Professor Emeritus Steven H. Strauss, Colorado State University

List of Peer-Review Scientific Publications as Principal Investigator at CSU
(List of Books and Non-Peer-Review Publications at end of document)

Updated August 2023 (Several additional manuscripts are in preparation)

249. Zeplichal, M.; Gies, J.; Bernd, J.; Winslaws, D. K.; Chang, T.; Chen, Y.-S.; Strauss, S. H.; Boltalina, O. V.; Terfort, A. "Fluorinated Azaacenes: Efficient Syntheses, Structures, and Electrochemical Properties," *J. Fluorine Chem.* **2022**, 257–258, article 109960 (doi 10.1016/j.jfluchem.2022.109960).

248. Radha Krishnan, R. K.; Reeves, B. J.; Strauss, S. H.; Boltalina, O. V.; Lüssem, B. "$C_{60}CF_2$ based organic field-effect transistors with enhanced air-stability," *Org. Electron.* **2020**, *86*, article 105898 (doi 10.1016/j.orgel.2020.105898).

247. Brook, C. P.; Goutam, P.; Viswanathan, V. N.; Satyanarayana, S.; Panidhara, K. M.; Larson, B. W.; Ferguson, A. J.; Pal, A. J.; Ramamurthy, P. C.; Strauss, S. H.; Boltalina, O. V.; Braunecker, W. A. "Molecular insights into photostability of fluorinated organic photovoltaic blends: role of fullerene electron affinity and donor–acceptor miscibility," *Sustainable Energy Fuels* **2020**, *4*, 5721–5731 (doi 10.1039/d0se00971g).

246. Pace, N. A.; Clikeman, T. T.; Strauss, S. H.; Boltalina, O. V.; Johnson, J. C.; Rumbles, G.; Reid, O. G. "Triplet Excitons in Pentacene Are Intrinsically Difficult to Dissociate via Charge Transfer," *J. Phys. Chem. C* **2020**, *124*, 26153–26164 (doi: 10.1021/acs.jpcc.-0c08537).

245. Livshits, M. Y.; Reeves, B. J.; DeWeerd, N. J.; Strauss, S. H.; Boltalina, O. V.; Rack, J. J. "Trifluoromethyled Phenanthroline Ligands Reduce Excited-State Distortion in Homoleptic Copper(I) Complexes," *Inorg. Chem.* **2020**, *59*, 2781–2790 (doi: 10.1021/acs.inorg-chem.9b03146).

244. Brook, C. P.; DeWeerd, N. J.; Strauss, S. H.; Boltalina, O. V. "Structural and Electronic Effects in Pefluorobenzylated Perylenes," *J. Fluorine Chem.* **2020**, *231*, article 109465 (doi: 10.1016/j.jfluchem.2020.109465).

243. Lacroix, M. R.; Liu, Y.; Strauss, S. H. "Room Temperature FTIR Spectra of the Cyclic S_4 $(H_2O)_4$ Cluster in Crystalline $Li_2(H_2O)_4(B_{12}F_{12})$. Observation of B and E ν(OH) Bands and Coupling of Strong O–H···O and Weak O–H···F Vibrations," *J. Phys. Chem. A* **2020**, *123*, 9781–9790 (doi: 10.1021/acs.jpca.9b07628).

242. Pace, N. A.; Korovina, N. V.; Clikeman, T. T.; Holliday, S.; Granger, D. B.; Carroll, G. M.; Nanayakkara, S. U.; Anthony, J. E.; McCulloch, I.; Strauss, S. H.; Boltalina, O. V.; Johnson, J. C.; Rumbles, G.; Reid, O. G. "Slow Charge Transfer from Pentacene Triplet States at the Marcus Optimum," *Nat. Chem.* **2020**, *12*, 63–70 (doi: 10.1038/s41557-019-0367-x).

241. Lacroix, M. R.; Liu, Y.; Strauss, S. H. "Hydrated Metal Ion Salts of the Weakly Coordinating Fluoroanions PF_6^-, TiF_6^{2-}, $B_{12}F_{12}^{2-}$, $Ga(C_2F_5)_4^-$, $B(3,5\text{-}C_6H_3(CF_3)_2)_4^-$, and $Al(OC(CF_3)_3)_4^-$. In Search of the Weakest HOH···F Hydrogen Bonds," *Inorg. Chem.* **2019**, *58*, 14900–14911 (doi: 10.1021/acs.inorgchem.9b02646).

240. Castro, K. P.; Bukovsky, E. V.; Kuvychko, I. V.; DeWeerd, N. J.; Chen, Y.-S.; Deng, S. H. M.; Wang, X.-B.; Popov, A. A.; Strauss, S. H.; Boltalina, O. V. "PAH/PAH$(CF_3)_n$ Donor/Acceptor Charge-Transfer Complexes in Solution and in Solid-State Co-Crystals," *Chem. Eur. J.* **2019**, *58*, 13547–13565 (doi: 10.1002/chem.201902712).

239. Reeves, B. J.; Brooks, C. P.; Gerdes, O.; Deng, S. H. M.; Yean, Q.; Wang, X.-B.; Strauss, S. H.; Boltalina, O. V.; Walzer, K. "Fluorous Fullerene Acceptors in Vacuum-Deposited Photovoltaic Cells," *Solar RRL* **2019**, *3*, article 1900070 (doi: 10.1002/solr.201900070).

238. Liu, S.; DeWeerd, N. J.; Reeves, B. J.; San, L. K.; Dahal, D.; Krishnan, R. K. R.; Strauss, S. H.; Boltalina, O. V. Lüssem, B. "Doped N-Type Organic Field-Effect Transistors Based on Fauxhawk Fullerene," *Adv. Electron. Mater.* **2019**, *5*, article 1900109 (doi: 1.1002/aelm.201900109).

237. DeWeerd, N. J.; Bukovsky, E. V.; Castro, K. P.; Kuvychko, I. V.; Popov, A. A.; Strauss, S. H.; Boltalina, O. V. "Steric and electronic effects of CF_3 conformations in acene$(CF_3)_n$ derivatives," *J. Fluorine Chem.* **2019**, *221*, 1–7 (doi: 10.1016/j.jfluchem.2019.02.010).

236. Lacroix, M. R.; Gao, X.; Liu, Y.; Strauss, S. H. "Unusually sharp FTIR ν(OH) bands and very weak O–H···F hydrogen bonds in $M_2(H_2O)_n(B_{12}F_{12})$ hydrates (M = Na–Cs)," *J. Fluorine Chem.* **2019**, *217*, 105–108 (doi 10.1016/j.jfluchem.2018.10.010).

235. Lacroix, M. R.; Bukovsky, E. V.; Lozinšek, M.; Folsom, T. C.; Newell, B. S.; Liu, Y.; Peryshkov, D. V.; Strauss, S. H. "Manifestations of Weak O–H···F Hydrogen Bonding in $M(H_2O)_n(B_{12}F_{12})$ Salt Hydrates: Unusually Sharp FTIR ν(OH) Bands and Latent Porosity (M = Mg–Ba; Co, Ni, Zn)," *Inorg. Chem.* **2018**, *57*, 14983–15000 (doi 10.1021/acs.inorg-chem.8b02786).

234. Rippy, K. C.; DeWeerd, N. J.; Kuvychko, I. V.; Chen, Y.-S.; Strauss, S. H.; Boltalina, O. V. "Fluorination-Induced Evolution of Columnar Packing in Fluorous Triphenylenes and Benzotriphenylenes," *ChemPlusChem* **2018**, *83*, 1067–1077 (doi 10.1022/cplu.2018-00451).

233. Viswanathan, V. N.; Ferguson, A. J.; Pfeilsticker, J. R.; Larson, B. W.; Garner, L. E.; Brook, C. P.; Strauss, S. H.; Boltalina, O. V.; Ramamurthy, P. C.; Braunecker, W. A. "Strategic fluorination of polymers and fullerenes improves photostability of organic photovoltaic blends," *Organic Electronics* **2018**, *62*, 685–694 (doi 10.1016/j.orgel.2018.08.045).

232. Malischewski, M.; Bukovsky, E. V.; Strauss. S. H.; Seppelt, K. "Structure of $(SiEt_3)_2(B_{12}F_{12})$. Another example of R_3Si–F–E bridge bonding (E = B, Al, Si)," *J. Fluorine Chem.* **2018**, *212*, 107–111 (doi 10.1016/j.jfluchem.2018.04.010).

231. Quig, S. Y.; DeWeerd, N. J.; Matsnev, A. V.; Strauss, S. H.; Thrasher, J. S.; Boltalina, O. V. "Synthesis and Characterization of Pentafluorosulfanyl-Functionalized Fullerenes," *J. Fluorine Chem.* **2018**, *211*, 52–59 (doi 10.1016/j.jfluchem.2018.04.004).

230. Kuvychko, I. V.; Clikeman, T. T.; Dubceac, C.; Chen, Y.-S.; Petrukhina, M. A.; Strauss, S. H.; Popov, A. A.; Boltalina, O. V. "Understanding Polyarene Trifluoromethylation with Hot CF_3 Radicals using Corannulene," *Eur. J. Org. Chem.* **2018**, 4233–4245 (doi 10.1002/ejoc.-201800508).

229. Garner, L. E.; N. V., Vinila; Arias, D. H.; Boltalina, O. V.; Brook, C. P.; Christensen, S. T.; Ferguson, A. J.; Kopidakis, N.; Larson, B. W.; Owczarczyk, Z. R.; Pfeilsticker, J. R.; Ramamurthy, P. C.; Strauss, S. H.; Boltalina, O. V.; Braunecker, W. A. "Photobleaching Dynamics in Small Molecule vs. Polymer Organic Photovoltaic Blends with a Trifluoromethylfullerene," *J. Mater. Chem. A* **2018**, *6*, 4623–4628 (doi 10.1039/c7ta10995d).

228. Bukovsky, E. V.; Lacroix, M. R.; DeWeerd, N. J.; Reeves, B. J.; Bradshaw, G. P.; Choi, Y. L.; Bayless, M. B.; Newell, B. S.; Strauss, S. H. "Structures of 1,1',3,3'-Tetra(2-methyl-2-nonyl)ferrocenium(1+) Salts of $CB_{11}H_{12}^-$, $B_{12}F_{12}^{2-}$, BF_4^-, PF_6^-, and ClO_3^-" *J. Organomet. Chem.* **2018**, *865*, 128–137 (doi 10.1016/j.jorganchem.2018.02.003).

227. Bukovsky, E. V.; DeWeerd, N. J.; Strauss, S. H.; Boltalina, O. V. "Versatile metal reactor for high-temperature and high-pressure trifluoromethylation of carbon-rich substrates," *J. Fluorine Chem.* **2018**, *210*, 56–64 (doi 10.1016/j.jfluchem.2018.01.012).

226. Pluntze, A. M.; Bukovsky, E. V.; Lacroix, M. R.; Newell, B. S.; Rithner, C. D.; Strauss, S. H. "Deca-*B*-fluorination of diammonioboranes. Structures and NMR characterization of 1,2-, 1,7-, and 1,12-$B_{12}H_{10}(NH_3)_2$ and 1,2-, 1,7-, and 1,12-$B_{12}F_{10}(NH_3)_2$," *J. Fluorine Chem.* **2018**, *209*, 33–42 (doi 10.1016/j.jfluchem.2018.01.014).

225. San, L. K.; Spisak, S. N.; Dubceac, C.; Deng, S. H. M.; Kuvychko, I. V.; Petrukhina, M. A.; Wang. X.-B.; Popov, A. A.; Strauss. S. H.; Boltalina, O. V. "Experimental and DFT study of the electron-withdrawing ability of perfluoroalkyl (R_F) groups: electron affinities of $PAH(R_F)_n$ increase significantly with increasing R_F chain length," *Chem. Eur. J.* **2018**, *24*, 1441–1447 (doi 10.1022/chem.201704868).

224. Dubceac, C.; Sevryugina, Y.; Kuvychko, I. V.; Boltalina, O. V.; Strauss, S. H.; Petrukhina, M. A. "Self-Assembly of Aligned Hybrid 1D Stacks from Two Complementary π-Bowls," *Cryst. Growth Des.* **2018**, 18, 307–311 (doi 10.1021/acs.cgd.7b01258).

223. Bukovsky, E. V.; Pluntze, A. M.; Strauss, S. H. "Efficient direct fluorination of the $B_{12}H_{11}(NH_3)^-$ anion in acetonitrile and comparison of the structures of $Na(H_2O)_4(B_{12}F_{11}(NH_3))$ and $Na_2(H_2O)_4(B_{12}F_{12})$," *J. Fluorine Chem.* **2017**, *203*, 90–98 (doi 10.1016/j.jfluchem.2017.06.006).

222. Peryshkov, D. V.; Bukovsky, E. V.; Lacroix, M. R.; Wu, H.; Zhou, W.; Jones, W. M.; Lozinšek, M.; Folsom, T. C.; Heyliger, D. L.; Udovic, T. J.; Strauss, S. H. "Latent Porosity in Alkali Metal $M_2B_{12}F_{12}$ Salts: Structures and Rapid Room-Temperature Hydration/-

Dehydration Cycles," *Inorg. Chem.* **2017**, *56*, 12023–12041 (doi 10.1021/acs.inorg-chem.7b02081).

221. Clikeman, T. T.; Schmaltz, T.; Halik, M.; Hirsch, A.; Strauss, S. H.; Boltalina, O. V. "Formation of Perfluoroalkyl Fullerene Alkylphosphonic Acid Self-Assembled Monolayers on Aluminum Oxide," *ECS J. Solid State Sci. Technol.* **2017**, *6*, M3163–M3167 (doi 10.1149/2.0281706jss).

