

Stephan P A Sauer

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9484998/publications.pdf>

Version: 2024-02-01

207
papers

8,820
citations

66250

44
h-index

60403

85
g-index

220
all docs

220
docs citations

220
times ranked

5857
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | A tale of two vectors: A Lanczos algorithm for calculating RPA mean excitation energies. <i>Journal of Chemical Physics</i> , 2022, 156, 014102. | 1.2 | 1 |
| 2 | Extending NMR Quantum Computation Systems by Employing Compounds with Several Heavy Metals as Qubits. <i>Magnetochemistry</i> , 2022, 8, 47. | 1.0 | 5 |
| 3 | Calculation of mean excitation energies of 3d-elements and their cations. <i>Molecular Physics</i> , 2021, 119, e1823508. | 0.8 | 4 |
| 4 | Estimating the accuracy of calculated electron paramagnetic resonance hyperfine couplings for a lytic polysaccharide monooxygenase. <i>Computational and Structural Biotechnology Journal</i> , 2021, 19, 555-567. | 1.9 | 11 |
| 5 | Free Molecule Studies by Perturbed $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"> \langle \text{mml:mrow} \langle \text{mml:mi} \hat{I}^3 \rangle \langle \text{mml:mi} \rangle \langle \text{mml:mtext} \hat{=} \rangle \langle \text{mml:mtext} \rangle \langle \text{mml:mi} \hat{I}^3 \rangle \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ Angular Correlation: A New Path to Accurate Nuclear Quadrupole Moments. <i>Physical Review Letters</i> , 2021, 126, 103001. | 2.9 | 15 |
| 6 | A Density Functional Theory Study of Optical Rotation in Some Aziridine and Oxirane Derivatives. <i>ChemPhysChem</i> , 2021, 22, 764-774. | 1.0 | 2 |
| 7 | Azo-hydrazone molecular switches: Synthesis and NMR conformational investigation. <i>Magnetic Resonance in Chemistry</i> , 2021, 59, 1116-1125. | 1.1 | 5 |
| 8 | A QM/MM study of the conformation stability and electronic structure of the photochromic switches derivatives of DHA/VHF in acetonitrile solution. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2021, 251, 119434. | 2.0 | 10 |
| 9 | Benchmarking Correlated Methods for Static and Dynamic Polarizabilities: The T145 Data Set Evaluated with RPA, RPA(D), HRPDA, HRPDA(D), SOPPA, SOPPA(CC2), SOPPA(CCSD), CC2, and CCSD. <i>Journal of Physical Chemistry A</i> , 2021, 125, 3785-3792. | 1.1 | 5 |
| 10 | The best density functional theory functional for the prediction of ^1H and ^{13}C chemical shifts of protonated alkylypyrroles. <i>Journal of Computational Chemistry</i> , 2021, 42, 1248-1262. | 1.5 | 5 |
| 11 | Importance of Relativistic Effects for Carbon as an NMR Reporter Nucleus in Carbide-Bridged [RuCpT] Complexes. <i>Organometallics</i> , 2021, 40, 1443-1453. | 1.1 | 4 |
| 12 | The aug-cc-pVTZ basis set for the p-block fourth-row elements Ga, Ge, As, Se, and Br. <i>Magnetic Resonance in Chemistry</i> , 2021, 59, 1134-1145. | 1.1 | 6 |
| 13 | Prediction of the standard potentials for one-electron oxidation of N^{I} , N^{II} , N^{III} , N^{IV} tetrasubstituted p-phenylenediamines by calculation. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 20340-20351. | 1.3 | 3 |
| 14 | Benchmarking anisotropic polarizabilities for 14 (hetero)aromatic molecules at RPA, RPA(D), HRPDA, HRPDA(D), SOPPA, SOPPA(CC2), SOPPA(CCSD) and CC3 levels. <i>International Journal of Quantum Chemistry</i> , 2021, 121, e26593. | 1.0 | 3 |
| 15 | On the Unexpected Accuracy of the M06L Functional in the Calculation of ^1J and ^1FC Spin-Spin Coupling Constants. <i>Journal of Chemical Theory and Computation</i> , 2021, 17, 7712-7723. | 2.3 | 10 |
