorlabdane Derivative Obtained in the Synthesis of (7α)-7,8-Dihydroxy-14,15-dinorlabdane-11,13-dione, 825

Norlignans

Norlignans and Phenylpropanoids from Metasequoia glyptostroboides HU et CHENG, 606

30-Nortriterpenoid saponins

A New 30-Noroleanane Saponin from Wedelia chinensis, 1395

Nuclear Overhauser effect (NOE)

Validation of the GROMOS 54A7 Force Field Regarding Mixed α/β -Peptide Molecules, 2562

Nucleopeptides

Design and Synthesis of Nucleoproline Amino Acids for the Straightforward Preparation of Chiral and Conformationally Constrained Nucleopeptides, 2621

Nucleophilic fluoroalkylation

Nucleophilic Fluoroalkylation of α,β -Unsaturated Carbonyl Compounds with α -Fluorinated Sulfones: Investigation of the Reversibility of 1,2-Additions and the Formation of 1,4-Adducts, 2043

Nucleosides

Synthesis and Anti-HIV Activity of Triazolo-Fused 3',5'-Cyclic Nucleoside Analogues Derived from an Intramolecular *Huisgen* 1,3-Dipolar Cycloaddition, 772

Synthesis of 3',5'-Cyclic Phosphate and Thiophosphate Esters of 2'-C-Methyl Ribonucleosides, 1512

Oblongifolixanthone A

Polyprenylated Xanthones and Benzophenones from the Bark of *Garcinia oblongifolia*, 1442 **Octulosonic acid**

Two New Octulosonic Acid Derivatives and a New Cyclohexanecarboxylic Acid Derivative from *Erigeron* bonariensis L., 1613

Olean-12-en-11-one, 3β,23,28-trihydroxy-

A New Megastigmane Palmitate and a New Oleanane Triterpenoid from *Aster yomena* MAKINO, 1455 **Oligomers, homochiral**

Helical Structures of Bicyclic a-Amino Acid Homochiral Oligomers with the Stereogenic Centers at the Side-Chain Fused-Ring Junctions, 1694

Oligonucleotides

Improved DNA Clamps by Stacking to Adjacent Nucleobases, 1538

Ophioglossum pedunculosum

3-O-Methylquercetin Glucosides from Ophioglossum pedunculosum and Inhibition of Lipopolysaccharide-Induced Nitric Oxide Production in RAW 264.7 Macrophages, 1586

Optimization

On Hype, Malpractice, and Scientific Misconduct in Organic Synthesis, 2052

Organocatalysis

Isosteviol–Proline Conjugates as Highly Efficient Amphiphilic Organocatalysts for Asymmetric Three-Component *Mannich* Reactions in the Presence of Water, 43

1,2-Oxazine N-Oxides as Catalyst Resting States in *Michael* Additions of Aldehydes to Nitro Olefins Organocatalyzed by α, α -Diphenylprolinol Trimethylsilyl Ether. Preliminary Communication, 1064

Preparation and Characterization of New C₂- and C₁-Symmetric Nitrogen, Oxygen, Phosphorous, and Sulfur Derivatives and Analogs of TADDOL. Part III. Some New Chiral Brønsted Acids for Organocatalysis and pK_a Values in MeO-(CH₂)₂-OH/H₂O – A Survey, 1303

Cross-Linked-Polymer-Supported N-{2'-[(Arylsulfonyl)amino][1,1'-binaphthalen]-2-yl}prolinamide as Organocatalyst for the Direct Aldol Intermolecular Reaction under Solvent-Free Conditions, 1831

Secondary Amine-Catalyzed Asymmetric γ-Alkylation of α-Branched Enals via Dienamine Activation, 1985 Enantioselective Michael Addition of the 2-(1-Ethylpropoxy)acetaldehyde to N-[(1Z)-2-Nitroethenyl]acetamide – Optimization of the Key Step in the Organocatalytic Oseltamivir Synthesis, 2421 Organocatalysis of C=N/C=N and C=C/C=N Exchange in Dynamic Covalent Chemistry, 2635 **Organolithium compounds**

Organontinum compounds

Ligand Dynamics in the Solid: Lithium-fluorenide and Lithium-benzo[b]fluorenide N,N,N',N'-Tetramethylethylenediamine (tmeda) Complexes, 2317

Oseltamivir

Enantioselective *Michael* Addition of the 2-(1-Ethylpropoxy)acetaldehyde to *N*-[(1Z)-2-Nitroethenyl]acetamide – Optimization of the Key Step in the Organocatalytic Oseltamivir Synthesis, 2421

Oxathioloquinolinediones

Modified Riemschneider Reaction of 3-Thiocyanatoquinolinediones, 1352

1,2-Oxazine N-oxides

1,2-Oxazine N-Oxides as Catalyst Resting States in *Michael* Additions of Aldehydes to Nitro Olefins Organocatalyzed by α, α -Diphenylprolinol Trimethylsilyl Ether. Preliminary Communication, 1064

Oxazoles, 4,5-dihydro-

A Practical One-Step Synthesis of 1,2-Oxazoline Derivatives from Unprotected Sugars and Its Application to Chemoenzymatic β -N-Acetylglucosaminidation of Disialo-oligosaccharide, 1928

Oxazolidinones

Asymmetric Synthesis of β²-homo-tert-Leucine via Radical Addition to Enantiopure N-Fumaroylhexahydrobenzooxazolidin-2-one, 1714

Oxepinones

Photocyclodimers of 'Made-to-Measure' Seven- and Six-Membered Cyclic Enones, 423

Oxidation

Studies on Alkyl–Nitrogen Bond Formation via Reductive Elimination from Monomeric Palladium Complexes in High Oxidation State, 2007

Oxidative cleavage

Oxidative Cleavage and Rearrangement of Aryl Epoxides Using Iodosylbenzene: on Criegee's Trail, 2036 Oxidative deamination

Nicotinium Dichromate (=3-Carboxypyridinium Dichromate; NDC) as an Efficient Reagent for the Oxidative Deamination of Amines and Aminophosphonates, 613

Oxidative rearrangement

Oxidative Cleavage and Rearrangement of Aryl Epoxides Using Iodosylbenzene: on *Criegee*'s Trail, 2036 **Oxime ethers**

'Click Synthesis' of Some Novel O-Substituted Oximes Containing 1,2,3-Triazole-1,4-diyl Residues as New Analogs of β -Adrenoceptor Antagonists, 491

Metal-Free 2,2,6,6-Tetramethylpiperidin-1-yloxy Radical (TEMPO) Catalyzed Aerobic Oxidation of Hydroxylamines and Alkoxyamines to Oximes and Oxime Ethers, 1758

Oximes

Cyano-Bridged 'Oximato' Complexes: Synthesis, Structure, and Catalase-Like Activities, 647

Metal-Free 2,2,6,6-Tetramethylpiperidin-1-yloxy Radical (TEMPO) Catalyzed Aerobic Oxidation of Hydroxylamines and Alkoxyamines to Oximes and Oxime Ethers, 1758

Oxindoles, 3,3-disubstituted

Synthesis of 3,3-Disubstituted Oxindoles via a Three-Component Condensation Reaction in H₂O, 1126

pK_a Measurements

Preparation and Characterization of New C_2 - and C_1 -Symmetric Nitrogen, Oxygen, Phosphorous, and Sulfur Derivatives and Analogs of TADDOL. Part III. Some New Chiral *Brønsted* Acids for Organocatalysis and p K_a Values in MeO–(CH₂)₂–OH/H₂O – A Survey, 1303

Palladacycles

Mizoroki–Heck and Sonogashira Cross-Couplings Catalyzed by CNC Palladium Pincer Complexes in Organic and Aqueous Media, 955

Palladium catalyst

Regioselective Arylation and Alkynylation of 2,3-Dibromo-1*H*-inden-1-one by *Suzuki–Miyaura* and *Sonogashira* Cross-Coupling Reactions, 469

Synthesis of Azaaromatic–Borane Intramolecular Complexes by Palladium-Catalyzed Reaction of Azaaromatic Halides with Alkynyl(triaryl)borates, 2474

