

CARBORANE- AND POLYBORON CLUSTER- RELATED PUBLICATIONS APPEARING IN 2019

CARBORANES

o-Carborane

Transition metal-induced B-H functionalization of *o*-carborane

Zhang, Xiaolei; Yan, Hong, *Coord. Chem. Rev.* **2019**, *378*, 466 (review)

Electronic Effect-Guided, Palladium-Catalyzed Regioselective B-H Activation and Multistep Diarylation of *o*-Carboranes with Aryl Iodides

Wei-Hua Mu, Wen-Zhu Liu, Rui-Jiao Cheng, and De-Cai Fang, *ACS Omega* **2019**, *4*, 465

Metal-catalyzed cross-coupling chemistry with polyhedral boranes

Dziedzic, Rafal M.; Spokoiny, Alexander M., *Chem. Commun.* **2019**, *55*, 430 (review)

Electronic versus steric control in palladium complexes of carboranyl phosphine-iminophosphorane ligands

Rodriguez-Rey, Jose Luis; Esteban-Gomez, David; Platas-Iglesias, Carlos; et al., *Dalton Trans.* **2019**, *48*, 486

Excited State Characterization of Carborane-Containing Poly(Dihexyl Fluorene)s

Kara Lindsey Martin, Aditi Krishnamurthy, John Strahan, Elizabeth R Young, and Kenneth R. Carter, *J. Phys. Chem. A* **2019**, *123*, 1701

Magnetic Properties of Co(II) Complexes with Polyhedral Carborane Ligands

Ofelia B. Oña, Diego R. Alcoba, Gustavo E. Massaccesi, Alicia Torre, Luis Lain, Juan I. Melo, Josep M. Oliva-Enrich, and Juan E. Peralta, *Inorg. Chem.* **2019**, *58*, 2550

Improved synthesis of icosahedral carboranes containing exopolyhedral B-C and C-C bonds

Anderson, Kierstyn P.; Mills, Harrison A.; Mao, Chantel; et al., *Tetrahedron* **2019**, *75*, 187

Trinuclear Gold-Carborane Cluster as a Host Structure

Aullon, Gabriel; Laguna, Antonio; Filippov, Oleg A.; et al., *Eur. J. Inorg. Chem.* **2019**, *18*

Copper catalyzed/mediated direct B-H alkenylation/alkynylation in carboranes

Chen, Yu; Au, Yik Ki; Quan, Yangjian; et al., *Sci. China – Chemistry* **2019**, *62*, 74

Highly-efficient solid-state emission of tethered anthracene-*o*-carborane dyads and their visco- and thermo-chromic luminescence properties

Wu, Xueyan; Guo, Jixi; Jia, Wei; et al., *Dyes and Pigments* **2019**, *162*, 855

Effect of Planarity of Aromatic Rings Appended to *o*-Carborane on Photophysical Properties: A Series of *o*-Carboranyl Compounds Based on 2-Phenylpyridine- and 2-(Benzo[b]thiophen-2-yl)pyridine

Jin, Hyomin; Kim, Seonah; Bae, Hye Jin; et al., *Molecules* **2019**, *24*, Article number 201

Manganese(III) acetate-mediated activation of C-H bonds of weak CH-acids; addition of *o*-carborane, its derivatives, and some other CH-acids to [60]-fullerene

Tumanskii, Boris L.; Sabirov, Denis S.; Solodovnikov, Stanislav P.; et al., *Dalton Trans.* **2019**, *48*, 2046

Syntheses and Structures of Group 10 Metal POCOP Pincer Complexes Bearing A Mercapto-*o*-carborane Auxiliary Ligand

Zhang, Jie; Cao, Bula; Ding, Yazhou; et al., *ChemistrySelect* **2019**, *4*, 1292

A facile approach for the synthesis of *nido*-carborane fused oxazoles via one pot deboronation/cyclization of 9-amide-*o*-carboranes