| 16 | Noniterative Doubles Corrections to the Random Phase and Higher Random Phase Approximations: Singlet and Triplet Excitation Energies. <i>Journal of Computational Chemistry</i> , 2020, 41, 43-55. | 1.5 | 17 |
| 17 | NMR parameters of FNNF as a test for coupled-cluster methods: CCSDT shielding and CC3 spin-spin coupling. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 21350-21359. | 1.3 | 10 |
| 18 | Benchmarking doubles-corrected random-phase approximation methods for frequency dependent polarizabilities: Aromatic molecules calculated at the RPA, HRPDA, RPA(D), HRPDA(D), and SOPPA levels. <i>Journal of Chemical Physics</i> , 2020, 152, 234101. | 1.2 | 10 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | RPA(D) and HRP(A)D): calculation of carbon-carbon spin-spin coupling constants for saturated cycloalkanes. <i>Molecular Physics</i> , 2020, 118, . | 0.8 | 9 |
| 20 | Interfacial tension in water/n-decane/naphthenic acid systems predicted by a combined COSMO-RS theory and pendant drop experimental study. <i>Molecular Physics</i> , 2020, 118, e1764645. | 0.8 | 3 |
| 21 | Dalton Project: A Python platform for molecular- and electronic-structure simulations of complex systems. <i>Journal of Chemical Physics</i> , 2020, 152, 214115. | 1.2 | 45 |
| 22 | Enhancing NMR Quantum Computation by Exploring Heavy Metal Complexes as Multiqubit Systems: A Theoretical Investigation. <i>Journal of Physical Chemistry A</i> , 2020, 124, 4946-4955. | 1.1 | 12 |
| 23 | On the relationship between bond correction factors and elemental mean excitation energies. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2020, 474, 6-9. | 0.6 | 0 |
| 24 | Bond correction factors and their applications to the calculation of molecular mean excitation energies. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2020, 468, 28-36. | 0.6 | 2 |
| 25 | The Second-Order-Polarization-Propagator-Approximation (SOPPA) in a four-component spinor basis. <i>Journal of Chemical Physics</i> , 2020, 152, 134113. | 1.2 | 16 |
| 26 | Benchmarking Correlated Methods for Frequency-Dependent Polarizabilities: Aromatic Molecules with the CC3, CCSD, CC2, SOPPA, SOPPA(CC2), and SOPPA(CCSD) Methods. <i>Journal of Chemical Theory and Computation</i> , 2020, 16, 3006-3018. | 2.3 | 10 |
| 27 | Computational Prediction of ^1H and ^{13}C NMR Chemical Shifts for Protonated Alkylpyrroles: Electron Correlation and Not Solvation is the Salvation. <i>ChemPhysChem</i> , 2019, 20, 78-91. | 1.0 | 15 |
| 28 | Bound and continuum state contributions to dipole oscillator strength sum rules: Total and orbital mean excitation energies for cations of C, F, Si, and Cl. <i>Advances in Quantum Chemistry</i> , 2019, 80, 127-146. | 0.4 | 3 |
| 29 | Calculation of mean excitation energies. <i>Advances in Quantum Chemistry</i> , 2019, 80, 225-245. | 0.4 | 10 |
| 30 | Determining short-lived solid forms during phase transformations using molecular dynamics. <i>CrystEngComm</i> , 2019, 21, 4020-4024. | 1.3 | 16 |
| 31 | Test of the validity of Bragg's rule for mean excitation energies of small molecules and ions. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2019, 444, 112-116. | 0.6 | 6 |
| 32 | Mean excitation energies of singly charged atomic anions with $Z \leq 18$. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2019, 52, 095004. | 0.6 | 5 |
| 33 | Entropy/Enthalpy Compensation in Anion Binding: Biotin[6]uril and Biotin-sulfoxide[6]uril Reveal Strong Solvent Dependency. <i>Journal of Organic Chemistry</i> , 2019, 84, 2577-2584. | 1.7 | 23 |