Palladium complexes

- Synthesis of a Novel C₂-Symmetric Bis-oxazoline (=Bis[4,5-dihydrooxazole]) and Its Application as Chiral Ligand in Asymmetric Transition Metal Catalysis, 831
- Mizoroki-Heck and Sonogashira Cross-Couplings Catalyzed by CNC Palladium Pincer Complexes in Organic and Aqueous Media, 955
- Studies on Alkyl–Nitrogen Bond Formation via Reductive Elimination from Monomeric Palladium Complexes in High Oxidation State, 2007
- Coordination of Ligands That Contain Thiocarbonyl, Carbonyl, or Thiolate Functionalities to Complex Fragments of Palladium in Various Oxidation States, 2528

A Capture-and-Release Catalytic Flow System, 2578

Palladium nanoparticles

Interfacially Cross-Linked Reverse Micelles as Soluble Support for Palladium Nanoparticle Catalysts, 863 Paradisone®

The Jubilee of Methyl Jasmonate and Hedione®, 1479

Penicillide

A Convergent Approach to Dibenzodioxocinones: Synthesis of Racemic Penicillide, 626

Pentacenes, dihydro-

Cyclization of (2-Alkenylphenyl)carbonyl Compounds to Polycyclic Arenes Catalyzed by Copper(II) Trifluoromethanesulfonate or Trifluoromethanesulfuric Acid, 1953

Pentaphenes, dihydro-

Cyclization of (2-Alkenylphenyl)carbonyl Compounds to Polycyclic Arenes Catalyzed by Copper(II) Trifluoromethanesulfonate or Trifluoromethanesulfuric Acid, 1953

Pent-3-en-2-one, 1-chloro-1,1-difluoro-

Regioselective Synthesis of 6-[Chloro(difluoro)methyl]salicylates by [3+3] Cyclocondensations of 1,3-Bis(trimethylsilyloxy)buta-1,3-dienes with 1-Chloro-1,1-difluoro-4-(trimethylsilyloxy)pent-3-en-2-one, 1037

Peptides

Preparation of Pseudo-Peptide Building Blocks with *retro*-Thioamide Bond Mediated *via* Thiocarbamoyl *Meldrum*'s Acid, 461

Two New Cycloheptapeptides from *Psammosilene tunicoides*, 929

- A New Cyclopeptide and Other Constituents from the Leaves of Zanthoxylum rigidum HUMB. & BONPL. ex WILLD. (Rutaceae), 935
- Cyclohexadepsipeptides from the Filamentous Fungus Acremonium sp. BCC 2629, 963
- Synthesis of Aib-Pro Oligopeptides by Repeated Azirine Coupling with the Aib-Pro Synthon, 1325
- Enantioselective Solid-Phase Peptide Synthesis Using Traceless Chiral Coupling Reagents and Racemic Amino Acids, 2084

Microwave-Assisted Synthesis of β -Lactams and Cyclo- β -dipeptides, 2218

- Fluorine in Peptides: The Synthesis of α-Fluoro-β-Amino Dipeptides by Direct Deoxofluorination/ Rearrangement of N-Seryl Dipeptides, 2331
- Ab initio MO Theory An Important Tool in Foldamer Research: Prediction of Helices in Oligomers of ω-Amino Acids, 2348
- cis-trans Peptide-Bond Isomerization in a-Methylproline Derivatives, 2411

2-Amino-1,2,3,6-tetrahydro-6-oxocyclopenta[c]fluorene-2-carboxylic Acid (FlAib), a Completely Rigidified, Fluoren-9-one-Based α-Amino Acid, 2446

Synthesis of Enantiomerically Pure Isoxazolidine Monomers for the Preparation of β^3 -Oligopeptides by Iterative α -Keto Acid–Hydroxylamine (KAHA) Ligations, 2481

Ring-Extended Gramicidin S Analogs Containing *cis* δ-Sugar Amino Acid Turn Mimetics with Varying Ring Size, 2544

The Structural Characterization of Folded Peptides Containing the Conformationally Constrained β -Amino Acid Residue $\beta^{2,2}Ac_6c$, 2589

Design and Synthesis of Nucleoproline Amino Acids for the Straightforward Preparation of Chiral and Conformationally Constrained Nucleopeptides, 2621

Peptidomimetics

A One-Pot Tandem Ugi Multicomponent Reaction (MCR)/Click Reaction as an Efficient Protecting-Group-Free Route to 1H-1,2,3-Triazole-Modified α-Amino Acid Derivatives and Peptidomimetics, 87

Synthesis of Functionalized Glutamine- and Asparagine-Type Peptoids - Scope and Limitations, 2237 Peptoids

Synthesis of Functionalized Glutamine- and Asparagine-Type Peptoids - Scope and Limitations, 2237 Pericvclic reaction

Mechanistic Investigation of the Ring Opening in the Staudinger Cycloaddition Involving Ketenes with Electron-Withdrawing Substituents, 1079

Phase-transfer catalysis

Alkylations of Chiral Nickel(II) Complexes of Glycine under Phase-Transfer Conditions, 2672

Phenolic lipids

A New Triterpene and Phenolic Compounds from the Roots of Pteroxygonum giraldii, 127 Phenothiazine

Synthesis of Some New 2-Oxo-N-[(10H-phenothiazin-10-yl)alkyl] Derivatives of Azetidine-1-carboxamides, 514

Phenylhydrazine

A Convenient Synthesis of Functionalized Indenopyrazolones from Indan-1,2,3-trione, Benzaldehydes, and Phenylhydrazine, 1581

Phenylpropanoids

Norlignans and Phenylpropanoids from Metasequoia glyptostroboides HU et CHENG, 606

Pheromones

Asymmetric Syntheses of the Sex Pheromones of Pine Sawflies, Their Homologs and Stereoisomers, 1799 Phosphaacetylene

New Aspects of 1,3-Diphosphacyclobutane-2,4-diyls, 1723

Phosphadecalins

Synthesis and Characterization of Enantiomerically Pure cis- and trans-3-Fluoro-2,4-dioxa-8-aza-3-phosphadecalin 3-Oxides as γ -Homoacetylcholine Mimetics and Inhibitors of Acetylcholinesterase, 17

Phosphites

Preparation and Characterization of New C2- and C1-Symmetric Nitrogen, Oxygen, Phosphorous, and Sulfur Derivatives and Analogs of TADDOL. Part II. TADDAMIN-Derived and Phosphorous-Containing Compounds, 1273

Phosphonates

Preparation and Characterization of New C2- and C1-Symmetric Nitrogen, Oxygen, Phosphorous, and Sulfur Derivatives and Analogs of TADDOL. Part II. TADDAMIN-Derived and Phosphorous-Containing Compounds, 1273

Phosphonation

New Efficient Synthetic Pathways to Tetrakis{p-[(diethylphosphono)methyl]}calix[4]arene, 766

Phosphoramidates

Preparation and Characterization of New C2- and C1-Symmetric Nitrogen, Oxygen, Phosphorous, and Sulfur Derivatives and Analogs of TADDOL. Part II. TADDAMIN-Derived and Phosphorous-Containing Compounds, 1273

Phosphorothioate

Synthesis of 3',5'-Cyclic Phosphate and Thiophosphate Esters of 2'-C-Methyl Ribonucleosides, 1512

Photochromism

Two 1,3-Diazabicyclo[3.1.0]hex-3-enes with a 'Tripod' Core, 536

Photocyclodimerization

Photocyclodimers of 'Made-to-Measure' Seven- and Six-Membered Cyclic Enones, 423

Phryma leptostachya

Lignans from Phryma leptostachya L., 333

Phrymarolins III and IV

Lignans from Phryma leptostachya L., 333

Phthalaldehyde

Ultrasound-Promoted Catalyst-Free Synthesis of 2,2'-(1,4-Phenylene)bis[1-acetyl-1,2-dihydro-4H-3,1-benzoxazin-4-one] Derivatives, 1217

Pinacol deoxygenation

A One-Pot Cross-Pinacol Coupling/Rearrangement Procedure, 1970

retro-Pinacol reaction

A One-Pot Cross-Pinacol Coupling/Rearrangement Procedure, 1970

Pinacol rearrangement

A One-Pot Cross-Pinacol Coupling/Rearrangement Procedure, 1970

Pincer π -complex

Crystal Structure of a Hydrated Molecular 1:2 Complex of Nicotinamide Adenine Dinucleotide (NAD+) and Gallic Acid: Polar Alignment of the Phenolic Partner Molecules, 872