Zhang, Cai-Yan; Cao, Ke; Xu, Tao-Tao; et al., *Chem. Commun.* **2019**, *55*, 830

Catalytic Regioselective Cage B(8)-H Arylation of *o*-Carboranes via "Cage-Walking" Strategy

Hairong Lyu, Jie Zhang, Jingting Yang, Yangjian Quan, and Zuowei Xie, *J. Am. Chem. Soc.* **2019**, *141*, 4219

Exceptionally Long C-C Single Bonds in Diamino-*o*-carborane as Induced by Negative Hyperconjugation

Li, Junxia; Pang, Ronglin; Li, Zhifang; et al., *Angew. Chem. Internat. Ed.* **2019**, *58*, 1397

N-Heterocyclic Carbene Complexes of Copper, Nickel, and Cobalt

Andreas A. Danopoulos, Thomas Simler, and Pierre Braunstein, *Chem. Rev.* **2019**, *119*, 3730

Pushing carbon-carbon bonds to extremes

Laura Howes, *C&EN Global Enterp.* **2019**, *97*, 24 (review)

Aggregation-Induced Electrochemiluminescence of Carboranyl Carbazoles in Aqueous Media

Wei, Xing; Zhu, Meng-Jiao; Cheng, Zhe; et al., *Angew. Chem. Int. Ed.* **2019**, *58*, 3162

Synthesis, catalysis, and DFT study of a ruthenium carbene complex bearing a 1,2-dicarbododecaborane (12)-1,2-dithiolate ligand

Wang, Tao; Wu, Botao; Guo, Weijie; et al., *Dalton Trans.* **2019**, *48*, 2646

The first example of a "click" reaction with a carboranyl azide and an olefin

Chauhan, Uday B.; Tomich, Anton W.; Lavallo, Vincent, *Tetrahedron* **2019**, *75*, 1323

2-Phenylpyridine- and 2-(benzo[b]thiophen-2-yl)pyridine-based o-carboranyl compounds: impact of the structural formation of aromatic rings on photophysical properties

Jin, Hyomin; Bae, Hye Jin; Kim, Seonah; et al., *Dalton Trans.* **2019**, *48*, 1467

Molecular doping: accessing the first carborane-substituted 1,2,3-triphospholanide via insertion of P⁻ into a P-P bond

Coburger, Peter; Grutzmacher, Hansjorg; Hey-Hawkins, Evamarie, *Chem. Commun.* **2019**, *55*, 3187

Towards red-light o-carborane derivatives with both aggregation induced emission and thermally activated delayed fluorescence combining quantum chemistry calculation with molecular dynamics simulation

Duan, Ying-Chen; Gao, Ying; Geng, Yun; et al., *J. Mater. Chem. C*, **2019**, *7*, 2699

Monolayer Behaviors of Carborane Poly(Ethylene Glycol) Complexes

Kim, Sunhye; Yang, Jingying; Jang, Eunsuk; et al., *Bull. Korean Chem. Soc.* **2019**, *40*, 230

Icosahedral Carbaboranes with Peripheral Hydrogen-Chalcogenide Groups: Structures from Gas Electron Diffraction and Chemical Shielding in Solution

Base, Tomas; Holub, Josef; Fanfrik, Jindrich; et al., *Chem. Eur. J.* **2019**, *25*, 2313

BODIPY-ortho-carborane-tetraphenylethylene triad: synthesis, characterization, and properties

Nar, Ilgin; Atsay, Armagan; Buyruk, Ali; et al., *New J. Chem.* **2019**, *43*, 4471

Carborane-Substituted Bis(phosphino)hydrazines: Selective Formation of Six- and Twelve-Membered P,N Heterocycles

Maulana, Ilham; Loennecke, Peter; Hey-Hawkins, Evamarie, *Eur. J. Inorg. Chem.* **2019**, 1552

Tuning of the gold work function by carborane films studied using density functional theory