| 34 | Through-space spin-spin coupling constants involving fluorine: benchmarking DFT functionals. <i>Molecular Physics</i> , 2019, 117, 1469-1480. | 0.8 | 18 |
| 35 | On the convergence of the cc-pVXZ and pcj-n basis sets in CCSD calculations of nuclear spin-spin coupling constants: some difficult cases. <i>Theoretical Chemistry Accounts</i> , 2018, 137, 1. | 0.5 | 14 |
| 36 | Theoretical study of the NMR chemical shift of Xe in supercritical condition. <i>Journal of Molecular Modeling</i> , 2018, 24, 62. | 0.8 | 3 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Frontispiece: Relativistic DFT Calculations of Hyperfine Coupling Constants in 5d Hexafluorido Complexes: [ReF ₆] ²⁺ and [IrF ₆] ²⁺ . Chemistry - A European Journal, 2018, 24, . | 1.7 | 1 |
| 38 | Relativistic DFT Calculations of Hyperfine Coupling Constants in 5d Hexafluorido Complexes: [ReF ₆] ²⁺ and [IrF ₆] ²⁺ . Chemistry - A European Journal, 2018, 24, 5124-5133. | 1.7 | 16 |
| 39 | Direct observation of Mg ²⁺ complexes in ionic liquid solutions by ³¹ Mg \hat{I}^2 -NMR spectroscopy. Dalton Transactions, 2018, 47, 14431-14435. | 1.6 | 12 |
| 40 | RPA(D) and HRPA(D): Two new models for calculations of NMR indirect nuclear spin-spin coupling constants. Journal of Computational Chemistry, 2018, 39, 2647-2666. | 1.5 | 21 |
| 41 | The influence of relativistic effects on nuclear magnetic resonance spin-spin coupling constant polarizabilities of H ₂ O, H ₂ S, H ₂ Se, and H ₂ Te. Journal of Computational Chemistry, 2018, 39, 2589-2600. | 1.5 | 7 |
| 42 | Analysis of the interactions in FCCF:(H ₂ O) and FCCF:(H ₂ O) ₂ complexes through the study of their indirect spin-spin coupling constants. Molecular Physics, 2018, 116, 2396-2405. | 0.8 | 8 |
| 43 | A Physical Model of the Proton Radiation Belts of Jupiter inside Europa's Orbit. Journal of Geophysical Research: Space Physics, 2018, 123, 3512-3532. | 0.8 | 30 |
| 44 | Z-dependence of mean excitation energies for second and third row atoms and their ions. Journal of Chemical Physics, 2018, 148, 174307. | 1.2 | 13 |
| 45 | Development of polarization consistent basis sets for spin-spin coupling constant calculations for the atoms Li, Be, Na, and Mg. Journal of Chemical Physics, 2018, 149, 044117. | 1.2 | 22 |
| 46 | The role of explicit solvent molecules in the calculation of NMR chemical shifts of glycine in water. Theoretical Chemistry Accounts, 2018, 137, 1. | 0.5 | 16 |
| 47 | Azadioxatriangulenium and Diazaoxatriangulenium: Quantum Yields and Fundamental Photophysical Properties. ACS Omega, 2017, 2, 193-203. | 1.6 | 29 |
| 48 | Quadrupole moments of Cd and Zn nuclei: When solid-state, molecular, atomic, and nuclear theory meet. Europhysics Letters, 2017, 117, 62001. | 0.7 | 21 |
| 49 | Mean excitation energies for molecular ions. Nuclear Instruments & Methods in Physics Research B, 2017, 394, 73-80. | 0.6 | 12 |
| 50 | Importance of Triples Contributions to NMR Spin-Spin Coupling Constants Computed at the CC3 and CCSDT Levels. Journal of Chemical Theory and Computation, 2017, 13, 696-709. | 2.3 | 41 |
| 51 | Molecular Switching in Confined Spaces: Effects of Encapsulating the DHA/VHF Photo-switch in Cucurbiturils. Chemistry - A European Journal, 2017, 23, 17010-17016. | 1.7 | 23 |
| 52 | On the convergence of zero-point vibrational corrections to nuclear shieldings and shielding anisotropies towards the complete basis set limit in water. Molecular Physics, 2017, 115, 144-160. | 0.8 | 19 |
