

## Subject Index of Volume 581

- Antisense oligonucleotides  
Nucleic acids and nucleosides containing carboranes, 156
- Antiviral  
Nucleic acids and nucleosides containing carboranes, 156
- Aromatic heterocycle  
Boratabenzenes: from chemical curiosities to promising catalysts, 92
- Asymmetric hydroboration  
Chiral synthesis via organoboranes. 45. Asymmetric hydroboration of 1-cyclopentenol derivatives using diisopinocampheylborane. Synthesis of optically active cyclopentane-1,2-diol derivatives of high optical purity, 116
- Asymmetric synthesis  
Chiral synthesis via organoboranes. 45. Asymmetric hydroboration of 1-cyclopentenol derivatives using diisopinocampheylborane. Synthesis of optically active cyclopentane-1,2-diol derivatives of high optical purity, 116  
The preparation of optically active boronic ester substituted  $\Delta^2$ -isoxazolines, 87
- Block copolymer  
Borane-containing polyolefins: synthesis and applications, 176
- BNCT  
Boronated thiophenols: a preparation of 4-mercaptophenylboronic acid and derivatives, 82  
Nucleic acids and nucleosides containing carboranes, 156
- Boratabenzenes  
Boratabenzenes: from chemical curiosities to promising catalysts, 92
- Boron  
Functional group compatibilities in boronic ester chemistry, 51  
Generation of *o*-quinodimethanes via the electrocyclic reaction of (4Z)-1,2,4,6,7-octapentaenes derived from the organoborate complexes and their subsequent reactions, 108  
Identification, development, synthesis and evaluation of boron-containing nucleosides for neutron capture therapy, 150  
New perspectives for boronic esters in macrocyclic chemistry, 70  
Nucleic acids and nucleosides containing carboranes, 156
- Boronates  
Application of 1,2:5,6-di-*O*-cyclohexylidene-D-mannitol as the chiral director in Matteson's asymmetric homologation, 66  
Boronated thiophenols: a preparation of 4-mercaptophenylboronic acid and derivatives, 82
- Boron cages  
C-substituted bis(dicarbollide) metal compounds as sensors and extractants of radionuclides from nuclear wastes, 188
- Boron complexes  
The tetrahedral character of the boron atom newly defined—a useful tool to evaluate the N→B bond, 129
- Boron deltahedra  
Organic derivatives of *closo*-boranes: a new class of liquid crystal materials, 28
- Boronic acid  
Boronated thiophenols: a preparation of 4-mercaptophenylboronic acid and derivatives, 82
- Boronic acids  
Addition reactions of protonic reagents to optically active 2-phenyl-1,3,2-oxazaborolines, 122
- Boronic esters  
Functional group compatibilities in boronic ester chemistry, 51  
New perspectives for boronic esters in macrocyclic chemistry, 70  
The preparation of optically active boronic ester substituted  $\Delta^2$ -isoxazolines, 87
- Boron neutron capture therapy  
The synthesis of a carborane gadolinium–DTPA complex for boron neutron capture therapy, 170
- Carbon-containing substituents  
The formation of boron–carbon bonds to *closo*-decaborate(2–) and *closo*-dodecaborate(2–), 45
- Carborane  
The synthesis of a carborane gadolinium–DTPA complex for boron neutron capture therapy, 170
- Carboranes  
Nucleic acids and nucleosides containing carboranes, 156  
Synthesis and characterization of a new dicage *ortho*-carborane with a supramolecular structure directed by intermolecular C–H<sub>carborane</sub>⋯O bonds, 39
- Catalysts  
Boratabenzenes: from chemical curiosities to promising catalysts, 92
- Chelating reagent  
The synthesis of a carborane gadolinium–DTPA complex for boron neutron capture therapy, 170
- Chiral cyclopentane-1,2-diols  
Chiral synthesis via organoboranes. 45. Asymmetric hydroboration of 1-cyclopentenol derivatives using diisopinocampheylborane. Synthesis of optically active cyclopentane-1,2-diol derivatives of high optical purity, 116
- Chirality  
Addition reactions of protonic reagents to optically active 2-phenyl-1,3,2-oxazaborolines, 122
- Chirally modified allylboron reagents  
Enantioselective synthesis of optically active homoallylamines by allylboration of *N*-diisobutylaluminum imines, 103
- Coordinative N→B bond  
The tetrahedral character of the boron atom newly defined—a useful tool to evaluate the N→B bond, 129
- Copper-catalyzed decomposition  
Copper-catalyzed sodium tetraphenylborate, triphenylborane, diphenylborinic acid and phenylboronic acid decomposition kinetic studies in aqueous alkaline solutions, 194
- Crystal engineering  
Synthesis and characterization of a new dicage *ortho*-carborane with a supramolecular structure directed by intermolecular C–H<sub>carborane</sub>⋯O bonds, 39
- Cycloadditions  
The preparation of optically active boronic ester substituted  $\Delta^2$ -isoxazolines, 87