Hladik, Martin; Vetushka, Aliaksei; Fejfar, Antonin; et al., *Phys. Chem. Chem. Phys.* **2019**, *21*, 6178

Synthesis of 9-borafluorene analogues featuring a three-dimensional 1,10-bis(o-carborane) backbone

Yruegas, Sam; Axtell, Jonathan C.; Kirlikovali, Kent O.; et al., *Chem. Commun.* **2019**, *55*, 2892

High thermally stable thermosetting polyimides derived from a carborane-containing tetramine

Wu, Yuane; Feng, Chen; Yang, Jiping; et al., *High Performance Polymers* **2019**, *31*, 548

Synthesis and Structural Characterization of Two New Main Group Element Carboranylaminidates

Liebing, Phil; Harmgarth, Nicole; Zoerner, Florian; et al., *Inorganics* **2019**, *7*, Article number 41

Mercury derivatives of polyhedral boranes, carboranes, and metallocarboranes

Sivaev, I. B.; Stogniy, M. Yu., *Russ. Chem. Bull.* **2019**, *68*, 217 (review)

Synthesis of chloro(organo)silylmethyl-o-carboranes from organochlorosilanes and bromomagnesiummethyl-o-carboranes

Izmaylov, B. A.; Vasnev, V. A.; Markova, G. D., *Russ. Chem. Bull.* **2019**, *68*, 121

Structural Characterization of a Boron(III) η^2 - σ -Silane-Complex

Yizhen Liu, Bo Su, Weishi Dong, Zhen Hua Li*, Huadong Wang*, *J. Am. Chem. Soc.* **2019**, *141*, 8358

Improvement of Solid-State Excimer Emission of the Aryl-Ethynyl-*o*-Carborane Skeleton by Acridine Introduction
Ochi, Junki; Tanaka, Kazuo; Chujo, Yoshiki, *Eur. J. Org. Chem.* **2019**, 2984

Synthesis and characterization of Cp*Ir-dithiolene-*o*-carborane phosphine complexes: A continuous investigation of B-H interaction

Cao, Hou-ji; Dai, Huimin; Zhang, Xiaolei; et al., *Molec. Phys.* **2019**, 117, 1287

Nucleophilic substitution: a facile strategy for selective B-H functionalization of carboranes

Quan, Yangjian; Tang, Cen; Xie, Zuowei, *Dalton Trans.* **2019**, 48, 7494

A New Approach to the Synthesis of Carboranylmethylsiloxanes

Izmailov, B. A.; Vasnev, V. A.; Markova, G. D., *Doklady Chem.* **2019**, 486, 119

Synthesis, structure and DFT calculations of 1,2-N-substituted *o*-carboranes

Pang, Ronglin; Li, Junxia; Cui, Zhongzheng; et al., *Dalton Trans.* **2019**, 48, 7242

Catalytic Cascade Dehydrogenative Cross-Coupling of BH/CH and BH/NH: One-Pot Process to Carborano-Isoquinolinone

Yik Ki Au, Hairong Lyu, Yangjian Quan, Zuowei Xie, *J. Am. Chem. Soc.* **2019**, 141, 12855

Catalytic Oxidative Dehydrogenative Coupling of Cage B-H/B-H Bonds for Synthesis of Bis(*o*-carborane)s

Ji Wu, Ke Cao*, J. Cai-Yan Zhang, Tao-Tao Xu, Li-Fang Ding, Bo Li, Junxiao Yang

Organic Letters **2019**, 21, 5986

Rhodium(i) complexes with carborane-substituted P,N ligands: investigations of electronic structure and dynamic behaviour

Coburger, Peter; Kahraman, Gizem; Straube, Axel; et al., *Dalton Trans.* **2019**, 48, 9625

Controlled functionalization of *o*-carborane via transition metal catalyzed B-H activation