220. Bukovsky, E. V.; Peryshkov, D. V.; Wu, H.; Zhou, W.; Tang, W. S.; Jones, W. M.; Stavila, V.; Udovic, T. J.; Strauss, S. H. "Comparison of the Coordination of $B_{12}F_{12}^{2-}$, $B_{12}Cl_{12}^{2-}$, and $B_{12}H_{12}^{2-}$ to Na^+ in the Solid State: Crystal Structures and Thermal Behavior of $Na_2(B_{12}F_{12})$, $Na_2(H_2O)_4(B_{12}F_{12})$, $Na_2(B_{12}Cl_{12})$, and $Na_2(H_2O)_6(B_{12}Cl_{12})$," *Inorg. Chem.* **2017**, *56*, 4369–4379 (doi 10.1021/acs.inorgchem.6b02920).

219. Peryshkov, D. V.; Strauss, S. H. "Exceptional Structural Compliance of the $B_{12}F_{12}^{2-}$ Superweak Anion," *Inorg. Chem.* **2017**, *56*, 4072–4083 (doi 10.1021/acs.inorgchem.-7b00051).

218. Gansle, K. M. Gash, A. E.; Chambliss, C. K.; Clapsaddle, B. J.; Newell, B. S.; Miller, S. M.; Anderson, O. P.; Hughes, R. P.; Strauss, S. H. "X-ray structures and electronic properties of the 1,1',2,2'- and 1,1',3,3'-tetra-*t*-butylferrocenium(1+) cations," *Polyhedron* **2017**, *121*, 88–94 (doi 10.1016/j.poly.2016.09.027).

217. Bukovsky, E. V.; Larson, B. W.; Clikeman, T. T.; Chen, Y.-S.; Popov, A. A.; Boltalina, O. V.; Strauss, S. H. "Thirteen Decakis(trifluoromethyl)decahydro(C_{60}-I_h)[5,6]fullerenes ($C_{60}(CF_3)_{10}$). Structures and Structure-Related Properties of the Largest Set of Fullerene$(X)_n$ Isomers," In *New Forms of Fluorinated Carbon: Fundamentals and Applications*; Boltalina, O. V.: Nakajima, T., Eds.; Elsevier: New York, 2017, pp 59–89 (doi 10.1016/B978-0-12-803479-8.00003-6).

216. Larson, B. W.; Popov, A. A.; Strauss, S. H.; Boltalina, O. V. "Synthesis and Isolation of Trifluoromethylfullerenes," In *New Forms of Fluorinated Carbon: Fundamentals and Applications*; Boltalina, O. V., Nakajima, T., Eds.; Elsevier: New York, 2017, pp 35–58 (doi 10.1016/B978-0-12-803479-8.00002-4).

215. Malischewski, M.; Peryshkov, D. V.; Bukovsky, E. V.; Seppelt, K.; Strauss, S. H. "Structures of $M_2(SO_2)_6B_{12}F_{12}$ (M = Ag or K) and $Ag_2(H_2O)_4B_{12}F_{12}$: Comparison of the Coordination of SO_2 versus H_2O and of $B_{12}F_{12}^{2-}$ versus Other Weakly Coordinating Anions to Metal Ions in the Solid State," *Inorg. Chem.* **2016**, *55*, 12254–12262 (doi 10.1021/acs.-inorchem.6b01980).

214. Garner, L. E.; Larson, B. W.; Oosterhout, Z. O.; Owczarczyk, Z.; Olson, D.; Kopidakis, N.; Boltalina, O. V.; Strauss, S. H.; Braunecker, W. A. "Improving Photoconductance of Fluorinated Donors with Fluorinated Acceptors," in *2016 IEEE 43rd Photovoltaic Specialists Conference (PVSC)*; IEEE: New York, 2016, pp 1068–1071.

213. Dangate, M.; Munshi, A. H.; Sampath, W. S.; Boltalina, O. V.; Strauss, S. H.; Saravanan, C.; Nair, S. "Investigation of Organic Small Molecules and Polymer Compounds for CdTe Back Contact," in in *2016 IEEE 43rd Photovoltaic Specialists Conference (PVSC)*; IEEE: New York, 2016, pp 1438–1442.

212. Larson, B. W.; Reid, O. R.; Coffey, D. C.; Avdoshenko, S. M.; Popov, A. A.; Boltalina, O. V.; Strauss, S. H.; Kopidakis, N.; Rumbles, G. "Inter-Fullerene Electronic Coupling Controls the Efficiency of Photoinduced Charge Generation in Organic Bulk Heterojunctions, *Adv. Energy Mater.* **2016**, *6*, 1601427-1-11 (doi 10.1002/aenm.201601427).

211. Bukovsky, E. V.; Castro, K. P.; Wyatt, B. M.; Boltalina, O. V.; Strauss, S. H. "Strictly Anaerobic Stirred-Media Milling: the Effect of Oxygen on Silicon Nanoparticle Milling Dynamics, Crystallite Size, and Surface Chemistry," *RSC Advances* **2016**, *6*, 112370–112380 (doi 10.1039/c6ra19565b).

210. Park, J.; Ramirez, J.; Clikeman, T. T.; Larson, B.; Boltalina, O. V.; Strauss, S. H.; Rumbles, G. "Variation of Excited-State Dynamics in Trifluoromethyl Functionalized C_{60} Fullerene," *PhysChemChemPhys* **2016**, *18*, 22937–22945 (doi 10.1039/C6CP04461A).

209. Deng, H.; Dick, J.; Kummer, S.; Kragl, U.; Strauss, S. H.; Bard, A. J. "Probing Ion Transfer across Liquid-Liquid Interfaces by Monitoring Collisions of Single Femtoliter Oil Droplets on Ultramicroelectrodes," *Anal. Chem.* **2016**, 88, 7754-7761 (doi 10.1021/acs.analchem.-6b01747).

208. Ihly, R.; Mistry, K. S.; Ferguson, A. J.; Clikeman, T. T.; Larson, B. W.; Reid, O.; Boltalina, O. V.; Strauss, S. H.; Rumbles, G.; Blackburn, J. L. "Tuning the driving force for exciton dissociation in single-walled carbon nanotube heterojunctions," *Nature Chem.* **2016**, *8*, 603–609 (doi 10.1038/nchem.2496).

207. Bukovsky, E. V.; Larson, B. W.; Clikeman, T. T.; Chen, Y.-S.; Popov, A. A.; Boltalina, O. V.; Strauss, S. H. "Structures and structure-related electronic properties of new $C_{60}(CF_3)_{10}$ isomers," *J. Fluorine Chem.* **2016**, *185*, 103–117 (doi 10.1016/j.jfluchem.2016.02.007).

206. Castro, K. P.; Clikeman, T. T.; DeWeerd, N. J.; Bukovsky, E. V.; Rippy, K. C.; Kuvychko, I. V.; Hou, G.-L.; Chen, Y.-S.; Wang, X.-B.; Strauss, S. H.; Boltalina, O. V. "Incremental Tuning Up of Fluorous Phenazine Acceptors," *Chem. Eur. J.* **2016**, *22*, 3930–3936 (doi 10.1002/chem.201504122).

205. Rippy, K. C.; Bukovsky, E. B.; Clikeman, T. T.; Chen, Y.-S.; Hou, G.-L.; Wang, X.-B.; Popov, A. A.; Boltalina, O. V.; Strauss, S. H. "Copper Causes Regiospecific Formation of C_4F_8-Containing Six-Membered Rings and their Defluorination/Aromatization to C_4F_4-Containing Rings in Triphenylene/1,4-$C_4F_8I_2$ Reactions," *Chem. Eur. J.* **2016**, *22*, 874–877 (doi 10.1002/chem.201504291).

204. Malischewski, M.; Bukovsky, E. V.; Strauss, S. H.; Seppelt, K. S. "Jahn−Teller Effect in the $B_{12}F_{12}$ Radical Anion and Energetic Preference of an Octahedral $B_6(BF_2)_6$ Cluster

Structure over an Icosahedral Structure for the Elusive Neutral $B_{12}F_{12}$," *Inorg. Chem.* **2015**, *54*, 11563–11566 (doi 10.1021/acs.inorgchem.5b02256).

203. Kirschbaum, R. W.; Hausmann, M.; Boltalina, O. V.; Strauss, S. H.; Drewello, T. "Energy-depedent gas-phase fragmentation of fluorofullerene multiply charged anions (MCAs)," *Phys. Chem. Chem. Phys.* **2015**, *17*, 23052–23058 (doi 10.1039/c5cp03112e).

202. Clikeman, T. T.; Bukovsky, E. V.; Wang, X.-B.; Chen, Y. S.; Rumbles, G.; Strauss, S. H.; Boltalina, O. V. "Core Perylene Diimide Designs via Direct Bay- and *ortho*-(Polytrifluoromethylation: Synthesis, Isolation, X-ray Structures, Optical and Electronic Properties," *Eur. J. Org. Chem.* **2015**, 6641–6654 (doi 10.1002/ejoc.201501024).

201. Zalibera, M.; Machata, P.; Clikeman, T. T.; Rosenkrantz, M.; Strauss, S. H.; Boltalina, O. V.; Popov, A. A. "^{19}F NMR-, ESR-, and vis-NIR-spectroelectrochemical study of unconventional reduction behaviour of a perfluoroalkylated fullerene: dimerization of the $(C_{70}(CF_3)_{10})^-$ radical anion," *Analyst* **2015**, *140*, 7209–7216 (doi 10.1039/c5an01129a).

200. Boltalina, O. V. Popov, A. A.; Kuvychko, I. V.; Shustova, N. B.; Strauss, S. H.; "Perfluoroalkylfullerenes," *Chem. Rev.* **2015**, *115*, 1051–1105 (doi 10.1021/cr5002595).

199. San, L. K.; Clikeman, T. T.; Dubceac, C.; Popov, A. A.; Chen, Y. S.; Petrukhina, M. A.; Strauss, S. H.; Boltalina, O. V. "Corannulene Molecular Rotor with Flexible Perfluorobenzyl Blades: Synthesis, Structure and Properties," *Chem. Eur. J.* **2015**, *21*, 9488–9492 (doi 10.1002/chem.201500465).

198. San, L. K.; Bukovsky, E. V.; Larson, B. W.; Whitaker, J. B.; Deng. S. H. M.; Kopidakis, N.; Rumbles, G.; Popov, A. A.; Chen, Y.-S.; Wang, X.-B.; Boltalina, O. V.; Strauss, S. H. "A faux hawk fullerene with PCBM-like properties," *Chem. Sci.* **2015**, *6*, 1801–1815 (doi 10.1039/c4sc02970d).

197. Clikeman, T. C.; Deng, S. H. M.; Popov, A. A.; Wang, X.-B.; Strauss, S. H.; Boltalina, O. V. "Fullerene Cyanation Does Not Always Increase Electron Affinity: Experimental and Theoretical Study," *Phys. Chem. Chem. Phys.* **2015**, *17*, 551–556 (doi 10.1039/c4cp-04287e).

196. Larson, B. W.; Whitaker, J. B.; Popov, A. A.; Kopidakis, N.; Rumbles, G.; Boltalina, O. V.; Strauss, S. H. "Thermal [6,6] → [6,6] Isomerization and Decomposition of PCBM (Phenyl-C-61-butyric Acid Methyl Ester)," *Chem. Mater.* **2014**, *26*, 2361–2367 (doi 10.1021/-cm500594u).

195. San, L. K.; Bukovsky, E. V.; Kuvychko, I. V.; Popov, A. A.; Strauss, S. H.; Boltalina, O. V. "Single-Step Gas-Phase Polyperfluoroalkylation of Naphthalene Leads to Thermodynamic Products," *Chem. Eur. J.* **2014**, *20*, 4373–4379 (doi 10.1002/chem.201304554).

194. Clikeman, T. C.; Bukovsky, E. V.; Kuvychko, I. V.; San, L. K.; Deng, S. H. M.; Wang. X.-B.; Chen, Y. S.; Strauss, S. H.; Boltalina, O. V. "Poly(trifluoromethyl) azulenes: structure and acceptor properties," *Chem. Commun.* **2014**, *50*, 6263–6266 (doi 10.1039/c4cc00510d).

193. Whitaker, J. B.; Kuvychko, I. V.; Shustova, N. B.; Chen, Y.-S.; Strauss, S. H.; Boltalina, O. V. "An elusive fulvene 1,7,11,24-$C_{60}(CF_3)_4$ and its unusual reactivity," *Chem. Commun.* **2014**, *50*, 1205–1208 (doi 10.1039/c3cc47899h).

192. Kuvychko, I. V.; Dubceac, C.; Deng, S. H. M.; Wang, X.-B.; Granovsky, A. A.; Popov, A. A.; Petrukhina, M. A.; Strauss, S. H.; Boltalina, O. V. "$C_{20}H_4(C_4F_8)_3$: A Fluorine-Containing Annulated Corannulene that Is a Better Electron Acceptor Than C_{60}," *Angew. Chem. Int. Ed.* **2013**, *52*, 7505–7508 (doi 10.1002/anie.201300796).

191. Castro, K. P.; Jin, Yuhuan; Rack, J. J.; Strauss, S. H.; Boltalina, O. V.; Popov, A. A. "Perfluoroalkyl [70]-Fullerenes as Robust Highly-Luminescent Fluorocarbons, or Position of One CF_3 Group Matters," *J. Phys. Chem. Lett*. **2013**, *4*, 2500–2507 (doi 10.1021/-jz401068t).

190. Larson, B. W.; Whitaker, J. B.; Wang, X.-B.; Popov, A. A.; Rumbles, G.; Kopidakis, N.; Strauss, S. H.; Boltalina, O. V. "Electron Affinity of Phenyl-C_{61}-Butyric Acid Methyl Ester," *J. Phys. Chem. C* **2013**, 117, 14958–14964 (doi 10.1021/jp403312g).