- Dicarbollides  
C-substituted bis(dicarbollide) metal compounds as sensors and extractants of radionuclides from nuclear wastes, 188
- Diisopinocampheylborane  
Chiral synthesis via organoboranes. 45. Asymmetric hydroboration of 1-cyclopentenol derivatives using diisopinocampheylborane. Synthesis of optically active cyclopentane-1,2-diol derivatives of high optical purity, 116
- 1,2:5,6-Di-*O*-cyclohexylidene-D-mannitol  
Application of 1,2:5,6-di-*O*-cyclohexylidene-D-mannitol as the chiral director in Matteson's asymmetric homologation, 66
- Diphenylborinic acid  
Copper-catalyzed sodium tetraphenylborate, triphenylborane, diphenylborinic acid and phenylboronic acid decomposition kinetic studies in aqueous alkaline solutions, 194
- Electrocyclization  
Generation of *o*-quinodimethanes via the electrocyclic reaction of (4*Z*)-1,2,4,6,7-octapentaenes derived from the organoborate complexes and their subsequent reactions, 108
- Enantioselective synthesis  
Enantioselective synthesis of optically active homoallylamines by allylboration of *N*-diisobutylaluminum imines, 103
- Enol-ethers  
Chiral synthesis via organoboranes. 45. Asymmetric hydroboration of 1-cyclopentenol derivatives using diisopinocampheylborane. Synthesis of optically active cyclopentane-1,2-diol derivatives of high optical purity, 116
- Ephedrine  
Addition reactions of protonic reagents to optically active 2-phenyl-1,3,2-oxazaborolines, 122
- Friedel–Crafts  
The formation of boron–carbon bonds to *closo*-decaborate(2–) and *closo*-dodecaborate(2–), 45
- Functional groups  
Functional group compatibilities in boronic ester chemistry, 51
- Gadolinium  
The synthesis of a carborane gadolinium–DTPA complex for boron neutron capture therapy, 170
- Graft copolymer  
Borane-containing polyolefins: synthesis and applications, 176
- Half- and full-sandwich  
Recent advances in the chemistry of small cage Main Group metallocarboranes, 13
- Halogenation  
The formation of boron–carbon bonds to *closo*-decaborate(2–) and *closo*-dodecaborate(2–), 45
- Heterocycles  
Addition reactions of protonic reagents to optically active 2-phenyl-1,3,2-oxazaborolines, 122
- Homologation  
Application of 1,2:5,6-di-*O*-cyclohexylidene-D-mannitol as the chiral director in Matteson's asymmetric homologation, 66
- Hydrogen bonding  
Synthesis and characterization of a new dicage *ortho*-carborane with a supramolecular structure directed by intermolecular C–H<sub>carborane</sub>⋯O bonds, 39
- Isoxazolines  
The preparation of optically active boronic ester substituted  $\Delta^2$ -isoxazolines, 87
- Kinetics  
Copper-catalyzed sodium tetraphenylborate, triphenylborane, diphenylborinic acid and phenylboronic acid decomposition kinetic studies in aqueous alkaline solutions, 194
- Liquid crystals  
Organic derivatives of *closo*-boranes: a new class of liquid crystal materials, 28
- Macrocyclic chemistry  
New perspectives for boronic esters in macrocyclic chemistry, 70
- Main Group complexes  
Recent advances in the chemistry of small cage Main Group metallocarboranes, 13
- Mercapto  
Boronated thiophenols: a preparation of 4-mercaptophenylboronic acid and derivatives, 82
- Mesogens  
Organic derivatives of *closo*-boranes: a new class of liquid crystal materials, 28
- Metal extractants  
C-substituted bis(dicarbollide) metal compounds as sensors and extractants of radionuclides from nuclear wastes, 188
- Metallocarboranes  
Recent advances in the chemistry of small cage Main Group metallocarboranes, 13
- Small carborane ligands as spectators and as players, 1
- Metallocenes  
Borane-containing polyolefins: synthesis and applications, 176
- Metal sensors  
C-substituted bis(dicarbollide) metal compounds as sensors and extractants of radionuclides from nuclear wastes, 188
- N*-Diisobutylaluminum imine  
Enantioselective synthesis of optically active homoallylamines by allylboration of *N*-diisobutylaluminum imines, 103
- Nematic phases  
Organic derivatives of *closo*-boranes: a new class of liquid crystal materials, 28
- Neutron capture  
Identification, development, synthesis and evaluation of boron-containing nucleosides for neutron capture therapy, 150
- Nitrile oxides  
The preparation of optically active boronic ester substituted  $\Delta^2$ -isoxazolines, 87
- N*-Metalloimine  
Enantioselective synthesis of optically active homoallylamines by allylboration of *N*-diisobutylaluminum imines, 103
- Nuclear wastes  
C-substituted bis(dicarbollide) metal compounds as sensors and extractants of radionuclides from nuclear wastes, 188
- Nucleosides  
Identification, development, synthesis and evaluation of boron-containing nucleosides for neutron capture therapy, 150
- Nucleic acids and nucleosides containing carboranes, 156
- Optically active homoallylamine  
Enantioselective synthesis of optically active homoallylamines by allylboration of *N*-diisobutylaluminum imines, 103
- o*-Quinodimethanes  
Generation of *o*-quinodimethanes via the electrocyclic reaction of (4*Z*)-1,2,4,6,7-octapentaenes derived from the organoborate complexes and their subsequent reactions, 108
- Organoborates  
Generation of *o*-quinodimethanes via the electrocyclic reaction of (4*Z*)-1,2,4,6,7-octapentaenes derived from the organoborate complexes and their subsequent reactions, 108
- Phenylboronic acid  
Copper-catalyzed sodium tetraphenylborate, triphenylborane, diphenylborinic acid and phenylboronic acid decomposition kinetic studies in aqueous alkaline solutions, 194
- 2,6-Pyridinedimethanol, 2-salicylideneaminoethanol  
New perspectives for boronic esters in macrocyclic chemistry, 70