Quan, Yangjian; Xie, Zuowei, *Chem. Soc. Rev.* **2019**, 48, 3660

Computational Investigation of Nickel-Mediated B-H Activation and Regioselective Cage B-C(sp²) Coupling of *o*-Carborane

Mu, Wei-Hua; Liu, Wen-Zhu; Cheng, Rui-Jiao; et al., *Catalysts* **2019**, 9, Article number 548

Icosahedral carboranes as scaffolds for congested regioselective polyaryl compounds: the distinct distance tuning of C-C and its antipodal B-B

Kelemen, Zsolt; Pepiol, Ariadna; Lupu, Marius; et al., *Chem. Commun.* **2019**, 55, 8927

Coordination-driven self-assembly of Cp*Rh-Based Rectangles, Cages and Their Host-Guest Binding Study

Lin, Lin; Lin, Yue-Jian; Jin, Guo-Xin, *Appl. Organomet. Chem.* **2019**, 33, e4926

Solid-State Photochromism by Molecular Assembly of Bis-*o*-carboranyl Siloles

Cho, Yang-Jin; Kim, So-Yoen; Lee, Jie-Won; et al., *Chem. Eur. J.* **2019**, 25, 8149

Arene-Ruthenium Complexes of 1,1'-Bis(*ortho*-carborane): Synthesis, Characterization, and Catalysis

Rebekah J. Jeans, Antony P. Y. Chan, Laura E. Riley, James Taylor, Georgina M. Rosair, Alan J. Welch*, Igor B. Sivaev, *Inorg. Chem.* **2019**, 58, 11751

Transition-metal-free direct nucleophilic substitution of carboranyl lithium and 2-halopyridines

Lu, Ju-You; Zhao, Bo; Du, Yongmei; et al., *Org. Biomolec. Chem.* **2019**, 17, 7438

How long a C-C bond can be? An example of extraordinary long C-C single bond in 1,2-diarylamino-*o*-carborane

Wu, Yile; Zhang, Jie; Xie, Zuowei, *Chinese Chem. Lett.* **2019**, 30, 1530

Reactivity Modes of Cp*M-Type Half-Sandwich Dichalcogenolate Complexes with 2,6-Disubstituted Aryl Azides: The Effects of the Metal Center, Chalcogen, and Ligand Moiety on Product Formation

Zhong, Wei; Liu, Xiaoming; Zhu, Hailiang; et al., *ACS Omega* **2019**, 4, 12719

A self-catalyzed reaction of 1,2-dibenzoyl-*o*-carborane with hydrosilanes - formation of new hydrofuranes

Jaiswal, Kuldeep; Volodarsky, Solomon; Kampel, Vladimir; et al., *Chem. Commun.* **2019**, 55, 10448

Chalcogen Bonding due to the Exo-Substitution of Icosahedral Dicarborane Fanfrlik, Jindrich; Hnyk, Drahomir; Hobza, Pavel, *Molecules* **2019**, *24*, Article number 2657

Rh-Catalyzed Regioselective Dialkylation of Cage B–H bonds in o-Carboranes: Oxidative Heck Reactions via an Enol Isomerization

Qian Wang, Song Tian, Chuyi Zhang, Jiangwei Li, Zhixuan Wang, Yongmei Du, Ling Zhou, Jian Lu*, *Organic Letters* **2019**, *21*, 8018

The Marriage of Carborane with Chalcogen Atoms: Nonconjugation, σ - π Conjugation, and Intramolecular Charge Transfer

Xiaodong Yang, Bingjie Zhang, Sikun Zhang, Guoping Li, Letian X, Zhijun Wang, Pengfei Li, Yanfeng Zhang, Zishun Liu, Gang He*, *Organic Letters* **2019**, *21*, 8285

Rhodium-Catalyzed Amidation of the Cage B(4)–H Bond in o-Carboranes with Dioxazolones by Carboxylic Acid-Assisted B(4)–H Bond Activation