189. Clikeman, T. T.; Deng, S. H. M.; Avdoshenko, S. M.; Wang, X.-B.; Popov, A. A.; Strauss, S. H.; Boltalina, O. V. "Fullerene 'Superhalogen' Radicals: the Substituent Effect on Electronic Properties of 1,7,11,24,27-$C_{60}X_5$," *Chem. Eur. J.* **2013**, *19*, 15404–15409 (doi 10.1002/chem.201201234).

188. Braunecker, W. A.; Oosterhout, S. D.; Owczarczyk, Z. R.; Larsen, R. E.; Larson, B. W.; Ginley, D. S.; Boltalina, O. V.; Strauss, S. H.; Kopidakis, N.; Olson, D. C. "Ethynylene-Linked Donor–Acceptor Alternating Copolymers," *Macromolecules* **2013**, *46*, 3367–3375 (doi 10.1021/ma400238t).

187. Kuvychko, I. V.; Castro, K. P.; Deng, S. H. M.; Wang, X.-B.; Strauss, S. H.; Boltalina, O. V. "Taming Hot CF_3 Radicals: Incrementally Tuned Families of Polyarene Electron Acceptors for Air-Stable Molecular Optoelectronics," *Angew. Chem. Int. Ed.* **2013**, *52*, 4871–4874 (doi 10.1002/anie.201300085).

186. Whitaker, J. B.; Shustova, N. B.; Strauss, S. H.; Boltalina, O. V. "Structure of 7,9,12,15,18,20,24,39,45,57-$C_{60}(CF_3)_{10}$(1,2:3,4-O)$_2$. The First Regiospecific Diepoxidation of a Fullerene Derivative," *Acta Chim. Slovenica* **2013**, *60*, 577–582.

185. Clikeman, T. C.; Kuvychko, I. V.; Shustova, N. B.; Chen, Y.-S.; Popov, A. A.;. Boltalina, O. V.; Strauss, S. H. "Regioselective Sequential Additions of Nucleophiles and Electrophiles to Perfluoroalkylfullerenes: Which Cage C Atoms Are the Most Reactive and Why," *Chem. Eur. J.* **2013**, *19*, 5070–5080 (doi 10.1002/chem.201203571).

184. Peryshkov, D. V.; Bukovsky, E. V.; Folsom, T. C.; Strauss, S. H. "Solid State Solvation and Anion Packing Patterns in Crystalline of $K_2(solv)_nB_{12}F_{12}$ (solv = H_2O_2(aq), MeOH, CH_3NO_2, and CH_3CN)," *Polyhedron* **2013**, *58*, 197–205 (doi 10.1016/j.poly.2012.11.004).

183. Peryshkov, D. V.; Friedemann, R.; Goreshnik, E.; Mazej, Z.; Seppelt, K.; Strauss, S. H. " Anion Packing, Hole Filling, and Solvation by HF in $A_2(HF)_nB_{12}F_{12}$ and $A_2(HF)_nMF_6$ Salts (A = K, Cs; M = Ti, Cr)," *J. Fluorine Chem.* **2013**, 118–127 (doi 10.1016/j.jfluchem.2012.10.009).

182. Shustova, N. B.; Strauss, S. H.; Boltalina, O. V. "High-Yield Synthesis of a Single Asymmetric Isomer of $C_{70}(CF_3)_{10}$ by High-Temperature Radical Trifluoromethylation," In *Efficient Preparation of Fluorine Compounds*; Roesky, H., Ed.; Wiley: New York, 2012; pp 447–449.

181. Kuvychko, I. V.; Larson, B. W.; Strauss, S. H.; Boltalina, O. V. "Efficient Preparation of the Highly Soluble *ortho*- and *para*-$C_{60}(CF_2C_6F_5)_2$ Derivatives," In *Efficient Preparation of Fluorine Compounds*; Roesky, H., Ed.; Wiley: New York, 2012; pp 19–21.

180. Peryshkov, D. V.; Bukovsky, E. V.; Strauss, S. H. "Efficient Perfluorination of $K_2B_{12}H_{12}$ in Neutral Acetonitrile," In *Efficient Preparation of Fluorine Compounds*; Roesky, H., Ed.; Wiley: New York, 2012; pp 16–18.

179. Kuvychko, I. V.; Strauss, S. H.; Boltalina, O. V. "Solution-Phase Perfluoroalkylation of C_{60} Leads to Efficient and Selective Synthesis of Bis-Perfluoroalkylated Fullerenes" *J. Fluorine Chem.* **2012**, 143, 103–108 (doi 10.1016/j.jfluchem.2012.04.014).

178. Ivanov, S. V.; Peryshkov, D. V.; Miller, S. M.; Anderson, O. P.; Rappé, A. K.; Strauss, S. H. "Synthesis, Structure, and Reactivity of $AlMe_2(1\text{-Me-}CB_{11}F_{11})$, Containing an $AlMe_2^+$ Cation-Like Moiety," *J. Fluorine Chem.* **2012**, *143*, 99–102 (doi 10.1016/j.jfluchem.-2012.02.001).

177. Nardes, A. M.; Ferguson, A. J.; Whitaker, J. B.; Larson, B. W.; Larsen, R. E.; Maturová, K.; Graf, P. A.; Boltalina, O. V.; Strauss, S. H.; Kopidakis, N. "Beyond PCBM: Understanding the photovoltaic performance of blends of indene-C_{60} multiadducts with poly(3-hexylthiophene)" *Adv. Funct. Mater.* **2012**, *22*, 4115–4127 (doi 10.1002/-adfm.201200336).

176. Clapsaddle, B. J.; Caamaño, S.; Hebert, G. N.; Bayless, M. B.; Kobayashi, Y.; Miller, S. M.; Anderson, O. P.; Strauss, S. H. "Structures of 1,1',3,3'-Tetra(2-methyl-2-nonyl)-ferrocenium(1+) Oxoanion(1−) Salts. Layered Materials with Alternating Ionic and Low-Dielectric Paraffin-Like Domains Through Which Anion Diffusion is Rapid," *Cryst. Growth Des.*, **2012**, *12*, 3868–3877 (doi 10.1021/cg3000872).

175. Coffey, D. C.; Larson, B. W.; Hains, A. W.; Whitaker, J. B.; Kopidakis, N.; Boltalina, O. V.; Strauss, S. H.; Rumbles, G. "An optimal driving force in excitonic solar cells for converting excitons into free charge," *J. Phys. Chem. C* **2012**, *116*, 8916–8923 (doi 10.1021/jp302275z).

174. Kuvychko, I. V.; Spisak, S. N.; Chen, Y.-S.; Popov, A. A.; Petrukhina, M. A.; Strauss, S. H.; Boltalina, O. V. "A Buckybowl with a Lot of Potential: C_5-$C_{20}H_5(CF_3)_5$," *Angew. Chem. Int. Ed.* **2012**, *51*, 4939–4942 (doi 10.1002/anie.201200178).

173. Kuvychko, I. V.; Whitaker, J. B.; Larson, B. W.; Folsom, T. C.; Shustova, N. B.; Avdoshenko, S. M.; Chen, Y.-S.; Wen, H.; Wang, X.-B.; Dunsch, L.; Popov, A. A.; Boltalina, O. V.; Strauss, S. H. "Substituent effects in a series of 1,7-$C_{60}(R_F)_2$ compounds (R_F = CF_3, C_2F_5, *n*-C_3F_7, *i*-C_3F_7, *n*-C_4F_9, *s*-C_4F_9, *n*-C_8F_{17}): Electron affinities, reduction potentials, and *E*(LUMO) values are not always correlated" *Chem. Sci.* **2012**, *3*, 1399–1407 (doi 10.1039/c2sc01133f). See also http://www.aps.anl.gov/Science/Highlights/-Content/APS_SCIENCE_20120625.php

172. Bukovsky, E. V.; Fiedler, S. R.; Peryshkov, D. V.; Popov, A. A.; Strauss, S. H. "The Structure of $(H_3O)_2B_{12}F_{12}\cdot 6H_2O$, a CCP Lattice of $B_{12}F_{12}^{2-}$ Anions Intercalated with a Non-Planar Moguled Network of O–H···O Connected O_6 Rings," *Eur. J. Inorg. Chem.* **2012**, 208–212 (doi 10.1002/ejic.201101118).

171. Molski, M. J.; Mollenhauer, D.; Gohr, S.; Paulus, B.; Khanfar, M. A.; Shorafa, H.; Strauss, S. H.; Seppelt, K. "Halogenated Benzene Cation Radicals," *Chem. Eur. J.* **2012**, *18*, 6644–6654 (doi 10.1002/chem.201102960).

170. Belletire, J. L.; Schneider, S.; Wight, B. A.; Strauss, S. H.; Shackelford, S. A. "Pairing Heterocyclic Cations with *closo*-Icosahedral Borane and Carborane Anions. II. Benchtop Alternative Synthetic Methodologies for Binary Triazolium and Tetrazolium Salts with Significant Water Solubility," *Synth. Commun.* **2012**, 42, 155–169 (doi 10.1080/003979-11.2010.520543).

169. Belletire, J. L.; Schneider, S.; Shackelford, S. A.; Peryshkov, D. V.; Strauss, S. H. "Pairing heterocyclic cations with *closo*-dodecafluorododecaborate(2−). Synthesis of binary heterocyclium(1+) salts and a Ag_4(heterocycle)$_8^{4+}$ salt of $B_{12}F_{12}^{2-}$," *J. Fluorine Chem.* **2011**, *132*, 925–936 (doi 10.1016/j.jfluchem.2011.07.009).

168. Kuvychko, I. V.; Shustova, N. B.; Avdoshenko, S. M.; Popov, A. A.; Strauss, S. H.; Boltalina, O. V. "In Search of Fullerene-Based Superacids: Synthesis, X-ray Structure, and DFT Study of $C_{60}(C_2F_5)_5H$," *Chem. Eur. J.* **2011**, *10*, 8799–8802 (doi 10.1002/-chem.201101328).

167. Shustova, N. B.; Kuvychko, I. V.; Popov, A. A.; von Delius, M.; Dunsch, L.; Anderson, O. P.; Hirsch, A.; Strauss, S. H.; Boltalina, O. V. "Nitrogen Directs Multiple Radical Additions to 9,9'-Bi-1-aza(C_{60}-I_h)[5,6]fullerene. X-ray Structure of 6,9,12,15,18-$C_{59}N(CF_3)_5$," *Angew. Chem. Int. Ed.* **2011**, *50*, 5537–5540 (doi 10.1002/anie.201101227).

166. Kuvychko, I. V.; Whitaker, J. B.; Larson, B. W.; Raguindin, R. S.; Suhr, K. J.; Strauss, S. H.; Boltalina, O. V. "Pressure Effect on Heterogeneous Trifluoromethylation of Fullerenes and its Application," *J. Fluorine Chem.* **2011**, *132*, 679–685 (doi 10.1016/-j.jfluchem.-2011.03.008).

165. Shustova, N. B.; Peryshkov, D. V.; Kuvychko, I. V.; Chen, Y.-S.; Mackey, M. A.; Coumbe, C. E.; Heaps, D. T.; Confait, B. S.; Heine, T.; Phillips, J. P.; Stevenson, S.; Dunsch, L.; Popov, A. A.; Strauss, S. H.; Boltalina, O. V. "Poly(perfluoroalkylation) of Metallic Nitride Fullerenes Reveals Addition-Pattern Guidelines: Synthesis and Characterization of a Family

of $Sc_3N@C_{80}(CF_3)_n$ (n = 2–16) and Their Radical Anions," *J. Am. Chem. Soc.* **2011**, *133*, 2672–2690 (doi 10.1021/ja109462j).

164. Boltalina, O. V.; Kuvychko, I. V.; Shustova, N. B.; Strauss, S. H. "Perfluoroalkylation of Fullerenes," Chapter 4 in *Handbook of Carbon Nanomaterials, Volume 1, Syntheses and Supramolecular Systems*; Desouza, F., Kadish, K. M., Eds.; World Scientific: Singapore, 2011; pp 101–143.

163. Shustova, N. B.; Kuvychko, I. V.; Peryshkov, D. V.; Whitaker, J. B.; Larson, B. W.; Chen, Y.-S.; Dunsch, L.; Seppelt, K.; Popov, A. A.; Strauss, S. H.; Boltalina, O. V. "Chemical tailoring of fullerene acceptors: synthesis, structures and electrochemical properties of perfluoroisopropylfullerenes," *Chem. Commun.* **2010**, *47*, 875–877 (doi 10.1039/c0cc-03247f).

162. Kuvychko, I. V.; Popov, A. A.; Streletskii, A. V.; Nye, L. C.; Drewello, T.; Strauss, S. H.; Boltalina, O. V. "Dynamic HPLC study of C_{70} chlorination reveals a suprisingly selective synthesis of $C_{70}Cl_8$," *Chem. Commun.* **2010**, *46*, 8204–8206 (doi 10.1039/c0cc03134h).

161. Peryshkov, D. V.; Strauss, S. H. "$K_2B_{12}F_{12}$: A rare A_2X structure type for an ionic compound at ambient conditions," *J. Fluorine Chem.* **2010**, *131*, 1252–1256 (Special Issue Honoring Russell P. Hughes; doi 10.1016/j.jfluchem.2010.06.015).

160. Shustova, N. B.; Kareev, I. E.; Kuvychko, I. V.; Whitaker, J. B.; Lebedkin, S. F.; Popov, A. A.; Dunsch, L.; Chen, Y.-S.; Seppelt, K.; Strauss, S. H.; Boltalina, O. V. "High-temperature and photochemical syntheses of C_{60} and C_{70} fullerene derivatives with linear perfluoroalkyl chains," *J. Fluorine Chem.* **2010**, *131*, 1198–1212 (Special Issue Honoring Russell P. Hughes; doi 10.1016/j.jfluchem.2010.08.001).