Pine sawflies

Asymmetric Syntheses of the Sex Pheromones of Pine Sawflies, Their Homologs and Stereoisomers, 1799 **Pinner** reaction

An Efficient Synthesis of 3-(1H-Tetrazol-5-yl)coumarins (=3-(1H-Tetrazol-5-yl)-2H-1-benzopyran-2-ones) via Domino Knoevenagel Condensation, Pinner Reaction, and 1,3-Dipolar Cycloaddition in Water, 1600

A Hydrogen Chloride-Free Pinner Reaction Promoted by Lewis Acids, 1851

Piperidones

Synthesis and Antimalarial-Activity Evaluation of Tetraoxane-Triazine Hybrids and Spiro[piperidine-4,3'tetraoxanes], 1181

Plasmodium falciparum

Synthesis and Antimalarial-Activity Evaluation of Tetraoxane-Triazine Hybrids and Spiro[piperidine-4,3'tetraoxanes], 1181

Plectranthus bishopianus

A New Abietane Diterpenoid from Plectranthus bishopianus BENTH., 643

Polar molecular alignment

Crystal Structure of a Hydrated Molecular 1:2 Complex of Nicotinamide Adenine Dinucleotide (NAD+) and Gallic Acid: Polar Alignment of the Phenolic Partner Molecules, 872

Polvacetvlenes

Chemical Composition of the Volatile Oil from the Roots of Selinum tenuifolium WALL., 780

Polyelectrolytes

Main-Chain Scission of a Charged Fifth-Generation Dendronized Polymer, 2399

Polyene dye

Two Novel Push-Pull Series of Benzothiazole-Based Dyes: Synthesis and Characterization, 1548 Polymers

Main-Chain Scission of a Charged Fifth-Generation Dendronized Polymer, 2399

Poly(oxymethylene) helix

Chirality Transfer in the Formation of Poly(oxymethylene) Helices by Anionic Polymerization, 845 Porphyrinoids

A Functionalized Spiro[chlorin-porphyrin]-Type 'Dimer' Dizinc Complex from Rapid [4+2] Self-cycloaddition of a Conjugated [β , β' -Bis(methylene)porphyrinato]zinc, 211

Pothos scandens

Methyl Pothoscandensate, a New ent-18($4 \rightarrow 3$)-Abeokaurane from Pothos scandens, 1231

Pouteria sapota

Isolation and Characterization of Novel Capsorubin-Like Carotenoids from the Red Mamey (Pouteria sapota), 983

Prins cyclization

Stereoselective Total Synthesis of Stagonolide C, 227

Prodrugs

Synthesis of 3',5'-Cyclic Phosphate and Thiophosphate Esters of 2'-C-Methyl Ribonucleosides, 1512 Proline

Isosteviol-Proline Conjugates as Highly Efficient Amphiphilic Organocatalysts for Asymmetric Three-Component Mannich Reactions in the Presence of Water, 43

New Optically Active Bis-Heterocycles Derived from (S)-Proline, 1521

Chiral Proline-Based P,O and P,N Ligands for Iridium-Catalyzed Asymmetric Hydrogenation, 2176

Asymmetric Proline-Catalyzed Addition of Aldehydes to 3H-Indol-3-ones: Enantioselective Synthesis of 2,3-Dihydro-1H-indol-3-ones with Quaternary Stereogenic Centers, 2296

Proline, α-methyl-

cis-trans Peptide-Bond Isomerization in a-Methylproline Derivatives, 2411

Proline derivatives

Design and Synthesis of Nucleoproline Amino Acids for the Straightforward Preparation of Chiral and Conformationally Constrained Nucleopeptides, 2621

Propane-1,3-dithiol

Toward the Synthesis of Modified Carbohydrates by Conjugate Addition of Propane-1,3-dithiol to α,β -Unsaturated Ketones, 2099

Propan-1-ones, 3-(arylamino)-1-ferrocenyl-

Ultrasound-Assisted Synthesis of 3-(Arylamino)-1-ferrocenylpropan-1-ones, 1425

Proper experimental practice

On Hype, Malpractice, and Scientific Misconduct in Organic Synthesis, 2052

Psammosilene tunicoides

Two New Cycloheptapeptides from Psammosilene tunicoides, 929

Pteroxygonum giraldii

A New Triterpene and Phenolic Compounds from the Roots of Pteroxygonum giraldii, 127 Pteroxygonumnol A

A New Triterpene and Phenolic Compounds from the Roots of Pteroxygonum giraldii, 127

Push-pull system

Two Novel Push–Pull Series of Benzothiazole-Based Dyes: Synthesis and Characterization, 1548

1H,7H,12bH-Pyrano[3',4':5,6]pyrano[3,4-c][1]benzopyran-1-one

Synthesis of 1H,7H,12bH-Pyrano[3',4':5,6]pyrano[3,4-c][1]benzopyran-1-one via Domino Knoevenagel/ Hetero-Diels-Alder Reaction with Theoretical Investigations, 52

Pyrazine-2,3-dicarbonitriles, 1,6-dihydro-6,6-dimethyl-

Isocyanide-Based Three-Component Synthesis of Highly Substituted 1,6-Dihydro-6,6-dimethylpyrazine-2,3dicarbonitrile, 3,4-Dihydrobenzo[g]quinoxalin-2-amine, and 3,4-Dihydro-3,3-dimethyl-quinoxalin-2-amine Derivatives, 246

Pyrazines

Synthesis of Functionalized Pyrazines and Quinoxalines from Nef-Isocyanide Adducts and 1,2-Diamines, 169 Isocyanide-Based Three-Component Synthesis of Highly Substituted 1,6-Dihydro-6,6-dimethylpyrazine-2,3dicarbonitrile, 3,4-Dihydrobenzo[g]quinoxalin-2-amine, and 3,4-Dihydro-3,3-dimethyl-quinoxalin-2-amine Derivatives, 246

Pyrazole

A Convenient Synthesis of Functionalized Indenopyrazolones from Indan-1,2,3-trione, Benzaldehydes, and Phenylhydrazine, 1581

1H-Pyrazole-3-carboxylates

One-Pot Synthesis of 4-(2,3-Dihydro-2-hydroxy-1,3-dioxo-1H-inden-2-yl)-Substituted 1-Aryl-1H-pyrazole-3carboxylates via a Tandem Three-Component Reaction, 278

Pyrazole-coupled glucosides

Synthesis, Crystal Structures, and Fungicidal Activity of Novel 1,5-Diaryl-3-(glucopyranosyloxy)-1Hpyrazoles, 1645

Pyrazolo[1,5-a]pyrimidines

Synthesis of Novel Disubstituted Pyrazolo[1,5-a]pyrimidines, Imidazo[1,2-a]pyrimidines, and Pyrimido[1,2a]benzimidazoles Containing Thioether and Aryl Moieties, 989

Pyrazolo[5,1-d][1,2,5]triazepin-4-ones

Facile Synthesis, Single-Crystal Structure, and Biological Evaluation of Novel Pyrazolo[5,1-d][1,2,5]triazepin-4-ones, 134

Pvrethroids

Syntheses of Racemic and Scalemic *cis*-Chrysanthemic Acid from β , γ -Unsaturated Cyclohexanol, 2123

Pyridazinones

Synthesis of Perfluoroalkyl-Substituted y-Lactones and 4,5-Dihydropyridazin-3(2H)-ones via Donor-Acceptor Cyclopropanes, 1818

Pyridin-3-amine

Synthesis of 4-Aryl-1,7-naphthyridine-2(1H)-thiones by the Electrocyclic Reaction of 4-(1-Arylalk-1-enyl)-3isothiocyanatopyridines Generated in situ from the Corresponding Isocyanides, 556

Pyridine

Synthesis of Azaaromatic–Borane Intramolecular Complexes by Palladium-Catalyzed Reaction of Azaaromatic Halides with Alkynyl(triaryl)borates, 2474

Pyridine, 4-(but-3-en-1-yl)-

A One-Pot Organometallic Route from a 4-Alkenylpyridine to a 4,4-Spiro-Linked Ethyl 1,4-Dihydropyridine-1-carboxylate, 2063

Pyridine ligands, 4-substituted 2,6-diacyl-

Trinuclear Non-Heme Iron Complexes Based on 4-Substituted 2,6-Diacylpyridine Ligands as Catalysts in Aerobic Allylic Oxidations, 197