Yonghyeon Baek, Suhui Kim, Jeong-Yu Son, Kooyeon Lee, Dongwook Kim, Phil Ho Lee, *ACS Catalysis* **2019**, *9*, 10418

The stability of group 10 metal POCOP pincer complexes: decomposition/reconstruction pathways of the pincer backbone

Cao, Bula; Ding, Yazhou; Fang, Fei; et al., *Dalton Trans.* **2019**, *48*, 13760

The Impact of Huge Structural Changes on Electron Transfer and Measurement of Redox Potentials: Reduction of *ortho*-12-Carborane

John R. Miller, Andrew R. Cook, Ludmila Šimkov, Lubomir Pospisi, Jiri Ludvik, Josef Michl, *J. Phys. Chem. B* **2019**, *123*, 9668

On the Basicity of Carboranylphosphines

Amanda Benton, Derek J. Durand, Zachariah Copeland, James D. Watson, Natalie Fey*, Stephen M. Mansell*, Georgina M. Rosair, Alan J. Welch*, *Inorg. Chem.* **2019**, *58*, 14818

Synthesis of o-carborane-functionalized metal-organic frameworks through ligand exchanges for aggregation-induced emission in the solid state

Choi, Sangdon; Lee, Ha-Eun; Ryu, Chan Hee; et al., *Chem. Commun.* **2019**, *55*, 11844

Old Key Opens the Lock in Carborane: The in Situ NHC-Palladium Catalytic System for Selective Arylation of B(3,6)–H Bonds of o-Carboranes via B–H Activation

Tao-Tao Xu, Ke Cao*, Cai-Yan Zhang, Ji Wu, Li-Fang Ding, Junxiao Yang, *Organic Letters* **2019**, *21*, 9276

Iron(II) Clathrochelate with Terminal Triple C \equiv C Bond and Its Carboranoclathrochelate Derivative with a Flexible Linker between the Polyhedral Cages: Synthesis and X-Ray Structure

Zelinskii, Genrikh E.; Belov, Alexander S.; Vologzhanina, Anna V.; et al., *ChemistrySelect* **2019**, *4*, 11572

Facile synthetic route to fluoroalkylated carboranes by copper-catalyzed reaction of fluoroalkane sulfonyl bromides with allyl carboranes

Ol'shevskaya, Valentina A.; Tyutyunov, Andrey A.; Ibragimova, Lily F.; et al., *Polyhedron* **2019**, *171*, 508

Palladium catalyzed/counter ion tuned selective methylation of o-carboranes

Cao, Ke; Zhang, Cai-Yan; Xu, Tao-Tao; et al., *J. Organomet. Chem.* **2019**, *902*, Article Number UNSP 120956

Theoretical insights into the effect of ligands on platinum(ii) complexes with a bidentate bis(o-carborane) ligand structure

Zhao, Ancong; Cai, Wanlin; Yan, Xi; et al., *Photochem. Photobiolog. Sci.* **2019**, *18*, 2421

Planarity of terphenyl rings possessing o-carborane cages: turning on intramolecular-charge-transfer-based emission

So, Hyunhee; Kim, Jea Ho; Lee, Ji Hye; et al., *Chem. Commun.* **2019**, *55*, 14518

Spirobifluorene-Based o-Carboranyl Compounds: Insights into the Rotational Effect of Carborane Cages on Photoluminescence

Kim, Seonah; Lee, Ji Hye; So, Hyunhee; et al., *Chem. Eur. J.* **2019**, *25*, published online Dec. 10, 2019

Photophysical Properties of Spirobifluorene-Based o-Carboranyl Compounds Altered by Structurally Rotating the Carborane Cages

Kim, Seonah; So, Hyunhee; Lee, Ji Hye; et al., *Molecules* **2019**, *24*, 4135

***m*-Carborane**

Iridium-induced regioselective B-H and C-H activations at azo-substituted *m*-carboranes: facile access to polynuclear complexes