159. Peryshkov, D. V.; Goreshnik, E.; Mazej, Z.; Strauss, S. H. "Co-crystallization of octahedral and icosahedral fluoroanions in $K_3(AsF_6)(B_{12}F_{12})$ and $Cs_3(AsF_6)(B_{12}F_{12})$. Rare examples of salts containing fluoroanions with different shapes and charges," *J. Fluorine Chem.* **2010**, *131*, 1225–1228 (Special Issue Honoring Russell P. Hughes; doi 10.1016/j.jfluchem.2010.05.009).

158. Peryshkov, D. V.; Popov, A. A.; Strauss, S. H. "Latent Porosity in Potassium Dodecafluoro-*closo*-dodecaborate(2−). Structures and Rapid Room Temperature Interconversions of Crystalline $K_2B_{12}F_{12}$, $K_2(H_2O)_2B_{12}F_{12}$, and $K_2(H_2O)_4B_{12}F_{12}$ in the Presence of Water Vapor," *J. Am. Chem. Soc.* **2010**, *132*, 13902–13913 (doi 10.1021/ja105522d).

157. Popov, A. A.; Kareev, I. E.; Shustova, N. B.; Strauss, S. H.; Boltalina, O. V.; Dunsch, L. "Unraveling the ESR Pattern of Non-Symmetric Radicals with 30 Fluorine Atoms: ESR and Vis-NIR Spectroelectrochemistry of the Anion-Radicals and Dianions of $C_{60}(CF_3)_{2n}$ ($2n$ = 2–10) Derivatives and DFT-Assisted Assignment," *J. Am. Chem. Soc.* **2010**, *132*, 11709–11721 (doi 10.1021/ja1043775).

156. Shackelford, S. A.; Belletire, J. L.; Boatz, J. A.; Schneider, S.; Wheaton, A. K.; Wight, B. A.; Ammon, H. L.; Peryshkov, D. V.; Strauss, S. H. "Bridged Heterocyclium Dicationic

closo-Icosahedral Perfluoroborane, Borane, and Carborane Salts via Aqueous Open-Air Benchtop Synthesis," *Org. Lett.* **2010**, *12*, 2714–2717 (doi: 10.1021/ol100752y).

155. Kuvychko, I. V.; Streletskii, A. V.; Shustova, N. B.; Seppelt, K.; Drewello, T.; Popov, A. A.; Strauss, S. H.; Boltalina, O. V. "Soluble Chlorofullerenes $C_{60}Cl_{2,4,6,8,10}$. Synthesis, Purification, Compositional Analysis, Stability, and Experimental/Theoretical Structure Elucidation, including the X-ray Structure of C_1-1,2,7,10,14,24,25,28,29,31-$C_{60}Cl_{10}$," *J. Am. Chem. Soc.* **2010**, *132*, 6443–6462 (doi 10.1021/ja1005256).

154. Takano, Y.; Ángeles Herranz, M.; Martín, N.; de Miguel Rojas, G.; Guldi, D.; Kareev, I. E.; Strauss, S. H.; Boltalina, O. V.; Tsuchiya, T.; Akasaka, T. "Electron Donor-Acceptor Interactions in Regioselectively Synthesized exTTF_2-$C_{70}(CF_3)_{10}$ Dyads," *Chem. Eur. J.*, **2010**, *16*, 5343–5353 (doi 10.1002/chem.200902336).

153. Popov, A. A.; Shustova, N. B.; Mackey, M. A.; Coumbe, C. E.; Phillips, J. P.; Stevenson, S.; Strauss, S. H.; Boltalina, O. V.; Dunsch, L. "Redox Tuning Endohedral Fullerene Spin States. From the Dication to the Trianion Radical of $Sc_3N@C_{80}(CF_3)_2$ in Five Reversible Steps," *Chem. Eur. J.* **2010**, *16*, 4721–4724 (doi: 10.1002/chem.201000205).

152. Wang, X.-B.; Chi, C.; Zhou, M.; Kuvychko, I. V.; Seppelt, K.; Popov, A. A.; Strauss, S. H.; Boltalina, O. V.; Wang, L.-S. "Photoelectron Spectroscopy of $C_{60}F_n^-$ and $C_{60}F_m^{2-}$ (n = 17, 33, 35, 43, 45, 47; m = 34, 46) in the Gas Phase and the Generation and Characterization of $C_{60}F_{47}^-$ and D_2-$C_{60}F_{44}$ in Solution," *J. Phys. Chem. A*, **2010**, *114*, 1756–1765 (doi 10.1021/jp9097364).

151. Shustova, N. B.; Mazej, Z.; Chen, Y.-S.; Popov, A. A.; Strauss, S. H.; Boltalina, O. V. "Saturnene is revealed: X-ray structure of D_{5d}-$C_{60}F_{20}$ formed in reactions of C_{60} with A_xMF_y fluorinating agents (A = alkali metal; M = 3d metal)," *Angew. Chem. Int. Ed.* **2010**, *49*, 812–815 (doi 10.1002/anie.200905832).

150. Peryshkov, D. V.; Popov, A. A.; Strauss, S. H. "Direct Perfluorination of $K_2B_{12}H_{12}$ in Acetonitrile Occurs at the Gas Bubble–Solution Interface and is Inhibited by HF. Experimental and DFT Study of Inhibition by Protic Acids and Soft, Polarizable Anions," *J. Am. Chem. Soc.* **2009**, *131*, 18393–18403(doi 10.1021/ja9069437).

149. Shustova, N. B.; Chen, Y.-S.; Mackey, M. A.; Coumbe, C. E.; Phillips, J. P.; Stevenson, S.; Popov, A. A.; Boltalina, O. V.; Strauss, S. H. "$Sc_3N@(C_{80}$-$I_h(7))(CF_3)_{14}$ and $Sc_3N@(C_{80}$-$I_h(7))(CF_3)_{16}$. Endohedral Metallofullerene Derivatives with Exohedral Addends on Four and Eight Triple-Hexagon Junctions. Does the Sc_3N Cluster Control the Addition Pattern or Vice Versa?," *J. Am. Chem. Soc.* **2009**, *131*, 17630–17637 (doi 10.1021/ja9069216).

148. Takano, Y.; Ángeles-Herranz, M.; Kareev, I. E.; Strauss, S. H.; Boltalina, O. V.; Akasaka, T.; Martín, N.; "Efficient Regioselective [4+2] Cycloaddition of *o*-Quinodimethane to $C_{70}(CF_3)_{10}$," *J. Org. Chem.*, **2009**, *74*, 6902–6905 (doi: 10.1021/jo9014358).

147. Shackelford, S. A.; Belletire, J. L.; Boatz, J. A.; Schneider, S.; Wheaton, A. K.; Wight, B. A.; Hudgens, L. M.; Ammon, H. L.; Strauss, S. H. "Pairing Heterocyclic Cations with *closo*-

Icosahedral Borane and Carborane Anions. I. Benchtop Aqueous Synthesis of Binary Triazolium and Imidazolium Salts with Limited Water Solubility," *Org. Lett.*, **2009**, *11*, 2623–2626 (doi: 10.1021/ol900550v).

146. Boltalina, O. V.; Popov, A. A.; Strauss, S. H. "Single-Crystal X-ray Structures of Fullerenes and Their Derivatives," in Dodziuk, H., Ed. *Strained Hydrocarbons*, Wiley-VCH: Weinheim, pp 225–238 (2009) (ISBN: 978-3-527-31767-7).

145. Caamaño, S.; Arai, S.; Strauss, S. H.; Orton, E. C. "Does Sodium Dodecylsulfate Wash Out of Detergent-Treated Bovine Pericardium at Cytotoxic Concentrations," *J. Heart Valve Dis.* **2009**, *18*, 101–105.

144. Kareev, I. E.; Popov, A. A.; Kuvychko, I. V.; Shustova, N. B.; Lebedkin, S. F.; Bubnov, V. P.; Anderson, O. P.; Seppelt, K.; Strauss, S. H.; Boltalina, O. V. "Synthesis and X-ray or NMR/DFT Structure Elucidation of Twenty-One New Trifluoromethyl Derivatives of Soluble Cage Isomers of C_{76}, C_{78}, C_{84}, and C_{90}," *J. Am. Chem. Soc.* **2008**, *130*, 13471–13489 (doi 10.1021/ja8041614).

143. Kareev, I. E.; Kuvychko, I. V.; Shustova, N. B.; Lebedkin, S. F.; Bubnov, V. P.; Anderson, O. P.; Popov, A. A.; Boltalina, O. V.; Strauss, S. H.; "C_1-(C_{84}-C_2(11))$(CF_3)_{12}$: Trifluoromethylation Yields Structural Proof of a Minor C_{84} Cage and Reveals A Principle of Higher Fullerene Reactivity," *Angew. Chem. Int. Ed.* **2008**, *47*, 6204–6207 (doi 10.1002/anie.200801777).

142. Popov, A. A.; Shustova, N. B.; Boltalina, O. V.; Strauss, S. H.; Dunsch, L. "ESR-Vis-NIR Spectroelectrochemical Study of $C_{70}(CF_3)_2^{-\bullet}$ and $C_{70}(C_2F_5)_2^{-\bullet}$ Radical Anions," *ChemPhysChem* **2008**, *9*, 431–438 (doi 10.1002/cphc.200700708).

141. Shustova, N. B.; Anderson, O. P.; Boltalina, O. V.; Strauss, S. H.; Kareev, I. E. "1,3,7,-10,14,17,21,28,31,42,52,55-Dodecakis(trifluoromethyl)-1,3,7,10,14,17,21,28,31,42,52,55-dodecahydro(C_{60}-I_h)[5,6]fullerene," *Acta Cryst.* **2008**, *E64*, o159.

140. Popov, A. A.; Kareev, I. E.; Shustova, N. B.; Lebedkin, S. F.; Strauss, S. H.; Boltalina, O. V.; Dunsch, L. "Synthesis, Spectroscopic and Electrochemical Characterization, and DFT Study of Seventeen $C_{70}(CF_3)_n$ Derivatives (n = 2, 4, 6, 8, 10, 12)," *Chem. Eur. J.* **2008**, *14*, 107–121 (doi 10.1002/chem.200700970).

139. Shustova, N. B.; Kuvychko, I. V.; Boltalina, O. V.; Strauss, S. H. "1,7,16,30,36,47-Hexakis(perfluoroisopropyl)-1,7,16,30,36,47-hexahydro(C_{60}-I_h)[5,6]fullerene," *Acta Cryst.* **2007**, *E63*, o4575.

138. Shustova, N. B.; Peryshkov, D. V.; Boltalina, O. V.; Strauss, S. H. "1,4,10,19,25,41,55,-60,67,69-Decakis(trifluoromethyl)-1,4,10,19,25,41,55,60,67,69-decahydro(C_{70}-D_{5h})[5,6]-fullerene," *Acta Cryst.* **2007**, *E63*, o4073.

137. Kobayashi, Y.; Popov, A. A.; Miller, S. M.; Anderson, O. P.; Strauss, S. H. "Synthesis and Structure of Ag(1-Me-12-$SiPh_3$-$CB_{11}F_{10}$): Selective F12 Substitution in 1-Me-$CB_{11}F_{11}^-$ and

the First Ag(arene)$_4^+$ Tetrahedron," *Inorg. Chem.* **2007**, *46*, 8505–8507 (doi 10.1021/-ic701606p).

136. Shustova, N. B.; Popov, A. A.; Mackay, M. A.; Coumbe, C. E.; Phillips, J. P.; Stevenson, S.; Strauss, S. H.; Boltalina, O. V. "Radical Trifluoromethylation of $Sc_3N@C_{80}$," *J. Am. Chem. Soc.* **2007**, *129*, 11676–11677 (doi 10.1021/ja074332g).

135. Popov, A. A.; Kareev, I. E.; Shustova, N. B.; Stukalin, E. B.; Lebedkin, S. F.; Seppelt, K.; Strauss, S. H.; Boltalina, O. V.; Dunsch, L. "Electrochemical, Spectroscopic, and DFT Study of $C_{60}(CF_3)_n$ Frontier Orbitals (n = 2–18): The Link between Double Bonds in Pentagons and Reduction Potentials," *J. Am. Chem. Soc.* **2007**, *129*, 11551–11568 (doi 10.1021/ja073181e).

134. Shustova, N. B.; Peryshkov, D. V.; Kareev, I. E.; Boltalina, O. V.; Strauss, S. H. "1,4,7,11,18,21,24,31,35,39,51,58,61,64-Tetradecakis(trifluoromethyl)-1,4,7,11,18,21,24,-31,35,39,51,58,61,64-tetradecahydro(C_{70}–D_{5h})[5,6]fullerene *p*-xylene trisolvate," *Acta Cryst.* **2007**, *E63*, o3928–o3929.

133. Shustova, N. B.; Peryshkov, D. V.; Kareev, I. E.; Boltalina, O. V.; Strauss, S. H. "1,6,11,18,24,27,33,51,54,60-Octakis(trifluoromethyl)-1,6,11,18,24,27,33,-51,54,60-octahydro(C_{60}-I_h)[5,6]fullerene deuterochloroform solvate," *Acta Cryst.* **2007**, *E63*, o3398.

132. Shustova, N. B.; Peryshkov, D. V.; Popov, A. A.; Boltalina, O. V.; Strauss, S. H. "1,6,11,18,24,27,33,51,54,60-Decakis(trifluoromethyl)-1,6,11,18,24,27,33,51,54,60-decahydro(C_{60}-I_h)[5,6]fullerene," *Acta Cryst.* **2007**, *E63*, o3129.