Pyridine-3-carboxylic anhydride

Kinetic Resolution of Racemic Secondary Benzylic Alcohols by the Enantioselective Esterification Using Pyridine-3-carboxylic Anhydride (3-PCA) with Chiral Acyl-Transfer Catalysts, 1891

Pyridines, 3-isothiocyanato-

Synthesis of 4-Aryl-1,7-naphthyridine-2(1*H*)-thiones by the Electrocyclic Reaction of 4-(1-Arylalk-1-enyl)-3isothiocyanatopyridines Generated *in situ* from the Corresponding Isocyanides, 556

Pyridines, 1,2,3,4-tetrahydro-2-oxo

A Straightforward Synthesis of 2-[1-Alkyl-5,6-bis(alkoxycarbonyl)-1,2,3,4-tetrahydro-2-oxopyridin-3-yl]acetic Acid Derivatives via Domino Michael Addition–Cyclization Reaction, 858

Pyrido[1,2-*a*]-fused compounds

A Novel and Efficient Synthesis of Pyrido[1,2-*a*]-Fused 1,3-Diazaheterocyclic Compounds *via* a One-Pot Three-Component Reaction, 152

1H-Pyrido[4,3-b]indoles, 2,3,4,5-tetrahydro-

Design and Synthesis of Some Novel 2,3,4,5-Tetrahydro-1*H*-pyrido[4,3-*b*]indoles as Potential c-Met Inhibitors, 320

Pyrimidin-2(1H)-ones, 3,4-dihydro-

Aluminium Nitrate Nonahydrate (Al(NO_3)₃·9 H₂O): An Efficient Oxidant Catalyst for the One-Pot Synthesis of *Biginelli* Compounds from Benzyl Alcohols, 115

Pyrimidin-2(1*H*)-thiones, 3,4-dihydro-

Aluminium Nitrate Nonahydrate (Al(NO₃)₃·9 H₂O): An Efficient Oxidant Catalyst for the One-Pot Synthesis of *Biginelli* Compounds from Benzyl Alcohols, 115

Pyrimido[1,2-a]benzimidazoles

Synthesis of Novel Disubstituted Pyrazolo[1,5-*a*]pyrimidines, Imidazo[1,2-*a*]pyrimidines, and Pyrimido[1,2-*a*]benzimidazoles Containing Thioether and Aryl Moieties, 989

Pyrimido[2,1-a]isoindoles, dihydro-

Multicomponent Transformation of Isoindoline-1,3-diimine (=1H-Isoindole-1,3(2H)-diimine), Acetylenic Esters, and Triphenylphosphine to Novel Dihydropyrimido[2,1-*a*]isoindole Derivatives, 185

1H-Pyrrole, 2-[1-methyl-1-(pyrrolidin-2-yl)ethyl-

Synthesis and Reactions of 2-[1-Methyl-1-(pyrrolidin-2-yl)ethyl]-1*H*-pyrrole and Some Derivatives with Aldehydes: Chiral Structures Combining a Secondary-Amine Group with an 1*H*-Pyrrole Moiety as Excellent H-Bond Donor, 2249

Pyrroles

A Novel Asymmetric Synthesis of 3-(1*H*-Pyrrol-1-yl)-Substituted β-Lactams via a Bismuth Nitrate-Catalyzed Reaction, 839

Some Aspects of the Chemistry of Nitro Compounds, 1730

Quercetin 3',7-dimethyl ether

Flavonoid Constituents from Spiraea brahuica, 100

Quercetin glucosides

3-O-Methylquercetin Glucosides from Ophioglossum pedunculosum and Inhibition of Lipopolysaccharide-Induced Nitric Oxide Production in RAW 264.7 Macrophages, 1586

Quinic acid

New Quinic Acid Derivatives from Hepatoprotective Inula crithmoides Root Extract, 61

Quinolines, adamantan-1-yl-

Novel Route to 4-(Adamantan-1-yl)quinoline Derivatives Based on the Friedländer Condensation, 1003

Quinolizinium-1-olates, 2-alkyl-

Novel Synthesis of 2-Alkylquinolizinium-1-olates and Their 1,3-Dipolar Cycloaddition Reactions with Acetylenes, 737

Quinoxalin-2-amines, 3,4-dihydro-3,3-dimethyl-

Isocyanide-Based Three-Component Synthesis of Highly Substituted 1,6-Dihydro-6,6-dimethylpyrazine-2,3dicarbonitrile, 3,4-Dihydrobenzo[g]quinoxalin-2-amine, and 3,4-Dihydro-3,3-dimethyl-quinoxalin-2-amine Derivatives, 246

Quinoxalines

Synthesis of Functionalized Pyrazines and Quinoxalines from *Nef*-Isocyanide Adducts and 1,2-Diamines, 169 Isocyanide-Based Three-Component Synthesis of Highly Substituted 1,6-Dihydro-6,6-dimethylpyrazine-2,3dicarbonitrile, 3,4-Dihydrobenzo[g]quinoxalin-2-amine, and 3,4-Dihydro-3,3-dimethyl-quinoxalin-2-amine Derivatives, 246

Radical cyclization

Radical Cyclization Reactions via Manganese(III) Acetate Leading to 2-Thienyl-Substituted Dihydrofuran Compounds, 795

Radical reactions

Formal Synthesis of (-)-Cephalotaxine, 2502

RAFT Polymerization

Main-Chain Scission of a Charged Fifth-Generation Dendronized Polymer, 2399

Reductive elimination

Studies on Alkyl–Nitrogen Bond Formation via Reductive Elimination from Monomeric Palladium Complexes in High Oxidation State, 2007

Regioselective synthesis

Exaltone[®] (=Cyclopentadecanone) from Isomuscone[®] (=Cyclohexadecanone), a One-C-Atom Ring-Contraction Methodology via a Stereospecific Favorskii Rearrangement: Regioselective Application to (-)-(R)-Muscone, 428

Regioselectivity

Simple and Highly Efficient Catalytic Thiocyanation of Aromatic Compounds in Aqueous Media, 106 Rhamnolipids

Minimally Competent Lewis Acid Catalysts: Indium(III) and Bismuth(III) Salts Produce Rhamnosides (=6-Deoxymannosides) in High Yield and Purity, 2652

Rhodium complexes

C₁-Symmetric Bicyclo[2.2.2]octa-2,5-diene (bod*) Ligands in Rhodium-Catalyzed Asymmetric 1,4-Addition of Arylboronic Acids to Enones and 1,2-Addition to *N*-[(4-Nitrophenyl)sulfonyl]imines, 1809

Ribofuranoside analogs, C-imino-

Synthesis of a C-Iminoribofuranoside Analog of the Nicotinamide Phosphoribosyltransferase (NAMPT) Inhibitor FK866, 34

DL-Ribose

DL-Ribose Crystal Structures: the Glass-Crystal Transformation, 1687

Riemschneider reaction

Modified Riemschneider Reaction of 3-Thiocyanatoquinolinediones, 1352

Ring opening

Synthesis of Novel 8,14-Secoursane Derivatives: Key Intermediates for the Preparation of Chiral Decalin Synthons from Ursolic Acid, 1026

Mechanistic Investigation of the Ring Opening in the *Staudinger* Cycloaddition Involving Ketenes with Electron-Withdrawing Substituents, 1079

Ring-closing metathesis (RCM)

Stereoselective Total Synthesis of Stagonolide C, 227

Stereoselective Total Synthesis of Botryolide E, 1152

A Convergent Synthesis of a Twelve-Membered Macrolide Natural Product, (6*R*,12*S*)-6-Hydroxy-12-methyl-1-oxacyclododecane-2,5-dione, 1623

Royleanone, 6β-hydroxy-7α-methoxy-

A New Abietane Diterpenoid from Plectranthus bishopianus BENTH., 643

Rubrolides C and E

New Concise and Efficient Synthesis of Rubrolides C and E via Intramolecular Wittig Reaction, 852 Ruthenium complexes

Ruthemum complexes

Verification and Biophysical Characterization of a New Three-Color Förster Resonance-Energy-Transfer (FRET) System in DNA, 543

Salicylates, 6-[chloro(difluoro)methyl]-

Regioselective Synthesis of 6-[Chloro(difluoro)methyl]salicylates by [3+3] Cyclocondensations of 1,3-Bis(trimethylsilyloxy)buta-1,3-dienes with 1-Chloro-1,1-difluoro-4-(trimethylsilyloxy)pent-3-en-2-one, 1037