Gao, Yang; Guo, Shu-Ting; Cui, Peng-Fei; et al., *Chem. Commun.* **2019**, 55, 210

Improved synthesis of icosahedral carboranes containing exopolyhedral B-C and C-C bonds

Anderson, Kierstyn P.; Mills, Harrison A.; Mao, Chantel; et al., *Tetrahedron* **2019**, 75, 187

Reaction of a ruthenium B-carboranyl hydride complex and BH₃(SMe₂): Selective formation of a pincer-supported metallaborane LRu(B₃H₈)

Eleazer, Bennett J.; Smith, Mark D.; Peryshkov, Dmitry, V., *Tetrahedron* **2019**, 75, 1471

Multidimensional high-resolution NMR structural characterization of a carborane cluster derivative: The case of 2-amino-3-(1,7-dicarba-*c*loso-dodecaboranyl-1-thio)propanoic acid

He, Tianyu; Musah, Rabi A., *Polyhedron* **2019**, 163, 171

Mercury derivatives of polyhedral boranes, carboranes, and metallacarboranes

Sivaev, I. B.; Stogniy, M. Yu., *Russ. Chem. Bull.* **2019**, 68, 217 (review)

A New Approach to the Synthesis of Carboranymethylsiloxanes

Izmailov, B. A.; Vasnev, V. A.; Markova, G. D., *Doklady Chem.* **2019**, 486, 119

Metalloradicals Supported by a *meta*-Carborane Ligand

Cui, Peng-Fei; Gao, Yang; Guo, Shu-Ting; et al., *Angew. Chem. Internat. Ed.* **2019**, 58, 8129

Off-Cycle Processes in Pd-Catalyzed Cross-Coupling of Carboranes

Rafal M. Dziejdzic, Jonathan C. Axtell, Arnold L. Rheingold, Alexander M. Spokoyny*, *Org. Process Res. Development* **2019**, 23, 8, 1638

A Reversible Phase Transition of 2D Coordination Layers by B-H center dot center dot center dot Cu(II) Interactions in a Coordination Polymer

Gan, Lei; Fonquernie, Pol G.; Light, Mark E.; et al., *Molecules* **2019**, 24, Article Number 3204

On the Basicity of Carboranylphosphines

Amanda Benton, Derek J. Durand, Zachariah Copeland, James D. Watson, Natalie Fey*, Stephen M. Mansell*, Georgina M. Rosair, Alan J. Welch*, *Inorg. Chem.* **2019**, 58, 14818

Facile synthetic route to fluoroalkylated carboranes by copper-catalyzed reaction of fluoroalkane sulfonyl bromides with allyl carboranes

Ol'shevskaya, Valentina A.; Tyutyunov, Andrey A.; Ibragimova, Lily F.; et al., *Polyhedron* **2019**, 171, 508

Polymers with Regular Alternation of 1,7-Bis[(dimethyl)silylmethylene]-*m*-carborane and Diorganosiloxane Units

Izmaylov, B. A.; Vasnev, V. A.; Markova, G. D., *Doklady Chem.* **2019**, 488, 249

***p*-Carborane**

Mercury derivatives of polyhedral boranes, carboranes, and metallacarboranes

Sivaev, I. B.; Stogniy, M. Yu., *Russ. Chem. Bull.* **2019**, 68, 217 (review)

Electronic states of 3D aromatic molecules on Au(111) surfaces: adsorption of carboranethiol

Aoki, Takuto; Nakahama, Yuta; Ikeda, Tadao; et al., *J. Mater. Sci.* **2019**, 54, 10249

***C*loso-CB₁₁H₁₂⁻ Derivatives**

Nonclassical Applications of *c*loso-Carborane Anions: From Main Group Chemistry and Catalysis to Energy Storage

S. P. Fisher, A. W. Tomich, S. O. Lovera, J. F. Kleinsasser, J. Guo, M. J. Asay, H. M. Nelson, and V. Lavallo
Chem. Rev. **2019**, 119, 8262 (review)