131. Shustova, N. B.; Newell, B. S.; Miller, S. M.; Anderson, O. P.; Bolskar, R. D.; Seppelt, K.; Popov, A. A.; Boltalina, O. V.; Strauss, S. H. "Discovering and Verifying Fullerene Cage Isomers: Structures of C_2-p^{11}-(C_{74}-D_{3h})$(CF_3)_{12}$ and C_2-p^{11}-(C_{78}-D_{3h}(5))$(CF_3)_{12}$," *Angew. Chem. Int. Ed.* **2007**, *46*, 4111–4114 (doi 10.1002/anie.200604968).

130. Kareev, I. E.; Shustova, N. B.; Peryshkov, D. V.; Lebedkin, S. F.; Miller, S. M.; Anderson, O. P.; Popov, A. A.; Boltalina, O. V.; Strauss, S. H. "X-ray Structure and DFT Study of C_1-$C_{60}(CF_3)_{12}$. A High-Energy Kinetically-Stable Isomer Prepared at 500 °C," *Chem. Commun.* **2007**, 1650–1652 (doi 10.1039/b617489b).

129. Frenking, G.; Loschen, C.; Krapp, A.; Fau, S.; Strauss, S. H. "Electronic Structure of CO – An Exercise in Modern Chemical Bonding Theory," *J. Comp. Chem.* **2007**, 28, 117–126 (doi 10.1002/jcc.20477).

128. Shustova, N. B.; Kuvychko, I. V.; Bolskar, R. D.; Seppelt, K.; Strauss, S. H.; Boltalina, O. V. "Trifluoromethyl Derivatives of Insoluble Small-HOMO-LUMO-Gap Hollow Higher Fullerenes. NMR and DFT Structure Elucidation of C_2-(C_{74}-D_{3h})$(CF_3)_{12}$, C_s-(C_{76}-T_d)$(CF_3)_{12}$, C_2-(C_{78}-D_{3h}(5))$(CF_3)_{12}$, C_s-(C_{80}-C_{2v}(5))$(CF_3)_{12}$, and C_2-(C_{82}-C_2(5))$(CF_3)_{12}$," *J. Am. Chem. Soc.* **2006**, *128*, 15793–15798 (doi 10.1021/ja0651781).

127. Kareev, I. E.; Shustova, N. B.; Kuvychko, I. V.; Lebedkin, S. F.; Miller, S. M.; Anderson, O. P.; Popov, A. A.; Strauss, S. H.; Boltalina, O. V. "Thermally-Stable Perfluoroalkylfullerenes With the Skew-Pentagonal Pyramid Pattern: $C_{60}(C_2F_5)_4O$, $C_{60}(CF_3)_4O$, and $C_{60}(CF_3)_6$," *J. Am. Chem. Soc.* **2006**, *128*, 12622–12628 (doi 10.1021/ja063907r).

126. Goryunkov, A. A.; Kareev, I. E.; Ioffe, I. N.; Popov, A. A.; Kuvychko, I. V.; Markov, V. Y.; Goldt, I. V.; Pimenova, A. S.; Serov, M. G.; Avdoshenko, S. M.; Khavrel, P. A.; Sidorov, L. N.; Lebedkin, S. F.; Mazej, Z.; Žemva, B.; Strauss, S. H.; Boltalina, O. V. "Reaction of C_{60} with $KMnF_4$. Isolation and Characterization of a New Isomer of $C_{60}F_8$ and Re-evaluation of the Structures of $C_{60}F_7(CF_3)$ and the Known Isomer of $C_{60}F_8$," *J. Fluorine Chem.* **2006**, *127*, 1423–1435 (doi 10.1016/j.jfluchem.2006.06.016).

125. Goryunkov, A. A.; Mazej, Z.; Žemva, B.; Strauss, S. H.; Boltalina, O. V. "C_{60} Fluorination with Rare Earth Metal Tetrafluorides: An Extreme PrF_4 Case," *Mendeleev Commun.* **2006**, 159–161 (doi 10.1070/MC2006v016n03ABEH002332).

124. Kareev, I. E.; Shustova, N. B.; Newell, B. S.; Miller, S. M.; Anderson, O. P.; Strauss, S. H.; Boltalina, O. V. "1,6,11,18,24,27,52,55-Octakis(trifluoromethyl)-1,6,11,18,24,27,-52,55-octahydro(C_{60}-I_h)[5,6]fullerene," *Acta Cryst.* **2006**, *E62*, o3154–o3156.

123. Kareev, I. E.; Lebedkin, S. F.; Popov, A. A.; Miller, S. M.; Anderson, O. P.; Strauss, S. H.; Boltalina, O. V. "1,6,12,15,18,23,25,41,45,57-Decakis(trifluoromethyl)-1,6,12,15,18,-23,25,41,45,57-decahydro(C_{60}-I_h)[5,6]fullerene," *Acta Cryst.* **2006**, *E62*, o1501–o1503.

122. Kareev, I. E.; Lebedkin, S. F.; Miller, S. M.; Anderson, O. P.; Strauss, S. H.; Boltalina, O. V. "1,6,11,16,18,26,36,44,48,58-Decakis(trifluoromethyl)-1,6,11,16,18,26,36,44,48,58-decahydro(C_{60}-I_h)[5,6]fullerene benzene 2.5-solvate," *Acta Cryst.* **2006**, *E62*, o1498–o1500.

121. Dorozhkin, E. I.; Ignat'eva, D. V.; Tamm, N. B.; Goryunkov, A. A.; Khavrel, P. A.; Ioffe, I. N.; Popov, A. A.; Kuvychko, I. V.; Streletskiy, A. V.; Markov, V. Y.; Spandl, J.; Strauss, S. H.; Boltalina, O. V. "Synthesis, Characterization, and Theoretical Study of Stable Isomers of $C_{70}(CF_3)_{2,4,6,8,10}$," *Chem. Eur. J.* **2006**, *12*, 3876–3889 (doi 10.1002/-chem.200501346).

120. Kobayashi, Y.; Ivanov, S. V.; Miller, S. M.; Anderson, O. P.; Solntsev, K. A.; Strauss, S. H. "Structure of the $B_{24}F_{22}^{4-}$ Anion: Two $B_{12}F_{11}^{2-}$ Icosahedra Linked by a 2c-2e B–B Bond," *Heteroatom Chem.* **2006**, *17*, 181–187 (doi 10.1002/hc.20220).

119. Kareev, I. E.; Lebedkin, S. F.; Miller, S. M.; Anderson, O. P.; Strauss, S. H.; Boltalina, O. V. "1,4,10,14,19,25,35,41,49,60,66,69-Dodecakis(trifluoromethyl)-1,4,10,14,19,25,35,-41,49,60,66,69-dodecahydro(C_{70}-$D_{5h(6)}$)[5,6]fullerene benzene disolvate," *Acta Cryst.* **2006**, *E62*, o620–o622.

118. Kareev, I. E.; Lebedkin, S. F.; Miller, S. M.; Anderson, O. P.; Strauss, S. H.; Boltalina, O. V. "1,4,10,19,25,32,41,49,54,60,66,69-Dodecakis(trifluoromethyl)-1,4,10,19,25,32,41,-

49,54,60,66,69-dodecahydro(C_{70}-$D_{5h(6)}$)[5,6]fullerene benzene 2.5-solvate," *Acta Cryst.* **2006**, *E62*, o617–o619.

117. Kareev, I. E.; Kuvychko, I. V.; Lebedkin, S. F.; Miller, S. M.; Anderson, O. P.; Strauss, S. H.; Boltalina, O. V. "Synthesis and Structures of Poly(perfluoroethyl)[60]fullerenes: 1,7,16,36,46,49-$C_{60}(C_2F_5)_6$ and 1,6,11,18,24,27,32,35-$C_{60}(C_2F_5)_8$," *Chem. Commun.*, **2006**, 308–310 (doi 10.1039/b513477c).

116. Kareev, I. E.; Kuvychko, I. V.; Popov, A. A.; I. V.; Lebedkin, S. F.; Miller, S. M.; Anderson, O. P.; Strauss, S. H.; Boltalina, O. V. "High-Temperature Synthesis Reveals the Surprisingly Stable C_1-$C_{70}X_{10}$ Isomer With a *para*^{7}*-meta-para* Ribbon of Nine $C_6(CF_3)_2$ Edge-Sharing Hexagons," *Angew. Chem. Int. Ed.* **2005**, *44*, 7984–7987 (doi 10.1002/-anie.200502419).

115. Popov, A. A.; Tarábek, J.; Kareev, I. E.; Lebedkin, S. F.; Strauss, S. H.; Boltalina, O. V.; Dunsch, L. "Poly(trifluoromethyl)fullerene Radical Anions. An ESR/Vis-NIR Spectro-electrochemical Study of $C_{60}F_{2,4}$, and $C_{60}(CF_3)_{2,10}$," *J. Phys. Chem. A* **2005**, *109*, 9709–9711 (doi 10.1021/jp0550006).

114. Kareev, I. E.; Quinones, G. S.; Kuvychko, I. V.; Ioffe, I. N.; Goldt, I. V.; Lebedkin, S. F.; Seppelt, K.; Strauss, S. H.; Boltalina, O. V. "Synthesis of 1,7- and 1,9-$C_{60}F(CF_3)$: Sterically Hindered CF_3 Rotation and Through-Space J_{FF} Coupling in 1,9-$C_{60}F(CF_3)$ and in C_1- and C_s-$C_{60}F_{17}(CF_3)$," *J. Am. Chem. Soc.*, **2005**, *127*, 11497–11504 (doi 10.1021/ja051954y).

113. Kuvychko, I. V.; Streletskii, A. V.; Popov, A. A.; Kotsiris, S. G.; Drewello, T.; Strauss, S. H.; Boltalina, O. V. "Seven-Minute Synthesis of Pure C_s-$C_{60}Cl_6$ from [60]Fullerene and Iodine Monochloride. First IR, Raman, and Mass Spectra of 99 mol% $C_{60}Cl_6$," *Chem. Eur. J.*, **2005**, *11*, 5426–5436 (doi 10.1002/chem.200500185).

112. Kareev, I. E.; Kuvychko, I. V.; Lebedkin, S. F.; Miller, S. M.; Anderson, O. P.; Seppelt, K.; Strauss, S. H.; Boltalina, O. V. "Synthesis, Structure, and ^{19}F NMR Spectra of 1,3,7,10,14,17,23,28,31,40-$C_{60}(CF_3)_{10}$," *J. Am. Chem. Soc.* **2005**, *127*, 8362–8375 (doi 10.1021/ja050305j).

111. Drewello, T.; Frauendorf, H.; Herzschuh, R.; Goryunkov, A. A.; Strauss, S. H.; Boltalina, O. V. "The Formation of Long-Lived Fluorofullerene Dianions by Direct Electrospray Ionization," *Chem. Phys. Lett.* **2005**, *405*, 93–96 (doi 10.1016/j.cplett.2005.02.020).

110. Kareev, I. E.; Lebedkin, S. F.; Bubnov, V. P.; Yagubskii, E. B.; Ioffe, I. N.; Kharel, P. A.; Kuvychko, I. V.; Strauss, S. H.; Boltalina, O. V. "Trifluoromethylated Yttrium Endohedral Metallofullerenes: Synthesis, Isolation and Structure," *Angew Chem. Int. Ed.* **2005**, *44*, 1846–1849 (doi 10.1002/anie.200461497).

109. Streletskii, A. V.; Ioffe, I. N.; Kotsiris, S. G.; Barrow, M. P.; Drewello, T.; Strauss, S. H.; Boltalina, O. V. "In-plume Thermodynamics of the MALDI Generation of Fluorofullerene Anions," *J. Phys. Chem. A*, **2005**, *109*, 714–719.

108. Nolan, B. G.; Tsujioka, S.; Strauss, S. H. "Electrochemical Properties of Lithium Electrolytes Based on Bis(polyfluorodiolato)borate and Tetrakis(polyfluoroalkoxy)-aluminate Superweak Anions," in Nakajima, T.; Groult, H., Eds. *Fluorinated Materials for Energy Conversion*, Elsevier Science Ltd., 2005, pp 195–221.

107. Popov, A. A.; Goryunkov, A. A.; Goldt, I. V.; Kareev, I. E.; Kuvychko, I. V.; Hunnius, W.-D.; Seppelt, K.; Strauss, S. H.; Boltalina, O. V. "Raman, Infrared, and Theoretical Studies of Fluorofullerene $C_{60}F_{20}$," *J. Phys. Chem. A* **2004**, *108*, 11449–11456.

106. Tsujioka, S.; Nolan, B. G.; Takase, H.; Fauber, B. P.; Strauss, S. H. "Conductivities and Electrochemical Stabilities of Lithium Salts of Polyfluoroalkoxyaluminate Superweak Anions", *J. Electrochem. Soc.* **2004**, *151*, A1418–A1423 (doi 10.1149/1.1776589).

105. Boltalina, O. V.; Strauss, S. H. "Fluorofullerenes"; in *Dekker Encyclopedia of Nanoscience and Nanotechnology*, Schwarz, J. A.; Contescu, C.; and Putyera, K., Eds.; Marcel Dekker; New York; 2004, pp 1175–1190.

104. Ivanov, S. V.; Miller, S. M.; Anderson, O. P.; Strauss, S. H. "Structure of $Ag(CHPh_3)(1\text{-}Me\text{-}CB_{11}F_{11})$. Trigonal-Planar $Ag(arene)_3^+$ Cations, Polymeric $\{Ag(CHPh_3)^+\}_\infty$ Triangular-Net Layers, and Partially Aligned Interstitial Carborane Anions in a Polar Crystal", *Cryst. Growth Des.* **2004**, *4*, 249–254.