Saponins

A New 30-Noroleanane Saponin from Wedelia chinensis, 1395

Two New Triterpene Saponins from Cyclamen africanum BOISS. & REUTER, 1573

Sarcabosides A and B

Two New-Skeleton Compounds from Sarcandra glabra, 998

Sarcandra glabra

Two New-Skeleton Compounds from Sarcandra glabra, 998

Sarcophyton trocheliophorum

Yalongenes A and B, Two New Cembranoids with Cytoprotective Effects from the Hainan Soft Coral Sarcophyton trocheliophorum MARENZELLER, 235

Science fraud

On Hype, Malpractice, and Scientific Misconduct in Organic Synthesis, 2052

Secoiridoid glucosides

New Iridoid and Secoiridoid Glucosides from the Roots of *Gentiana manshurica*, 1094 Secoiridoid sulfonate

Secoiridoid Sulfonates from the Sulfiting-Processed Buds of Lonicera japonica, 1144

Secologanic acid

Secoiridoid Sulfonates from the Sulfiting-Processed Buds of Lonicera japonica, 1144

Secondary amine

Secondary Amine-Catalyzed Asymmetric γ-Alkylation of α-Branched Enals via Dienamine Activation, 1985 8,14-Secoursane

Synthesis of Novel 8,14-Secoursane Derivatives: Key Intermediates for the Preparation of Chiral Decalin Synthons from Ursolic Acid, 1026

Seebach alkylation

Asymmetric Syntheses of the Sex Pheromones of Pine Sawflies, Their Homologs and Stereoisomers, 1799 Selenium complexes

{1,1'-(Dimethylsilylene)bis[methanechalcogenolato]}diiron Complexes [2Fe2E(Si)] (E = S, Se, Te) - [FeFe] Hydrogenase Models, 2168

Self-regeneration of stereogenic centers (SRS)

Formal Synthesis of (-)-Cephalotaxine, 2502

Self-reproduction of chirality

Enantioselective Synthesis of (-)-(R)-Cordiachromene and (-)-(R)-Dictyochromenol Utilizing Intramolecular S_N Ar Reaction, 1946

Selinum tenuifolium

Chemical Composition of the Volatile Oil from the Roots of Selinum tenuifolium WALL., 780

N-Seryl dipeptides

Fluorine in Peptides: The Synthesis of α -Fluoro- β -Amino Dipeptides by Direct Deoxofluorination/ Rearrangement of N-Seryl Dipeptides, 2331

Sesquiterpenes

Two New Sesquiterpenes from the Marine Fungus *Eutypella scoparia* FS26 from the South China Sea, 157 Four New Cuparene-Type Sesquiterpenes from *Flammulina velutipes*, 261

Sesquiterpenoids

Sesquiterpenoids and 2-(2-Phenylethyl)-4*H*-chromen-4-one (=2-(2-Phenylethyl)-4*H*-1-benzopyran-4-one) Derivatives from *Aquilaria malaccensis* Agarwood, 636

Terpenoids from Loxocalyx urticifolius, 1136

Six New Sesquiterpenes from Eupatorium lindleyanum, 1637 Sharpless asymmetric epoxidation Total Synthesis of Umuravumbolide, 1593 Sialylparaglobosides (SPGs) A Novel Method for the Production of Glycosphingolipids, 67 Siegesbeckia pubescens Three New ent-Kaurane Diterpenoids from Siegesbeckia pubescens, 221 Silanes, allyl-Lewis Acid-Mediated Addition of Amino Acid-Substituted a-Allylsilanes to Aromatic Acetals, 2660 Silyl enol ethers, perfluoroalkyl-substituted Synthesis of Perfluoroalkyl-Substituted y-Lactones and 4,5-Dihydropyridazin-3(2H)-ones via Donor-Acceptor Cyclopropanes, 1818 Sinoraculine Sinoraculine, the Precursor of the Novel Alkaloid Sinoracutine from Stephania cepharantha HAYATA, 1198 Size control Room Temperature Synthesis and Size Control of HKUST-1, 2278 Soft corals Yalongenes A and B, Two New Cembranoids with Cytoprotective Effects from the Hainan Soft Coral Sarcophyton trocheliophorum MARENZELLER, 235 Solidago canadensis Two New Diterpenes from Solidago canadensis, 1121 Solidagocanins A and B Two New Diterpenes from Solidago canadensis, 1121 Solid-phase synthesis Enantioselective Solid-Phase Peptide Synthesis Using Traceless Chiral Coupling Reagents and Racemic Amino Acids, 2084 Sonogashira cross-coupling Regioselective Arylation and Alkynylation of 2,3-Dibromo-1H-inden-1-one by Suzuki-Miyaura and Sonogashira Cross-Coupling Reactions, 469 Mizoroki-Heck and Sonogashira Cross-Couplings Catalyzed by CNC Palladium Pincer Complexes in Organic and Aqueous Media, 955 Sophora alopecuroides A New Alkaloid from the Seeds of Sophora alopecuroides L., 1108 Sparins A-C Flavonoid Constituents from Spiraea brahuica, 100 Spiraea brahuica Flavonoid Constituents from Spiraea brahuica, 100 Spirodihydropyridines A One-Pot Organometallic Route from a 4-Alkenylpyridine to a 4,4-Spiro-Linked Ethyl 1,4-Dihydropyridine-1-carboxylate, 2063 Spirostanes New Minor Spirostane Glycosides from Ypsilandra thibetica, 1087 Spirothiazolidin-4-ones The First One-Pot, Solvent-Free, Microwave-Accelerated, Three-Component Synthesis of Spirothiazolidin-4ones via Staudinger/Aza-Wittig Coupling/Cyclization, 922 SplendioneTM The Jubilee of Methyl Jasmonate and Hedione®, 1479 π -Stacking Crystal Structure of a Hydrated Molecular 1:2 Complex of Nicotinamide Adenine Dinucleotide (NAD+) and

Gallic Acid: Polar Alignment of the Phenolic Partner Molecules, 872

Stagonolide C

Stereoselective Total Synthesis of Stagonolide C, 227

Stannane, tributyl(trifluoromethyl)-

CuI-Mediated Trifluoromethylations with Stannanes. Preliminary Communication, 2231

Stannous chloride dihydrate

Rapid Synthesis of Novel and Known Coumarin-3-carboxylic Acids Using Stannous Chloride Dihydrate under Solvent-Free Conditions, 455

Staudinger cycloaddition

Mechanistic Investigation of the Ring Opening in the *Staudinger* Cycloaddition Involving Ketenes with Electron-Withdrawing Substituents, 1079

Stellaria dichotoma

Five New β -Carboline-Type Alkaloids from *Stellaria dichotoma* var. *lanceolata*, 1018

Stephania cepharantha

Sinoraculine, the Precursor of the Novel Alkaloid Sinoraculine from *Stephania cepharantha* HAYATA, 1198 Stereoselective synthesis

Microwave-Assisted Stereoselective 1,3-Dipolar Cycloaddition of *C*,*N*-Diarylnitrone (*i.e.*, *N*-(Arylmethylidene)benzenamine *N*-Oxide) and Bis(arylmethylidene)acetone (=1,5-Diarylpenta-1,4-dien-3-one): NMR and Crystal Analysis of Diastereoisomeric Bis(isoxazolidines), 173

Stereoselective Total Synthesis of Botryolide E, 1152

The First Stereoselective Total Synthesis of a Naturally Occurring Bioactive Diarylheptanoid, (3*R*,6*E*)-1,7-Bis(4-hydroxyphenyl)hept-6-en-3-ol, through Two Different Approaches, 1666

Application of D-chiro-Inositol as a Chiral Template for the Diels-Alder Reaction, 2026

(2-Bromoethyl)sulfonium Trifluoromethanesulfonates in Stereoselective Annulation Reactions for the Formation of Fused Bicyclic Epoxides and Aziridines, 2384

A Study on the Diastereoselective Synthesis of α -Fluorinated β^3 -Amino Acids by α -Fluorination, 2460 **Steroids**

Highly Conjugated Ergostane-Type Steroids and Aranotin-Type Diketopiperazines from the Fungus Aspergillus terreus BCC 4651, 308

Polyhydroxylated Steroids from the South China Sea Gorgonian Anthogorgia sp., 522