Teaching an old dog new tricks: new directions in fundamental and applied *closo*-carborane anion chemistry

Fisher, Steven P.; Tomich, Anton W.; Guo, Juchen; et al., *Chem. Commun.* **2019**, 55, 1684

A Comparative Study of Mg(CB₁₁H₁₂)₂ and Mg(TFSI)₂ at the Magnesium/Electrolyte Interface

Rahul Jay, Anton W. Tomich, Jian Zhang, Yifan Zhao, Audrey De Gorostiza, Vincent Lavallo, and Juchen Guo
ACS Appl. Mater. Interfaces **2019**, 11, 11414

Carborane superhalide bases and their conjugate Bronsted-Lowry Superacids: Electron binding energies and Dyson orbitals

Diaz-Tinoco, Manuel; Ortiz, J. V., *Chem. Phys.* **2019**, 521, 77

Simple and scalable synthesis of the carborane anion CB₁₁H₁₂⁻

Toom, Lauri; Kutt, Agnes; Leito, Ivo, *Dalton Trans.* **2019**, 48, 7499

Peraryl-X-onium ions of nitrogen and oxygen

Lu, Mengsi; Allemann, Oliver; Xu, Jun; et al., *Org. Chem. Frontiers* **2019**, 6, 2640

Phase Transitions and Crystal Structures of Ionic Plastic Crystals Comprising Quaternary Ammonium Cations and Carborane Anion

Kimata, Hironori; Sumitani, Ryo; Mochida, Tomoyuki, *Chem. Lett.* **2019**, 48, 859

Characterization of hydrogen-substituted silylium ions in the condensed phase

Wu, Qian; Irran, Elisabeth; Mueller, Robert; et al., *Science* **2019**, 365, 168

Recent Progress in the Synthesis of the Monocarba-*closo*-dodecaborate(-) Anions

Kanazawa, Junichiro; Kitazawa, Yu; Uchiyama, Masanobu, *Chem. Eur. J.* **2019**, 25, 9123

Tetravalent Oxygen and Sulphur Centres Mediated by Carborane Superacid: Theoretical Analysis

Grabowski, Slawomir J.; Casanova, David; Formoso, Elena; et al., *ChemPhysChem* **2019**, published online in 2019

Simultaneous Isolation of Nonadjacent m/z Ions Using Mirror Switching in an Electrostatic Linear Ion Trap

Johnson, Joshua T.; Carrick, Ian J.; Eakins, Gregory S.; et al., *Anal. Chem.* **2019**, 91, 12574

A 3D Analogue of Phenyllithium: Solution-Phase, Solid-State, and Computational Study of the Lithiacarborane [Li-CB₁₁H₁₁]⁻

Dontha, Rakesh; Zhu, Tian-Cheng; Shen, Yunjun; et al., *Angew. Chem. Int. Ed.* **2019**, 58, 2

Insertion of Carbenes into Deprotonated *nido*-Undecaborane, [B₁₁H₁₃]²⁻

Pecyna, Jacek; Roncevic, Igor; Michl, Josef, *Molecules* **2019**, 24, 3779

The 12-ethynylmonocarba-*closo*-dodecaborate anion as a versatile ligand for Cu(I) alkyne and heterobimetallic Cu(I)/M(II) (M = Pd, Pt) alkynide complexes

Jiang, Tao; Zhang, Kang; Shen, Yunjun; et al., *Dalton Trans.* **2019**, 48, 17192

5- to 9-Vertex Carboranes

Theoretical study of diminutive and cooperative effects in triad C₄B₂H₆(HF)₂ complexes

Amiri, Sara; Zabardasti, Abedien; Farhadi, Saeed, *Chem. Papers* **2019**, 73, 1447