103. Denisenko, N. I.; Troyanov, S. I.; Popov, A. A.; Kuvychko, I. V.; Zemva, B.; Kemnitz, E.; Strauss, S. H.; Boltalina, O. V. "T_h-$C_{60}F_{24}$", *J. Am. Chem. Soc.* **2004**, *126*, 1618–1619.

102. Hebert, G. N.; Odom, M. A.; Bowman, S. C.; Strauss, S. H. "Attenuated Total Reflection FTIR Detection and Quantification of Low Concentrations of Aqueous Polyatomic Anions," *Anal. Chem.* **2004**, *76*, 781–787 (doi 10.1021/ac034915l).
See also: *Chemical & Engineering News* **2003** (March 31 issue), pp 35–36.

101. Streletskiy, A. V.; Goldt, I. V.; Kuvychko, I. V.; Ioffe, I. V.; Sidorov, L. N.; Drewello, T.; Strauss, S. H.; Boltalina, O. V. "Application of 9-Nitroanthracene as a Matrix for Laser Desorption/Ionization Analysis of Fluorinated Fullerenes," *Rapid Commun. Mass Spectrom.* **2004**, 18, 1–3.

100. Goryunkov, A. A.; Markov, V. Y.; Ioffe, I. N.; Bolskar, R. D.; Diener, M. D.; Kuvychko, I. V.; Strauss, S. H.; Boltalina, O. V. "$C_{74}F_{38}$: An Exohedral Derivative of a Small Bandgap Fullerene has D_3 Symmetry," *Angew. Chem. Int. Ed.* **2004**, *43*, 997–1000 ().

99. Goryunkov, A. A.; Ioffe, I. N.; Kuvychko, I. V.; Yankova, T. S.; Markov, V. Y.; Streletskii, A. A.; Dick, D. L.; Sidorov, L. N.; Boltalina, O. V.; Strauss, S. H. "Trifluoromethylated [60]Fullerenes. Synthesis and Characterization," *Fullerenes Nanotubes Carbon Nanostruct.* **2004**, *12*, 181–185.

98. Nolan, B. G.; Strauss, S. H. "Nonaqueous Lithium Battery Electrolytes Based on Bis(polyfluorodiolato)borates," *J. Electrochem. Soc.* **2003**, *150*, A1726–A1734.

97. Goryunkov, A. A.; Kuvychko, I. V.; Ioffe, I. N.; Dick, D. L.; Sidorov, L. N.; Strauss, S. H.; Boltalina, O. V. "Isolation of $C_{60}(CF_3)_n$ (n = 2, 4, 6, 8, 10) with High Compositional Purity," *J. Fluorine Chem.* **2003**, *124*, 61–64.

96. Ivanov, S. V.; Davis, J. A.; Miller, S. M.; Anderson, O. P.; Strauss, S. H. "Synthesis and Characterization of Ammonioundecafluoro-*closo*-dodecaborates(1−). New Superweak Anions," *Inorg. Chem.* **2003**, *42*, 4489–4491.

95. Moody, C. A.; Hebert, G. N.; Strauss, S. H.; Field, J. A. "Occurance and Persistence of Perfluorooctanesulfonate and Other Perfluoroalkylated Surfactants in Groundwater at a Fire-Training Area at Wurtsmith Air Force, Michigan, USA," *J. Environ. Monit.* **2003**, *5*, 341–345.

94. Ivanov, S. V.; Miller, S. M.; Anderson, O. P.; Solntsev, K. A.; Strauss, S. H. "Synthesis and Stability of Reactive Salts of Dodecafluoro-*closo*-dodecaborate(2−)," *J. Am. Chem. Soc.* **2003**, *125*, 4694–4695.

93. Williams, T. L.; Collette, T. W.; Urbansky, E. T.; Magnuson, M. L.; Hebert, G. N.; Strauss, S. H. "Analysis of Hydroponic Fertilizers for Perchlorate. Comparison of Analytical Techniques," *Analyst* **2003**, *128*, 88–97.

92. Dysleski, Lisa M.; Frank, Sarah E.; Strauss, Steven H.; Dorhout, Peter K. "Design and Synthesis of New Materials for Heavy Element Waste Remediation," *Interfacial Applications in Environmental Engineering*; Keane, M. A., Ed.; *Surfactant Science Series Vol. 108*, Marcel Dekker: New York, 2003, 111–125.

91. Nolan, Benjamin G.; Tsujioka, Shoichi; Strauss, S. H. "New Synthesis of Polyfluorodiols: Nine New Derivatives of $HOC(2\text{-}OH\text{-}C_6H_4)(CF_3)_2$," *J. Fluorine Chem.* **2002**, *118*, 103–106.

90. Bitner, Theodore W.; Zink, Jeffrey I.; Havighurst, M. D.; Strauss, S. H. "Luminescence of the Nonclassical Homoleptic Metal Carbonyl Complex $[Rh(CO)_4]^+$," *Inorg. Chem.* **2002**, *41*, 6187–6189.

89. Wulfsberg, G.; Parks, K. D.; Rutherford, R.; Jackson, D. J.; Jones, F. E.; Derrick, D.; Ilsley, W.; Strauss, S. H.; Miller, S. M.; Anderson, O. P.; Babushkina, T. A.; Gushchin, S. I.; Kravchenko, E. A.; Morgunov, V. G. "Weakly Coordinating Anions: Crystallographic and NQR Studies of Halogen-Metal Bonding in Silver, Thallium, Sodium, and Potassium Halomethanesulfonates," *Inorg. Chem.* **2002**, *41*, 2032–2040.

88. Hebert, G. N.; Odom, M. A.; Craig, P. S.; Strauss, S. H. "Efficient Method for the Determination of Sub-ppm Concentrations of Perfluoroalkylsulfonate Anions in Water," *J. Environ. Monit.* **2002**, *4*, 90–95.

87. Strauss, S. H.; Odom, M. A.; Hebert, G. N.; Clapsaddle, B. J.; "ATR-FTIR Detection of ≤ 25 μg/L Aqueous Cyanide, Perchlorate, and Perfluorooctylsulfonate," *J. Am. Water Works Assoc.*, **2002** *94*, 109–115.

See also: *Chemical & Engineering News* **2003** (March 31 issue), pp 35–36.

86. Barbarich, Thomas J.; Nolan, Benjamin G.; Tsujioka, Shoichi; Strauss, S. H. "New or Improved Syntheses of the Polyfluoroalcohols HOC(*cyclo*-C_6H_{11})$_2$(CF_3), HOC(*cyclo*-C_6H_{11})(CF_3)$_2$, and HOC(Ar)(CF_3)$_2$ (Ar = 4-C_6H_4(*t*-Bu), 2,4,6-C_6H_2(CF_3)$_3$, 4-Si(*i*-Pr)$_3$-2,6-C_6H_2(CF_3)$_2$, 3,5-C_6H_3(CH_3)$_2$, and 2-C_6H_4(C(OH)(CF_3)$_2$))," *J. Fluorine Chem*. **2001**, *112*, 335–342.

85. Strauss, S. H. "In Search of a Deep Understanding of the Relative Stabilities of Transition Metal Halides," *J. Chem. Ed.* **2001**, *78*, 1635–1640.

84. Ivanova, S. M.; Nolan, B. G.; Kobayashi, Y.; Miller, S. M.; Anderson, O. P.; Strauss, S. H. "Relative Lewis Basicities of Six Al(OR_F)$_4^-$ Superweak Anions and the Structures of LiAl(OCH(CF_3)$_2$)$_4$ and [1-Et-3-Me-1,3-$C_3H_3N_2$][Li(Al(OCH(CF_3)$_2$)$_4$)$_2$]," *Chem. Eur. J.* **2001**, *7*, 503–510.

83. Gash, A. E.; Dorhout, P. K.; Strauss, S. H. "XAFS Studies of Soft-Heavy-Metal-Ion-Intercalated M_xMoS_2 (M = Hg^{2+} and Ag^+) Solids," *Chem. Mater.* **2001**, *41*, 2257–2265.

82. Lupinetti, A. J.; Frenking, G.; Strauss, S. H. "Nonclassical Metal Carbonyls," In *Progress in Inorganic Chemistry, Vol. 49*; Karlin, K. D., Ed.; Wiley: New York, NY, 2001, 1–112.

81. Gash, A. E.; Dorhout, P. K.; Strauss, S. H. "Zirconium and Hafnium Hydrogen Monothiophosphates, $H_2Zr(PO_3S)_2$ and $H_2Hf(PO_3S)_2$. Syntheses and Selective Ion-Exchange Properties of Sulfur-Containing Analogues of $H_2M(PO_4)_2$ (M = Zr, Hf)," *Inorg. Chem*. **2000**, *39*, 5538–5546.

80. Strauss, S. H. "Highly Fluorinated *closo*-Borane and -Carborane Anions," in Davidson, M.; Hughes, A. K.; Marder, T. B; Wade, K., Eds. *Contemporary Boron Chemistry*; Royal Society of Chemistry: Cambridge, UK, 2000, pp 44–48.

79. Polyakov, O. G.; Nolan, B. G.; Fauber, B. P.; Miller, S. M.; Anderson, O. P.; Strauss, S. H. "Weakly Coordinating Anions HA_2^- Generated from Oxoanions A^- and Their Conjugate Acids. Coordination Equilibria, Ionic Conductivities, and the Structures of {Cu_2($H(CH_3SO_3)_2$)$_4$}$_n$ and [Cu(CO)($H(CF_3CO_2)_2$)]$_2$," *Inorg. Chem.* **2000**, *39*, 1735–1742.

78. Strauss, S. H. "Copper(I) and Silver(I) Carbonyls. To Be or Not to Be Nonclassical," *J. Chem. Soc., Dalton Trans.* **2000**, 1–6.

77. Lupinetti, A. J.; Havighurst, M. D.; Miller, S. M.; Anderson, O. P.; Strauss, S. H. "Facile Conversion of [(η^6-C_6H_6)Rh($CO)_2$][1-Et-$CB_{11}F_{11}$] into the Nonclassical Rhodium(I) Carbonyl [Rh($CO)_4$][1-Et-$CB_{11}F_{11}$]," *J. Am. Chem. Soc.* **1999**, 121, 11920–11921.

76. McLemore, D. K.; Dixon, D. A.; Strauss, S. H. "Density Functional Theory and Fluorocarboranes. I. Trends in B–H and B–F Distances and Dissociation Energies for in $CB_{11}H_{12-n}F_n^-$ Anions (n = 0, 1, 6, 11)" *Inorg. Chim. Acta.* **1999**, 294, 193–199 (this special issue of *ICA*, dedicated to Professor D. F. Shriver, also included a preface written by Strauss).

75. Polyakov, O. G.; Ivanova, S. M.; Gaudinski, C. M.; Miller, S. M.; Anderson, O. P.; Strauss, S. H. "$Cu(CO)_2(N(SO_2CF_3)_2)$. The First Structurally Characterized Copper(I) Polycarbonyl," *Organometallics* **1999**, *13*, 3769–3771.

74. Ivanova, S. M.; Ivanov, S. V.; Miller, S. M.; Anderson, O. P.; Solntsev, K. A.; Strauss, S. H. "Mono-, Di-, Tri-, and Tetracarbonyls of Copper(I), Including the Structures of $Cu(CO)_4(1\text{-Et-}CB_{11}F_{11})$ and $Cu(CO)_2(1\text{-Bn-}CB_{11}F_{11})$," *Inorg. Chem.* **1999**, *38*, 3756–3757 (doi 10.1021/ic990321f).

73. Lupinetti, A. J.; Jonas, V.; Thiel, W.; Frenking, G.; Strauss, S. H. "Theoretical Study of the Homoleptic d^{10} Metal Carbonyl Cations $[M(CO)_n]^{x+}$ (M^{x+} = Cu^+, Ag^+, Au^+, Zn^{2+}, Cd^{2+}, Hg^{2+}). Trends in Molecular Geometries and Electronic Structures for n = 1–6)," *Chem. Eur. J.* **1999**, *5*, 2573–2583.

72. Clark, J. F.; Chamberlin, R. M.; Abney, K. D.; and Strauss, S. H. "Design and Use of a Redox-Recyclable Organometallic Extractant for the Cationic Radionuclides $^{137}Cs^+$ and $^{90}Sr^{2+}$," *Environ. Sci. Technol.* **1999**, *33*, 2489–2491.

71. Ivanov, S. V.; Ivanova, S. M.; Miller, S. M.; Anderson, O. P.; Solntsev, K. A.; Strauss, S. H. "Synthesis and Characterization of the Anionic Fluorocarboranes 6,7,8,9,10-$CB_9H_5F_5^-$, 6,7,8,9-$CB_9H_5F_4$-10-OH^-, and 6,7,8,9-$CB_9H_5F_4$-10-$NHCOCH_3^-$," *Inorg. Chim. Acta* **1999**, *289*, 76–84.

70. Dorhout, P. K.; Strauss, S. H. "The Design, Synthesis, and Characterization of Redox-Recyclable Materials for the Efficient Extraction of Heavy Element Ions from Aqueous Waste Streams" In *Inorganic Materials Synthesis. New Directions for Advances Materials*; Winter, C. H.; Hoffman, D. M., Eds.; ACS Symposium Series 727; American Chemical Society: Washington, DC, 1999, 53–68.

69. Strauss, S. H. "In Search of a Deep Understanding of $Cu^{2+/0}$ and $Zn^{2+/0}$ $E°$ Values," *J. Chem. Ed.*, **1999**, *76*, 1095–1098.

68. Chambliss, C. K.; Strauss, S. H.; Moyer, B. A. "Comparison of the Lipophilic Redox-Recyclable Extractant $[Fe(\eta^5\text{-}C_5H_3(t\text{-}C_7H_{15})_2)_2][NO_3]$ with $[N(n\text{-}C_7H_{15})_4][NO_3]$ for Liquid-Liquid Anion-Exchange of Aqueous $^{99}TcO_4^-$," *Solvent Extr. Ion Exch.* **1999**, *17*, 553–584.