Structure-activity relationship (SAR)

The Jubilee of Methyl Jasmonate and Hedione®, 1479

Synthesis, Crystal Structures, and Fungicidal Activity of Novel 1,5-Diaryl-3-(glucopyranosyloxy)-1H-pyrazoles, 1645

Structure-photochromic behavior relationship (SPBR)

Two 1,3-Diazabicyclo[3.1.0]hex-3-enes with a 'Tripod' Core, 536

Styrenes

One-Pot Synthesis of 4-Substituted 3,4-Dihydro-3-methoxyisocoumarins via Carboxylation of α-Substituted 2-Lithio-β-methoxystyrenes with Carbon Dioxide, 191

Sucrose

Three New Sucrose Fatty Acid Esters from Equisetum hiemale L., 1158

Sulfates

Preparation and Characterization of New C₂- and C₁-Symmetric Nitrogen, Oxygen, Phosphorous, and Sulfur Derivatives and Analogs of TADDOL. Part II. TADDAMIN-Derived and Phosphorous-Containing Compounds, 1273

Sulfides

(2-Bromoethyl)sulfonium Trifluoromethanesulfonates in Stereoselective Annulation Reactions for the Formation of Fused Bicyclic Epoxides and Aziridines, 2384

Sulfinyl imines

Diastereoselective Coupling of *N*-(*tert*-Butyl)sulfinyl Imines and Dimethyl Malonate. Synthesis of Enantiomerically Enriched β-Amino Esters and β-Lactams, 1790

Sulfur fumigation

Secoiridoid Sulfonates from the Sulfiting-Processed Buds of Lonicera japonica, 1144

Supramolecular chemistry

Dynamic Phenomena in Self-Complementary {2}-Metallocryptates Probed by Solution ¹³³Cs-NMR. New Insights into Ion Pairing Processes: X-Ray Structure and Solid-State NMR Spectra of a Meandering Species, 2429

Suzuki coupling reaction

Design and Synthesis of Some Novel 2,3,4,5-Tetrahydro-1*H*-pyrido[4,3-*b*]indoles as Potential c-Met Inhibitors, 320

2756

Stonnong ablanida

Suzuki-Miyaura reactions

Regioselective Arylation and Alkynylation of 2,3-Dibromo-1H-inden-1-one by Suzuki-Miyaura and Sonogashira Cross-Coupling Reactions, 469

Directed Metalation-Cross-Coupling Strategies. Total Syntheses of the Alleged and the Revised Phenanthrene Natural Product Gymnopusin, 2680

Syringa pinnatifolia

Two New Neolignans from the Stems of Syringa pinnatifolia HEMSL. var. alashanensis, 1680

Svripinnalignins A and B

Two New Neolignans from the Stems of Syringa pinnatifolia HEMSL. var. alashanensis, 1680

TADDAMIN

- Preparation and Characterization of New C2- and C1-Symmetric Nitrogen, Oxygen, Phosphorous, and Sulfur Derivatives and Analogs of TADDOL. Part II. TADDAMIN-Derived and Phosphorous-Containing Compounds, 1273
- Preparation and Characterization of New C2- and C1-Symmetric Nitrogen, Oxygen, Phosphorous, and Sulfur Derivatives and Analogs of TADDOL. Part III. Some New Chiral Brønsted Acids for Organocatalysis and pKa Values in MeO-(CH2)2-OH/H2O - A Survey, 1303

TADDOL

- Substrate Range of the Titanium TADDOLate Catalyzed Asymmetric Fluorination of Activated Carbonyl Compounds, 353
- Preparation and Characterization of New C2- and C1-Symmetric Nitrogen, Oxygen, Phosphorous, and Sulfur Derivatives and Analogs of TADDOL. Part I. Compounds Containing One or Two Sulfur-Containing Substituents and Use in Cu-Catalyzed Enantioselective Conjugate Additions to Cyclic Enones, 1239
- Preparation and Characterization of New C2- and C1-Symmetric Nitrogen, Oxygen, Phosphorous, and Sulfur Derivatives and Analogs of TADDOL. Part II. TADDAMIN-Derived and Phosphorous-Containing Compounds, 1273
- Preparation and Characterization of New C2- and C1-Symmetric Nitrogen, Oxygen, Phosphorous, and Sulfur Derivatives and Analogs of TADDOL. Part III. Some New Chiral Brønsted Acids for Organocatalysis and pK_a Values in MeO-(CH₂)₂-OH/H₂O - A Survey, 1303

TADDOP

Preparation and Characterization of New C2- and C1-Symmetric Nitrogen, Oxygen, Phosphorous, and Sulfur Derivatives and Analogs of TADDOL. Part II. TADDAMIN-Derived and Phosphorous-Containing Compounds, 1273

Taxanes

New 6/8/6-Taxanes Isolated from the Heartwood of Taxus cuspidata, 1566 Taxus cuspidata

New 6/8/6-Taxanes Isolated from the Heartwood of Taxus cuspidata, 1566

Tellurium complexes

 $\{1,1'-(Dimethylsilylene)bis[methanechalcogenolato]\}$ diiron Complexes [2Fe2E(Si)] (E = S, Se, Te) - [FeFe] Hydrogenase Models, 2168

Template synthesis

Interfacially Cross-Linked Reverse Micelles as Soluble Support for Palladium Nanoparticle Catalysts, 863 **TEMPO-Mediated** oxidation

Metal-Free 2,2,6,6-Tetramethylpiperidin-1-yloxy Radical (TEMPO) Catalyzed Aerobic Oxidation of Hydroxylamines and Alkoxyamines to Oximes and Oxime Ethers, 1758

Terephthalaldehyde

Ultrasound-Promoted Catalyst-Free Synthesis of 2,2'-(1,4-Phenylene)bis[1-acetyl-1,2-dihydro-4H-3,1-benzoxazin-4-one] Derivatives, 1217

Terpenoids

Preparation of Isotope Labeled/Unlabeled Key Intermediates in 2-Methyl-D-erythritol 4-Phosphate Terpenoid Biosynthetic Pathway, 683

$\alpha, \alpha, \alpha', \alpha'$ -Tetraaryl[1,3-dioxolane-4,5-diyl]dimethanol

Substrate Range of the Titanium TADDOLate Catalyzed Asymmetric Fluorination of Activated Carbonyl Compounds, 353

Tetracenes, tetrahydro-

Cyclization of (2-Alkenylphenyl)carbonyl Compounds to Polycyclic Arenes Catalyzed by Copper(II) Trifluoromethanesulfonate or Trifluoromethanesulfuric Acid, 1953

Tetradenia riparia

Total Synthesis of Umuravumbolide, 1593

Tetranortriterpenoids

Five New Tetranortriterpenoids from the Seeds of Toona ciliata, 301

Tetranuclear structures

Preparation and Characterization of New C₂- and C₁-Symmetric Nitrogen, Oxygen, Phosphorous, and Sulfur Derivatives and Analogs of TADDOL. Part I. Compounds Containing One or Two Sulfur-Containing Substituents and Use in Cu-Catalyzed Enantioselective Conjugate Additions to Cyclic Enones, 1239

Tetraoxanes

Synthesis and Antimalarial-Activity Evaluation of Tetraoxane–Triazine Hybrids and Spiro[piperidine-4,3'-tetraoxanes], 1181

Tetraphenylene, 2,3,10,11-tetrahydroxy-

2,3,10,11-Tetrahydroxytetraphenylene and Its Application in Molecular Recognition, 2604

1*H*-Tetrazole derivatives

Synthesis of 1,5-Disubstituted 1*H*-Tetrazole Derivatives *via* a Three-Component Reaction of Carbodiimides, Isocyanides, and Trimethylsilyl Azide, 594

An Efficient Synthesis of 3-(1*H*-Tetrazol-5-yl)coumarins (=3-(1*H*-Tetrazol-5-yl)-2*H*-1-benzopyran-2-ones) *via* Domino *Knoevenagel* Condensation, *Pinner* Reaction, and 1,3-Dipolar Cycloaddition in Water, 1600

Thermogravimetry

Two Novel Push–Pull Series of Benzothiazole-Based Dyes: Synthesis and Characterization, 1548