## Reaction path

The tetrahedral character of the boron atom newly defined—a useful tool to evaluate the N→B bond, 129

## Sandwich compounds

Small carborane ligands as spectators and as players, 1

## Sigmatropic shift

Selective reactions of minor tautomers among allylic type triorganoboranes, 98

## Sodium tetraphenylborate

Copper-catalyzed sodium tetraphenylborate, triphenylborane, diphenylborinic acid and phenylboronic acid decomposition kinetic studies in aqueous alkaline solutions, 194

## 'Spectator' ligand

Small carborane ligands as spectators and as players, 1

## Structural lability

Selective reactions of minor tautomers among allylic type triorganoboranes, 98

## Supramolecular

Synthesis and characterization of a new dicage *ortho*-carborane with a supramolecular structure directed by intermolecular C-H<sub>carborane</sub>⋯O bonds, 39

## Tetrahedral character

The tetrahedral character of the boron atom newly defined—a useful tool to evaluate the N→B bond, 129

## Thioethers

Boronated thiophenols: a preparation of 4-mercaptophenylboronic acid and derivatives, 82

## Triorganoboranes

Selective reactions of minor tautomers among allylic type triorganoboranes, 98

## Triphenylborane

Copper-catalyzed sodium tetraphenylborate, triphenylborane, diphenylborinic acid and phenylboronic acid decomposition kinetic studies in aqueous alkaline solutions, 194

## Van der Waals interactions

The tetrahedral character of the boron atom newly defined—a useful tool to evaluate the N→B bond, 129

## X-ray crystallography

New perspectives for boronic esters in macrocyclic chemistry, 70

## Ziegler–Natta catalyst

Borane-containing polyolefins: synthesis and applications, 176

*(Z)*-1,2,4,6,7-Octapentaenes

Generation of *o*-quinodimethanes via the electrocyclic reaction of (*Z*)-1,2,4,6,7-octapentaenes derived from the organoborate complexes and their subsequent reactions, 108