67. Barbarich, T. J.; Rithner, C. D.; Miller, S. M.; Anderson, O. P.; Strauss, S. H. "Significant Inter- and Intramolecular O–H···FC Hydrogen Bonding," *J. Am. Chem. Soc.* **1999**, *121*, 4280–4281.

66. Strauss, S. H. "Redox-Recyclable Extraction and Recovery of Heavy Metal Ions and Radionuclides From Aqueous Media," *Metal Ion Separation and Preconcentration: Progress and Opportunities*; Bond, A. H.; Dietz, M. L.; Rogers, R. D., Eds.; ACS Symposium Series 716; American Chemical Society: Washington, DC, 1999, 156–166.

65. Chambliss, C. K.; Odom, M. A.; Martin, C. R.; Moyer, B. A.; Strauss, S. H. "Rapid and Selective Redox-Recyclable Anion-Exchange Materials Containing Polyalkylated Ferricenium Anion-Exchange Sites," *Inorg. Chem. Commun.* **1998**, *1*, 435–438.

64. Rack, J. J.; Polyakov, O. G.; Gaudinski, C. M.; Hammel, J. W.; Kasperbauer, P.; Hochheimer, H. D.; Strauss, S. H. "Use of 0.0 mm Pathlength Gas Cell to Eliminate CO(*g*) Absorbance from High-CO-Pressure Solid-State IR Spectra of Nonclassical Metal Carbonyls," *Appl. Spectrosc.* **1998**, *52*, 1035–1038.

63. Lupinetti, A. J.; Frenking, G.; Strauss, S. H. "Nonclassical Metal Carbonyls. Appropriate Definitions Based on Theory or Experiment," *Angew. Chem., Int. Ed.* **1998**, 37, 2113–2116 (*Angew. Chem.* **1998**, *110*, 2229–2232).

62. Ivanov, S. V.; Rockwell, J. J.; Polyakov, O. G.; Gaudinski, C. M.; Anderson, O. P.; Solntsev, K. A.; Strauss, S. H. "Highly Fluorinated Weakly Coordinating Monocarborane Anions. 1-H-$CB_{11}F_{11}^-$, 1-CH_3-$CB_{11}F_{11}^-$, and the Structure of $[N(n\text{-}Bu)_4]_2[CuCl(CB_{11}F_{11})]$," *J. Am. Chem. Soc.* **1998**, *120*, 4224–4225.
See also: *Chemical & Engineering News* **1998** (May 4 issue), p 49.

61. Ivanov, S. V.; Lupinetti, A. J.; Solntsev, K. A.; Strauss, S. H. "Fluorination of B–H Bonds in Deltahedral Borane Anions with *N*-Fluoro Reagents," *J. Fluorine Chem.* **1998**, 89, 65–72.

60. Gash, A. E.; Spain, A. L.; Dysleski, L. M.; Flaschenriem, C. J.; Kalaveshi, A.; Dorhout, P. K.; Strauss, S. H. "Efficient Recovery of Elemental Mercury from Hg^{2+}-Contaminated Aqueous Media Using Redox-Recyclable Ion-Exchange Materials," *Environ. Sci. Technol.* **1998**, *32*, 1007–1012.

59. Chambliss, C. K.; Odom, M. A.; Morales, C. M. L.; Martin, C. R.; Strauss, S. H. "A New Strategy for Separating and Recovering Aqueous Ions: Redox-Recyclable Ion-Exchange Materials Containing a Physisorbed, Redox-Active, Organometallic Complex," *Anal. Chem.* **1998**, *70*, 757–765.

58. Barbarich, T. J.; Miller, S. M.; Anderson, O. P.; Strauss, S. H. "Coordination of the New Weakly Coordinating Anions $Al(OCH(CF_3)_2)_4^-$, $Al(OC(CH_3)(CF_3)_2)_4^-$, and Al(OC(Ph)-$(CF_3)_2)_4^-$ to the Monovalent Metal Ions Li^+ and Tl^+," *J. Mol. Catal.* **1998**, *128*, 289–331.

57. Shackelford, C. D.; Cotten, T. E.; Davis, M. M.; Strauss, S. H.; Rohal, K. M. "Characterizing Zinc Migration Through a High pH Sand-Clay Mixture," *Proceedings of the 14th Int'l. Conf. on Soil Mechanics and Foundation Engineering*; A. A. Balkema: Rotterdam, 1997, pp 1935–1938.

56. Lupinetti, A. J.; Fau, S.; Frenking, G.; Strauss, S. H. "Theoretical Analysis of the Bonding Between CO and Positively Charged Atoms," *J. Phys. Chem. A* **1997**, 101, 9551–9559.

55. Ivanov, S. V.; Ivanova, S. M.; Miller, S. M.; Anderson, O. P.; Kuznetsov, N. T.; Solntsev, K. A.; Strauss, S. H. "Synthesis, Spectroscopic Characterization, and Structure of closo-

1,10-$B_{10}H_8F_2^{2-}$ and Related Derivatives of $B_{10}H_{10}^{2-}$," *Coll. Czech. Chem. Commun.* **1997**, *62*, 1310–1324.

54. Rockwell, J. J.; Kloster, G. M.; Dubay, W. J.; Grieco, P. A.; Shriver, D. F.; Strauss, S. H. "$Nb(OCH(CF_3)_2)_6^-$: Prototype For a New Class of Weakly Coordinating Anions Based on Polyfluoroalkoxy Substituents," *Inorg. Chim. Acta* **1997**, *263*, 195–200.

53. Rack, J. J.; Strauss, S. H. "Polycarbonyl Cations of Cu(I), Ag(I), and Au(I): $[M(CO)_n]^+$," *Catal. Today* **1997**, *36*, 99–106.

52. Ivanov, S. V.; Rockwell, J. J.; Lupinetti, A. J.; Solntsev, K. A.; Strauss, S. H. "Regioselective Fluorination of $CB_{11}H_{12}^-$, $CB_9H_{10}^-$, and $B_{10}H_{10}^{2-}$," in Siebert, W., Ed.; *Advances in Boron Chemistry*; Royal Society of Chemistry: Cambridge, 1997, pp 430–433.

51. Shackelford, C. D.; Cotten, T. E.; Rohal, K. M.; Strauss, S. H. "Acid Buffering a High pH Soil for Zinc Diffusion," *J. Geotech. Eng.* **1997**, 123, 260–271.

50. Ivanov, S. V.; Rockwell, J. J.; Miller, S. M.; Anderson, O. P.; Solntsev, K. A.; Strauss, S. H. "Reactions of $CB_9H_{10}^-$ with Electrophiles, Including the Regioselective Mono- and Dihalogenation of the Lower Belt," *Inorg. Chem.* **1996**, *35*, 7882–7891.

49. Ivanov, S. V.; Ivanova, S. M.; Miller, S. M.; Anderson, O. P.; Solntsev, K. A.; Strauss, S. H. "Fluorination of $B_{10}H_{10}^{2-}$ with a *N*-Fluoro Reagent. A New Way to Transform B–H Bonds into B–F Bonds," *Inorg. Chem.* **1996**, *35*, 6419–6420.

48. Kharchevnikova, N. V.; D'yachkov, P. N.; Zyubin, A. S.; Solntsev, K. A.; Kuznetsov, N. T.; Ivanov, S. V.; Strauss, S. H. (Shtraus, S. Kh.) "Quantum Chemical Data on the Mechanism of Fluorination of $B_{11}CH_{12}^-$ Cluster," *Dokl. Akad. Nauk* (English translation) **1996**, *350*, 650–652.

47. Clark, J. F.; Clark, D. L.; Whitener, G. D.; Schroeder, N. C.; Strauss, S. H. "Isolation of Soluble ^{99}Tc As a Compact Solid Using a Recyclable, Redox-Active, Metal-Complex Extractant," *Environ. Sci. Technol.* **1996**, *30*, 3124–3126.

46. Barbarich, T. J.; Handy, S. T.; Miller, S. M.; Anderson, O. P.; Grieco, P. A.; Strauss, S. H. "$LiAl(OC(Ph)(CF_3)_2)_4$. A Hydrocarbon Soluble Catalyst for Carbon-Carbon Bond Formation Reactions," *Organometallics* **1996**, *15*, 3776–3778.

45. Rohal, K. M.; Van Seggen, D. M.; Clark, J. F.; Van Egeren, M. K.; Chambliss, C. K.; Strauss, S. H.; Schroeder, N. C. "Solvent Extraction of Pertechnetate and Perrhenate Ions From Nitrate-Rich Acidic and Alkaline Aqueous Solutions," *Solvent Extr. Ion Exch.* **1996**, *14*, 401–416.

44. Rack, J. J.; Hurlburt, P. K.; Kellett, P. J.; Luck, J. S.; Anderson, O. P.; Strauss, S. H. "Complexation of $Zn(OTeF_5)_2$ by Weakly Coordinating Solvents and Single-Crystal X-Ray Structures of $[Zn(OTeF_5)_2(PhNO_2)_2]_2$ and $Zn(OTeF_5)_2(PhNO_2)_3$," *Inorg. Chim. Acta* **1996**, *242*, 71–79.

43. Rack, J. J.; Webb, J. D.; Strauss, S. H. "Formation of $Cu(CO)_n^+$ (n = 1,2,3) in the Solid State," *Inorg. Chem.* **1996**, *35*, 277–278.

42. Ivanov, S. V.; Lupinetti, A. J.; Miller, S. M.; Anderson, O. P.; Solntsev, K. A.; Strauss, S. H. "Regioselective Fluorination of $CB_{11}H_{12}^-$. New Weakly Coordinating Anions," *Inorg. Chem.* **1995**, *34*, 6419–6420.

41. Van Seggen, D. M.; Hurlburt, P. K.; Anderson, O. P.; Strauss, S. H. "Weakly Coordinating Anions $M(OTeF_5)_6^-$ (M = Nb, Sb) and $M(OTeF_5)_6^{2-}$ (M = Ti, Zr, Hf): Two-Step Synthesis, Characterization, Stability, and Use in the Isolation of the Dihaloalkane Complex Cations $Ag(CH_2Cl_2)_3^+$, $Ag(CH_2Br_2)_3^+$, and *catena*-poly[$Ag(1,2\text{-}C_2H_4Br_2)_2$-μ-(1,2-$C_2H_4Br_2$)-*Br*:*Br*']$^+$," *Inorg. Chem.* **1995**, *34*, 3453–3464.

40. Mylrajan, M.; Andersson, L. A.; Loehr, T. M.; Sullivan Jr., E. P.; Thomas, C. S.; Thompson, M. A.; Anderson, O. P.; Strauss, S. H. "Core-Size Correlations for Crystallographically Defined Iron Porphyrin Complexes," *Inorg. Chem.* **1995**, *34*, 3953–3963.

39. Hurlburt, P. K.; Rack, J. J.; Luck, J. S.; Dec, S. F.; Webb, J. D.; Anderson, O. P.; Strauss, S. H. "Nonclassical Metal Carbonyls. $[Ag(CO)]^+$ and $[Ag(CO)_2]^+$," *J. Am. Chem. Soc.* **1994**, *116*, 10003–10014.

38. Hurlburt, P. K.; Van Seggen, D. M.; Rack, J. J.; Strauss, S. H. "Can Large Polyfluorinated Anions Be Used to Generate Coordinative Unsaturation in Cations?" In *Inorganic Fluorine Chemistry Toward the 21st Century* (ACS Symp. Series No. 555); Thrasher, J. S.; Strauss, S. H., Eds.; American Chemical Society: Washington, D.C., 1994; pp 338–349 (this book also included an introductory chapter written by Strauss and J. S. Thrasher).

37. Rack, J. J.; Moasser, B.; Gargulak, J. D.; Gladfelter, W. L.; Hochheimer, H. D.; Strauss, S. H. "Infrared and Manometric Evidence for the Formation of the $Ag(CO)_3^+$ Complex Ion at High P_{CO}," *J. Chem. Soc., Chem. Commun.* **1994**, 685–686.

36. Strauss, S. H. "The Search for Larger and More Weakly Coordinating Anions," *Chem. Rev.* **1993**, *93*, 927–942.

35. Hurlburt, P. K.; Rack, J. J.; Dec, S. F.; Anderson, O. P.; Strauss, S. H. "$[Ag(CO)_2][B(OTeF_5)_4]$. The First Structurally Characterized $M(CO)_2$ Complex," *Inorg. Chem.* **1993**, *32*, 373–374.

34. Van Seggen, D. M.; Hurlburt, P. K.; Anderson, O. P.; Strauss, S. H. "Larger and More Weakly Coordinating Anions: $Nb(OTeF_5)_6^-$ and $Ti(OTeF_5)_6^{2-}$," *J. Am. Chem. Soc.* **1992**, *114*, 10995–10997.

33. Van Seggen, D. M.; Anderson, O. P.; Strauss, S. H. "A Chloroalkane-Silver Complex With a Monodentate RCl→Ag(I) Interaction," *Inorg. Chem.* **1992**, *31*, 2987–2990.

32. Van Seggen, D. M.; Hurlburt, P. K.; Noirot, M. D.; Anderson, O. P.; Strauss, S. H. "Tetrakis(pentafluorooxotellurato)borate(1–). Coordinating Ability and Reactivity of a Very Large Weakly Coordinating Anion," *Inorg. Chem.* **1992**, *31*, 1423–1430.

31. Andersson, L. A.; Mylrajan, M.; Loehr, T. M.; Sullivan Jr., E. P.; Strauss, S. H. "Modeling Biological Iron Hydroporphyrins: Comparative Resonance Raman Spectroscopy," *New J. Chem.* **1992**, *16*, 569–576.