1,3,4-Thiadiazol-2-amines

Synthesis of Bis-Heterocyclic 1*H*-Imidazole 3-Oxides from 3-Oxido-1*H*-imidazole-4-carbohydrazides, 404 Thiazole-5-carboxylates, alkyl 2-(diarylamino)-4-phenyl-

Efficient One-Pot Synthesis of Alkyl 2-(Dialkylamino)-4-phenylthiazole-5-carboxylates and Single-Crystal X-Ray Structure of Methyl 2-(Diisopropylamino)-4-phenylthiazole-5-carboxylate, 339

Thiazoloquinolinediones

Modified Riemschneider Reaction of 3-Thiocyanatoquinolinediones, 1352

Thioamides

A Novel One-Pot Synthesis of Fully Substituted Thiophen-2(3H)-ones Using N,N-Disubstituted Thioamides, 1164

Thiocarbonyl π -coordination

Coordination of Ligands That Contain Thiocarbonyl, Carbonyl, or Thiolate Functionalities to Complex Fragments of Palladium in Various Oxidation States, 2528

Thiocyanates

Modified Riemschneider Reaction of 3-Thiocyanatoquinolinediones, 1352

Thiocyanation

Simple and Highly Efficient Catalytic Thiocyanation of Aromatic Compounds in Aqueous Media, 106 **Thiolate bridging**

Coordination of Ligands That Contain Thiocarbonyl, Carbonyl, or Thiolate Functionalities to Complex Fragments of Palladium in Various Oxidation States, 2528

Thiophen-2(3H)-ones

A Novel One-Pot Synthesis of Fully Substituted Thiophen-2(3H)-ones Using N,N-Disubstituted Thioamides, 1164

Titanium complexes

Synthesis of Some C₂-Symmetric Bidentate Ligands and Their Complexes Derived from Feist's Acid, 268 Substrate Range of the Titanium TADDOLate Catalyzed Asymmetric Fluorination of Activated Carbonyl Compounds, 353

Tithonia diversifolia

Two New Cerebrosides from the Aerial Parts of Tithonia diversifolia, 1169

Toona ciliata

Five New Tetranortriterpenoids from the Seeds of Toona ciliata, 301

Toonaciliatones B-F

Five New Tetranortriterpenoids from the Seeds of Toona ciliata, 301

Total synthesis

Total Synthesis of Umuravumbolide, 1593

The First Stereoselective Total Synthesis of a Naturally Occurring Bioactive Diarylheptanoid, (3R,6E)-1,7-Bis(4-hydroxyphenyl)hept-6-en-3-ol, through Two Different Approaches, 1666

Transglycosylation, chemo-enzymatic

A Practical One-Step Synthesis of 1,2-Oxazoline Derivatives from Unprotected Sugars and Its Application to Chemoenzymatic β-N-Acetylglucosaminidation of Disialo-oligosaccharide, 1928

Transimination

Organocatalysis of C=N/C=N and C=C/C=N Exchange in Dynamic Covalent Chemistry, 2635

Transition metal catalysts

A Capture-and-Release Catalytic Flow System, 2578

Triazines

Synthesis and Antimalarial-Activity Evaluation of Tetraoxane-Triazine Hybrids and Spiro[piperidine-4,3'tetraoxanes], 1181

Enantioselective Solid-Phase Peptide Synthesis Using Traceless Chiral Coupling Reagents and Racemic Amino Acids, 2084

Triazoles

Some Aspects of the Chemistry of Nitro Compounds, 1730

1H-1,2,3-Triazoles, 1-aryl-

Facile One-Pot Synthesis of Monosubstituted 1-Aryl-1H-1,2,3-triazoles from Arylboronic Acids and Prop-2ynoic Acid (= Propiolic Acid) or Calcium Acetylide (= Calcium Carbide) as Acetylene Source, 448

3H-1,2,4-Triazole-3-thiones, 2,4-dihydro-

Synthesis of Bis-Heterocyclic 1H-Imidazole 3-Oxides from 3-Oxido-1H-imidazole-4-carbohydrazides, 404 Trichoderma spirale

Two New Octahydronaphthalene Derivatives from Trichoderma spirale, an Endophytic Fungus Derived from Aquilaria sinensis, 805

Trichodermic acids A and B

Two New Octahydronaphthalene Derivatives from Trichoderma spirale, an Endophytic Fungus Derived from Aquilaria sinensis, 805

Triethyl phosphite

New Efficient Synthetic Pathways to Tetrakis[p-[(diethylphosphono)methyl]]calix[4]arene, 766

Trifluoromethylation

CuI-Mediated Trifluoromethylations with Stannanes. Preliminary Communication, 2231

Trinuclear complexes

Trinuclear Non-Heme Iron Complexes Based on 4-Substituted 2,6-Diacylpyridine Ligands as Catalysts in Aerobic Allvlic Oxidations, 197

'Tripod' core

Two 1,3-Diazabicyclo[3.1.0]hex-3-enes with a 'Tripod' Core, 536

Triterpene glycosides

New Secondary Metabolites from Asphodelus tenuifolius, 144

Triterpenes

A New Triterpene and Phenolic Compounds from the Roots of Pteroxygonum giraldii, 127 Antifungal Ursene-Type Triterpene from the Roots of Alhagi camelorum, 1556

Two New Triterpene Saponins from Cyclamen africanum BOISS. & REUTER, 1573

Triterpenoids

Two New Pentacyclic Triterpenoids from Centella asiatica, 255

- Highly Acetylated Lanostane-Type Triterpenoids from Coprinus cinereus 120, 282
- Triterpenoids from Melia toosendan, 286
- Five New Tetranortriterpenoids from the Seeds of Toona ciliata, 301
- A New 30-Noroleanane Saponin from Wedelia chinensis, 1395

A New Megastigmane Palmitate and a New Oleanane Triterpenoid from Aster yomena MAKINO, 1455 Tropolone

Synthesis and Structure Revision of Goupiolone A: A Benzotropolone Natural Product, 2194

Tunicyclins F and G

Two New Cycloheptapeptides from Psammosilene tunicoides, 929

Tyrosine-kinase receptor

Design and Synthesis of Some Novel 2,3,4,5-Tetrahydro-1*H*-pyrido[4,3-*b*]indoles as Potential c-Met Inhibitors, 320

Ugi reaction

A One-Pot Tandem Ugi Multicomponent Reaction (MCR)/Click Reaction as an Efficient Protecting-Group-Free Route to 1*H*-1,2,3-Triazole-Modified α-Amino Acid Derivatives and Peptidomimetics, 87

Efficient Synthesis of Novel Coumarin-3-carboxamides (=2-Oxo-2H-1-benzopyran-3-carboxamides) Containing Lipophilic Spacers, 528

Designing and Synthesis of Novel Amidated Fentanyl Analogs, 818

A Manifold Three-Step Synthetic Route to Polycyclic Annulated Hydantoins via Cyclic Imines, 1857

Ultrasonic irradiation

Ultrasound-Promoted Catalyst-Free Synthesis of 2,2'-(1,4-Phenylene)bis[1-acetyl-1,2-dihydro-4H-3,1-benzoxazin-4-one] Derivatives, 1217

Ultrasound-Assisted Synthesis of 3-(Arylamino)-1-ferrocenylpropan-1-ones, 1425

Umuravumbolide

Total Synthesis of Umuravumbolide, 1593

α,β-Unsaturated Ketones

Toward the Synthesis of Modified Carbohydrates by Conjugate Addition of Propane-1,3-dithiol to α , β -Unsaturated Ketones, 2099

Ursene

Antifungal Ursene-Type Triterpene from the Roots of Alhagi camelorum, 1556

Ursolic acid

Synthesis of Novel 8,14-Secoursane Derivatives: Key Intermediates for the Preparation of Chiral Decalin Synthons from Ursolic Acid, 1026

Veralkamine, 3-O-acetyl-

Three New Pregnane Alkaloids from Veratrum taliense, 1114

Veralkamine 3-(β -D-glucopyranoside)

Three New Pregnane Alkaloids from Veratrum taliense, 1114

Veratrum taliense

Three New Pregnane Alkaloids from Veratrum taliense, 1114

Vinyl ethers

1,2-Bis(trifluoromethyl)ethene-1,2-dicarbonitrile: (2+2) Cycloadditions with Vinyl Ethers, 1

Vitamin D₃

Synthesis of (1α) -1,25-Dihydroxyvitamin D₃ with a β -Positioned Seven-Carbon Side Chain at C(12), 1842