New global minima of 6-vertex dicarboranes: classical but unexpected

Xue, Ying-ying; Ding, Yi-hong, *Chem. Commun.* **2019**, 55, 6373

10- and 11-Vertex *closo*-Carboranes

Synthesis of *closo*-1,2-H₂C₂B₈Me₈ and 1,2-H₂C₂B₈Me₇X (X = I and OTf) Dicarboranes and Their Rearrangement Reactions

Mario Bakardjiev, Aleš Růžička, Zdeňka Růžičková, Oleg L. Tok, Josef Holub, Drahomír Hnyk, Jindřich Fanfrlík, and Bohumil Štíbr, *Inorg. Chem.* **2019**, 58, 2865

Teaching an old dog new tricks: new directions in fundamental and applied *closo*-carborane anion chemistry
Fisher, Steven P.; Tomich, Anton W.; Guo, Juchen; et al., *Chem. Commun.* **2019**, 55, 1684

***nido*- and *arachno*-Carboranes**

A facile approach for the synthesis of *nido*-carborane fused oxazoles via one pot deboronation/cyclization of 9-amide-*o*-carboranes

Zhang, Cai-Yan; Cao, Ke; Xu, Tao-Tao; et al., *Chem. Commun.* **2019**, 55, 830

Zwitterionic *nido*-Carborane-Fused Phospholes

Guanyu Tao, Zheng Duan, and Francois Mathey, *Org. Lett.* **2019**, 21, 2273

Metal-Free Oxidative B-N Coupling of *nido*-Carborane with N-Heterocycles

Yang, Zhongming; Zhao, Weijia; Liu, Wei; et al., *Angew. Chem. Int. Ed.* **2019**, 58, 11886

Accessing the First *nido*-Carborane-Substituted Diphosphetane: A Ligand and Synthone for *nido*-Carboranylphosphanes

Coburger, Peter; Bielytskyi, Pavlo; Williamson, Darcy; et al., *Chem. Eur. J.* **2019**, 25, 11391

Synthesis of novel carboranyl azides and "click" reactions thereof

Stogniy, Marina Yu.; Erokhina, Svetlana A.; Druzina, Anna A.; et al., *J. Organometal. Chem.* **2019**, 904, Article number 121007

TRANSITION METAL METALLACARBORANES

Icosahedral Metallacarboranes

Metal-catalyzed cross-coupling chemistry with polyhedral boranes

Dziedzic, Rafal M.; Spokoyny, Alexander M., *Chem. Commun.* **2019**, 55, 430 (review)

Spherical *closo* Deltahedra with Surface Metal–Metal Multiple Bonding versus Oblate Deltahedra with Internal Metal–Metal Bonding in Dichromadicarborane Structures: The Nature of Stone's Icosahedral Dichromadicarborane

Szabolcs Jákó, Alexandru Lupan, Attila-Zsolt Kun, and R. Bruce King, *Inorg. Chem.* **2019**, 58, 3825

Modified synthesis of Ru-Rh heterobimetallic metallacarboranes based on ruthenium *exo-nido* complexes and not accompanied by *exo-nido* → *closo* rearrangement

D'yachihin, Dmitrii I.; Kostyukovich, Alexander Yu.; Godovikov, Ivan A.; et al., *Mendeleev Commun.* **2019**, 29, 69

Slow-spin relaxation of a low-spin S=1/2 Fe-III carborane complex

Buades, Ana B.; Arderiu, Victor S.; Maxwell, Lindley; et al., *Chem. Commun.* **2019**, 55, 3825

3,2,1 and stop! An innovative, straightforward and clean route for the flash synthesis of metallacarboranes

Bennour, Ines; Cioran, Ana M.; Teixidor, Francesc; et al., *Green Chem.* **2019**, 21, 1925

Mercury derivatives of polyhedral boranes, carboranes, and metallacarboranes

Sivaev, I. B.; Stogniy, M. Yu., *Russ. Chem. Bull.* **2019**, 68, 217 (review)

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