30. Hurlburt, P. K.; Anderson, O. P.; Strauss, S. H. "Preparation and Characterization of Tl(1,2-$C_2H_4Cl_2$)$B(OTeF_5)_4$: A Metal Complex of a Least Coordinating Solvent and a Least Coordinating Anion," *Can. J. Chem.* **1992**, *70*, 726–731.

29. Hurlburt, P. K.; Anderson, O. P.; Strauss, S. H. "Ag(CO)$B(OTeF_5)_4$: The First Isolable Silver Carbonyl," *J. Am. Chem. Soc.* **1991**, *113*, 6277–6278.
See also: *Chemical & Engineering News* **1991** (August 12 issue), p 27.

28. Sullivan Jr., E. P.; Grantham, J. D.; Thomas, C. S.; Strauss, S. H. "Proton NMR Study of High-Spin Iron(III) Isobacteriochlorins. The Effects of Five- vs. Six-Coordination and Comparisons With Homologous Porphyrin and Chlorin Complexes," *J. Am. Chem. Soc.* **1991**, *113*, 5264–5270.

27. Melamed, D.; Sullivan Jr., E. P.; Kushmeider, K.; Strauss, S. H.; Spiro, T. G. "Analysis of a Siroheme Model Compound: Core Size Dependence of Resonance Raman Bands and the Siroheme Spin State in Sulfite Reductase," *Inorg. Chem.* **1991**, *30*, 1308–1319.

26. Andersson, L. A.; Loehr, T. M.; Thompson, R. G.; Strauss, S. H., "The Influence of Symmetry on the Vibrational Spectra of Zn(TPP), Zn(TPC), and Zn(TPiBC)," *Inorg. Chem.* **1990**, *29*, 2142–2147.

25. Hurlburt, P. K.; Kellett, P. J.; Anderson, O. P.; Strauss, S. H. "Nitrobenzene as a Monodentate (*O*) and Bidentate (*O,O'*) Ligand: Synthesis and Structures of $Zn(C_6H_5NO_2)_n(OTeF_5)_2$ (n = 2, 3)," *J. Chem. Soc., Chem. Commun.* **1990**, 576–578.

24. Colsman, M .R.; Newbound, T. D.; Marshall, L. J.; Noirot, M. D.; Miller, M. M.; Wulfsberg, G. P.; Frye, J. S.; Anderson, O. P.; Strauss, S. H. "Silver(I) Complexes of Dichloromethane and 1,2-Dichloroethane," *J. Am. Chem. Soc.* **1990**, *112*, 2349–2362.

23. Andersson, L. A.; Mylrajan, M.; Sullivan Jr., E. P.; Strauss, S. H., "Modeling Low pH Hemoproteins," *J. Biol. Chem.* **1989**, *264*, 19099–19102.

22. Kellett, P. J.; Anderson, O. P.; Strauss, S. H.; and Abney, K. D. "Solid-State Motion of $OTeF_5^-$ Compounds: Detection by ^{19}F NMR and IR Spectroscopy and Correlation with the X-ray Structure of an Orthorhombic Crystalline Modification of $[C_{14}H_{19}N_2^+][OTeF_5^-]$ ($C_{14}H_{19}N_2^+$ = Protonated 1,8-*bis*(dimethylaminonaphthalene)," *Can. J. Chem.* **1989**, *67*, 2023–2029.

21. Sullivan Jr., E. P.; Strauss, S. H. "Reversible CO Binding to Iron(III) Isobacteriochlorins," *Inorg. Chem.* **1989**, *28*, 3093–3095.

20. Han, S.; Madden, J. F.; Thompson, R. G.; Strauss, S. H.; Siegel, L. M.; Spiro, T. G. "Resonance Raman Studies of *Escherichia coli* Sulfite Reductase Hemoprotein. 1. Siroheme Vibrational Modes," *Biochemistry* **1989**, *28*, 5461–5471.

19. Newbound, T. D.; Colsman, M. R.; Miller, M. M.; Wulfsberg, G. P.; Anderson, O. P.; Strauss, S. H. "Dichloromethane is a Coordinating Solvent," *J. Am. Chem. Soc.* **1989**, *111*, 3762–3764.

18. Kellett, P. J.; Pawlik, M. J.; Thompson, R. G.; Taylor, L. F.; Levstik, M. A.; Anderson, O. P.; Strauss, S. H. "Five- and Six-Coordinate High-Spin Iron(III) Porphyrin Complexes with Teflate ($OTeF_5^-$) Ligands," *Inorg. Chem.* **1989**, *28*, 440–447.

17. Colsman, M. R.; Noirot, M. D.; Miller, M. M.; Anderson, O. P.; Strauss, S. H. "Lewis Basicity of the 'Noncoordinating' Common Solvent 1,2-Dichloromethane: Strong RCl→Ag Bonding in $AgOTeF_5(1,2\text{-}C_2H_4Cl_2)$," *J. Am. Chem. Soc.* **1988**, *110*, 6886–6888. See also: *Chemical & Engineering News* **1988** (October 10 issue), 33.

16. Miller, P. K.; Abney, K. D.; Rappé , A. K.; Anderson, O. P.; Strauss, S. H. "Electronic and Molecular Structure of $OTeF_5^-$," *Inorg. Chem.* **1988**, *27*, 2255–2261.

15. Pawlik, M. J.; Miller, P. K.; Sullivan Jr., E. P.; Levstik, M. A.; Almond, D. A.; Strauss, S. H. "Comparison of Variable Temperature ^1H NMR Spectra of Five-Coordinate High-Spin (S = 5/2) Iron(III) Porphyrins and Chlorins," *J. Am. Chem. Soc.* **1988**, *110*, 3007–3012.

14. Colsman, M. R.; Manning, M. C.; Anderson, O. P.; Strauss, S. H. "Preparation and Characterization of Palladium(II) and Platinum(II) $OTeF_5$ Complexes," *Inorg. Chem.* **1987**, *27*, 3958–3960.

13. Abney, K. D.; Long, K. M.; Anderson, O. P.; Strauss, S. H. "Preparation and Properties of Metal Carbonyl Teflates, Including the Structure and Reactivity of $Mn(CO)_5(OTeF_5)$," *Inorg. Chem.* **1987**, *26*, 2638–2643.

12. Noirot, M. D.; Anderson, O. P.; Strauss, S. H., "A New Candidate for the Least Coordinating Anion: Preparation and Characterization of $[TlOTeF_5(mes)_2]_2$·mes (mes = mesitylene) and $[Tl(mes)_2^+][B(OTeF_5)_4^-]$," *Inorg. Chem.* **1987**, *26*, 2216–2223.

11. Strauss, S. H.; Pawlik, M. J.; Skowyra, J.; Kennedy, J. R.; Anderson, O. P.; Spartalian, K.; Dye, J. L. "Comparison of the Molecular and Electronic Structures of μ-Oxobis-(5,10,15,20-tetraphenylporphyrinato)iron(III) and μ-Oxobis(7,8-dihydro-5,10,15,20-tetra-phenylporphyrinato)iron(III)," *Inorg. Chem.* **1987**, *26*, 724–730.

10. Strauss, S. H.; Long, K. M.; Magerstadt, M.; Gansow, O. A. "Iron Porphyrin and Hydroporphyrin Magnetic Anisotropies Derived From High-Field ^2H NMR Spectra," *Inorg. Chem.* **1987**, *26*, 1185–1187.

9. Strauss, S. H.; Noirot, M. D.; Anderson, O. P. "Teflate ($OTeF_5^-$) as a Unique Ligand for Metal Complexes: Structure of $[TlOTeF_5(1,3,5\text{-}(CH_3)_3C_3H_3)_2]_2$, a Thallium(I) Complex with Neutral Arene Ligands," *Inorg. Chem.* **1986**, *25*, 3850–3851.

8. Strauss, S. H.; Thompson, R. G. "Rates of Pi-Electron Oxidation and Reduction of Free Base and Zn(II) Porphyrins, Chlorins, and Isobacteriochlorins," *J. Inorg. Biochem.* **1986**, *27*, 173–177.

7. Strauss, S. H.; Pawlik, M. J. "Ring-Induced Rhombicity in Chlorin and Isobacteriochlorin Complexes of Square-Planar Iron(II)," *Inorg. Chem.* **1986**, *25*, 1921–1923.

6. Strauss, S. H.; Abney, K. D.; Anderson, O. P. "An Unusual Hydrogen Bond Between Oxygen Atoms: Preparation and Characterization of $[N(n\text{-}Bu)_4^+][H(OTeF_5)_2^-]$," *Inorg. Chem.* **1986**, *25*, 2806–2812.

5. Strauss, S. H.; Noirot, M. D.; Anderson, O. P. "Preparation and Characterization of Silver(I) Teflate Complexes: Bridging $OTeF_5$ Groups in the Solid State and in Solution," *Inorg. Chem.* **1985**, *24*, 4307–4311.

4. Strauss, S. H.; Silver, M. E.; Long, K. M.; Thompson, R. G.; Hudgens, R. A.; Spartalian, K.; Ibers, J. A. "Comparison of the Molecular and Electronic Structure of (2,3,7,8,12,13,17,18-Octaethylporphyrinato)iron(II) and (*trans*-7,8-dihydro-2,3,7,8,12,13,-17,18-octaethyl-porphyrinato)iron(II)," *J. Am. Chem. Soc.* **1985**, *107*, 4207–4215.

3. Strauss, S. H.; Abney, K. D.; Long, K. M.; Anderson, O. P. "Low-Valent Metal Teflates: Preparation and Characterization of $Mn(CO)_5(OTeF_5)$," *Inorg. Chem.* **1984**, *23*, 1994–1995.

2. Strauss, S. H.; Abney, K. D. "Sigma- and Pi-Acidity of $As(OTeF_5)_3$," *Inorg. Chem.* **1984**, *23*, 515–516.

1. Strauss, S. H.; Silver, M. E.; Ibers, J. A. "Iron(II) Octaethylchlorin: Structure and Ligand Affinity Comparison with its Porphyrin and Isobacteriochlorin Homologues," *J. Am. Chem. Soc.* **1983**, *105*, 4108–4109.

Books

B2. Strauss, S. H. *Guide to Solutions for Inorganic Chemistry, 3nd Edition*; Oxford University Press: Oxford, England, 1999.

B1. Thrasher J. S.; Strauss, S. H., Eds. *Inorganic Fluorine Chemistry Toward the 21st Century* (ACS Symposium Series No. 555); American Chemical Society: Washington, DC, 1994.

Non-Peer-Review Publications as Principle Investigator at Colorado State University

N11. Strauss, S. H. "Angewandte Author Profile—Steven H. Strauss," *Angew. Chem. Int. Ed.* **2014**, *53*, 36–37.

N10. zur Loye, H.; Strauss, S. H. "Obituary for Duward F. Shriver," *Angew. Chem. Int. Ed.* **2013**, *52*, 10692.

N9. Odom, Matthew A.; Hebert, Gretchen N.; Clapsaddle, Brady J.; Strauss, Steven H. "Monitoring Low Levels of Ionic Pollutants In Water Using Attenuated Total Reflectance Infrared Spectroscopy," in *Proceedings of the First Joint Conference on Point Detection, Williamsburg, VA, October 2000*; Science and Technology Corporation: Hampton, VA, 2001, 158–167.

N8. Havighurst, M. D.; Lupinetti, A. J.; Strauss, S. H. "Quantum Chemical Calculations and Experimental Evidence for *O*-bonding of Carbon Monoxide to Alkali Metal Cations in Zeolites"; "Infrared Spectra and Density Functional Calculations for OMCO, OM-(η^2-CO), $OMCO^+$, and $OMOC^+$ (M = V, Ti) in Solid Argon," *Chemtracts–Inorg. Chem.* **2000**, *13*, 565–579.

N7. Strauss, S. H. "Isolation and Structure of the $OCNCO^+$ Ion; Existence of the Halocarbonyl and Trifluoromethyl Cations in the Condensed Phase," *Chemtracts–Inorg. Chem.* **2000**, *13*, 145–151.

N6. Lupinetti, A. J.; Strauss, S. H. "Superweak Anions—Chemistry and Catalysis. A Symposium Report," *Chemtracts–Inorg. Chem.* **1998**, *11*, 565–595.

N5. Strauss, S. H. "Nonclassical Metal Carbonyls," *Chemtracts–Inorg. Chem.* **1997**, *10*, 77–103.

N4. Thrasher J. S.; Strauss, S. H. "Fluorine Chemistry Toward the 21st Century," In *Inorganic Fluorine Chemistry Toward the 21st Century* (ACS Symp. Series No. 555); Thrasher, J. S.; Strauss, S. H., Eds.; American Chemical Society: Washington, D.C., 1994; pp 1–23.

N3. Strauss, S. H. "Isolable Zirconium(IV) Carbonyl Complexes. Synthesis and Characterization of $(C_5R_5)_2Zr(\eta^2\text{-}COCH_3)(CO)^+$ Species (R = Me, H); A Thermally Stable Carbonyl Complex of Zirconium(IV). Structure and Reactivity Ramifications of Strong $\sigma \rightarrow \pi^*$ Electron Donation," *Chemtracts–Inorg. Chem.* **1994**, *6*, 157–162.

N2. Strauss, S. H. "Coordinative Unsaturation. A New Look At an Old Idea," *Chemtracts–Inorg. Chem.* **1994**, *6*, 1–13.

N1. S. H. Strauss, "Crystal Structure of a Silyl Cation with No Coordination to Anion and Distant Coordination to Solvent; A New Weakly Coordinating Anion: Approaching the Silylium (Silicenium) Ion," *Chemtracts–Inorg. Chem.* **1993**, *5*, 119–124.