Wedelia chinensis

A New 30-Noroleanane Saponin from Wedelia chinensis, 1395

Withaphysalins T-W

Further Withaphysalin Derivatives from Acnistus arborescens, 1387

Withasteroids

Further Withaphysalin Derivatives from Acnistus arborescens, 1387

Wittig reaction

New Concise and Efficient Synthesis of Rubrolides C and E *via* Intramolecular *Wittig* Reaction, 852 The First Stereoselective Total Synthesis of a Naturally Occurring Bioactive Diarylheptanoid, (3*R*,6*E*)-1,7-Bis(4-hydroxyphenyl)hept-6-en-3-ol, through Two Different Approaches, 1666

X-Ray crystallography

1,2-Bis(trifluoromethyl)ethene-1,2-dicarbonitrile: (2+2) Cycloadditions with Vinyl Ethers, 1

1,4-Dipolar Cycloaddition Reactions in Ionic Liquids: A Facile Synthesis of 9aH,15H-[1]Benzopyrano[3',2': 3,4]pyrido[2,1-a]isoquinolines (=9aH,15H-Benzo[a][1]benzopyrano[2,3-h]quinolizines), 76

Diastereoisomeric ent-Labdane Diterpenoids from Andrographis paniculata, 120

Facile Synthesis, Single-Crystal Structure, and Biological Evaluation of Novel Pyrazolo[5,1-*d*][1,2,5]triazepin-4-ones, 134

Efficient One-Pot Synthesis of Alkyl 2-(Dialkylamino)-4-phenylthiazole-5-carboxylates and Single-Crystal X-Ray Structure of Methyl 2-(Diisopropylamino)-4-phenylthiazole-5-carboxylate, 339

Regioselective Arylation and Alkynylation of 2,3-Dibromo-1*H*-inden-1-one by *Suzuki–Miyaura* and *Sonogashira* Cross-Coupling Reactions, 469

New Labdane-Type Diterpenoids from *Leonurus heterophyllus*, 618

1,2-Bis(trifluoromethyl)ethene-1,2-dicarbonitrile and Vinyl Ethers: Cyclic Ketene Imines on the Pathway to 1:2 Cycloadducts, 673

Novel Synthesis of 2-Alkylquinolizinium-1-olates and Their 1,3-Dipolar Cycloaddition Reactions with Acetylenes, 737

Synthesis and Anti-HIV Activity of Triazolo-Fused 3',5'-Cyclic Nucleoside Analogues Derived from an Intramolecular *Huisgen* 1,3-Dipolar Cycloaddition, 772

X-Ray Structure Study of an Unusual 13,14,15,16-Tetranorlabdane Derivative Obtained in the Synthesis of (7α) -7,8-Dihydroxy-14,15-dinorlabdane-11,13-dione, 825

Crystal Structure of a Hydrated Molecular 1:2 Complex of Nicotinamide Adenine Dinucleotide (NAD⁺) and Gallic Acid: Polar Alignment of the Phenolic Partner Molecules, 872

A New Alkylation Method for Heptalene-4,5-dicarboxylates and of One of Their Pseudoester Forms, 885 Synthesis and Asymmetric Oxidation of (Caranylsulfanyl)-1*H*-imidazoles, 940

Novel Route to 4-(Adamantan-1-yl)quinoline Derivatives Based on the Friedländer Condensation, 1003

1,2-Oxazine N-Oxides as Catalyst Resting States in *Michael* Additions of Aldehydes to Nitro Olefins Organocatalyzed by α, α -Diphenylprolinol Trimethylsilyl Ether. Preliminary Communication, 1064

A New Alkaloid from the Seeds of Sophora alopecuroides L., 1108

Terpenoids from Loxocalyx urticifolius, 1136

Methyl Pothoscandensate, a New ent-18($4 \rightarrow 3$)-Abeokaurane from Pothos scandens, 1231

Preparation and Characterization of New C₂- and C₁-Symmetric Nitrogen, Oxygen, Phosphorous, and Sulfur Derivatives and Analogs of TADDOL. Part I. Compounds Containing One or Two Sulfur-Containing Substituents and Use in Cu-Catalyzed Enantioselective Conjugate Additions to Cyclic Enones, 1239 Two Unusual Methylidenecyclopropane Glucosides from *Metaxya rostrata* C.PRESL, 1531

Synthesis, Crystal Structures, and Fungicidal Activity of Novel 1,5-Diaryl-3-(glucopyranosyloxy)-1*H*-pyrazoles, 1645

DL-Ribose Crystal Structures: the Glass-Crystal Transformation, 1687

New Aspects of 1,3-Diphosphacyclobutane-2,4-diyls, 1723

The Morita-Baylis-Hillman Reaction of Chiral Highly Oxygenated Cyclopent-2-enones, 1912

Cyclization of (2-Alkenylphenyl)carbonyl Compounds to Polycyclic Arenes Catalyzed by Copper(II) Trifluoromethanesulfonate or Trifluoromethanesulfuric Acid, 1953

Secondary Amine-Catalyzed Asymmetric γ -Alkylation of α -Branched Enals via Dienamine Activation, 1985 Application of *D*-chiro-Inositol as a Chiral Template for the Diels–Alder Reaction, 2026

A One-Pot Organometallic Route from a 4-Alkenylpyridine to a 4,4-Spiro-Linked Ethyl 1,4-Dihydropyridine-1-carboxylate, 2063

{1,1'-(Dimethylsilylene)bis[methanechalcogenolato]}diiron Complexes [2Fe2E(Si)] (E = S, Se, Te) - [FeFe] Hydrogenase Models, 2168

Microwave-Assisted Synthesis of β -Lactams and Cyclo- β -dipeptides, 2218

Synthesis and Reactions of 2-[1-Methyl-1-(pyrrolidin-2-yl)ethyl]-1*H*-pyrrole and Some Derivatives with Aldehydes: Chiral Structures Combining a Secondary-Amine Group with an 1*H*-Pyrrole Moiety as Excellent H-Bond Donor, 2249

cis-trans Peptide-Bond Isomerization in a-Methylproline Derivatives, 2411

Dynamic Phenomena in Self-Complementary [2]-Metallocryptates Probed by Solution ¹³³Cs-NMR. New Insights into Ion Pairing Processes: X-Ray Structure and Solid-State NMR Spectra of a Meandering Species, 2429

2-Amino-1,2,3,6-tetrahydro-6-oxocyclopenta[c]fluorene-2-carboxylic Acid (FlAib), a Completely Rigidified, Fluoren-9-one-Based α-Amino Acid, 2446

Carboboration Reactions of 1,2-Bis[(diarylphosphino)ethynyl]benzenes with Tris(pentafluorophenyl)borane, 2515

2,3,10,11-Tetrahydroxytetraphenylene and Its Application in Molecular Recognition, 2604

Xyloallenoides A and A1

Total Synthesis, Absolute Configuration, and Biological Activity of Xyloallenoide A, 973

Yalongenes A and B

Yalongenes A and B, Two New Cembranoids with Cytoprotective Effects from the Hainan Soft Coral Sarcophyton trocheliophorum MARENZELLER, 235

Yamaguchi esterification

A Convergent Synthesis of a Twelve-Membered Macrolide Natural Product, (6*R*,12*S*)-6-Hydroxy-12-methyl-1-oxacyclododecane-2,5-dione, 1623

Yamaguchi oxirane opening

Total Synthesis of Umuravumbolide, 1593

Ylides

(2-Bromoethyl)sulfonium Trifluoromethanesulfonates in Stereoselective Annulation Reactions for the Formation of Fused Bicyclic Epoxides and Aziridines, 2384

Ypsilandra thibetica

New Minor Spirostane Glycosides from Ypsilandra thibetica, 1087

Ypsilandrosides M – O

New Minor Spirostane Glycosides from Ypsilandra thibetica, 1087

Zanthoxylum rigidum

A New Cyclopeptide and Other Constituents from the Leaves of Zanthoxylum rigidum HUMB. & BONPL. ex WILLD. (Rutaceae), 935

Zinc complexes

A Functionalized Spiro[chlorin-porphyrin]-Type 'Dimer' Dizinc Complex from Rapid [4+2] Self-cycloaddition of a Conjugated [$\beta_{\beta}\beta$ '-Bis(methylene)porphyrinato]zinc, 211