| 53 | Continuum Contributions to Dipole Oscillator-Strength Sum Rules for Hydrogen in Finite Basis Sets. Advances in Quantum Chemistry, 2017, 75, 229-241. | 0.4 | 8 |
| 54 | Calculation of dipole polarizability derivatives of adamantane and their use in electron scattering computations. European Physical Journal D, 2016, 70, 1. | 0.6 | 5 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 55 | The Effect of Solvation on the Radiation Damage Rate Constants for Adenine. <i>ChemPhysChem</i> , 2016, 17, 3086-3095. | 1.0 | 5 |
| 56 | Spin-orbit ZORA and four-component Dirac-Coulomb estimation of relativistic corrections to isotropic nuclear shieldings and chemical shifts of noble gas dimers. <i>Journal of Computational Chemistry</i> , 2016, 37, 395-403. | 1.5 | 14 |
| 57 | DFT and experimental studies on structure and spectroscopic parameters of 3,6-diiodo-9-ethyl-9H-carbazole. <i>Structural Chemistry</i> , 2016, 27, 199-207. | 1.0 | 12 |
| 58 | Ligand Sphere Conversions in Terminal Carbide Complexes. <i>Organometallics</i> , 2016, 35, 100-105. | 1.1 | 20 |
| 59 | Rovibrational and Temperature Effects in Theoretical Studies of NMR Parameters. <i>New Developments in NMR</i> , 2016, , 218-266. | 0.1 | 23 |
| 60 | On the truncation of the number of excited states in density functional theory sum-over-states calculations of indirect spin spin coupling constants. <i>Journal of Chemical Physics</i> , 2015, 143, 244107. | 1.2 | 3 |
| 61 | Insight into the Mechanism of the Initial Reaction of an OH Radical with DNA/RNA Nucleobases: A Computational Investigation of Radiation Damage. <i>Chemistry - A European Journal</i> , 2015, 21, 17786-17799. | 1.7 | 18 |
| 62 | SOPPA and CCSD vibrational corrections to NMR indirect spin-spin coupling constants of small hydrocarbons. <i>AIP Conference Proceedings</i> , 2015, , . | 0.3 | 13 |
| 63 | The Mean Excitation Energy of Atomic Ions. <i>Advances in Quantum Chemistry</i> , 2015, , 29-40. | 0.4 | 14 |
| 64 | Kinetics and Thermodynamics of the Reaction between the OH Radical and Adenine: A Theoretical Investigation. <i>Journal of Physical Chemistry A</i> , 2015, 119, 6516-6527. | 1.1 | 21 |
| 65 | Molecular modeling and experimental studies on structure and NMR parameters of 9-benzyl-3,6-diiodo-9H-carbazole. <i>Structural Chemistry</i> , 2015, 26, 997-1006. | 1.0 | 18 |
| 66 | Exploring the relationship between the conformation and pK_a : can a pK_a value be used to determine the conformational equilibrium?. <i>Organic and Biomolecular Chemistry</i> , 2015, 13, 3116-3121. | 1.5 | 13 |
| 67 | Performance of SOPPA-based methods in the calculation of vertical excitation energies and oscillator strengths. <i>Molecular Physics</i> , 2015, 113, 2026-2045. | 0.8 | 31 |
| 68 | Anion binding by biotin[6]juril in water. <i>Organic and Biomolecular Chemistry</i> , 2015, 13, 369-373. | 1.5 | 76 |
| 69 | Optimizing the Structure of Tetracyanoplatinate (II): A Comparison of Relativistic Density Functional Theory Methods. <i>Current Inorganic Chemistry</i> , 2014, 3, 213-219. | 0.2 | 7 |
| 70 | On the Use of Locally Dense Basis Sets in the Calculation of EPR Hyperfine Couplings: A Study on Model Systems for Bio-Inorganic Fe and Co Complexes. <i>Current Inorganic Chemistry</i> , 2014, 3, 270-283. | 0.2 | 6 |
| 71 | Communication: Localized molecular orbital analysis of the effect of electron correlation on the anomalous isotope effect in the NMR spin-spin coupling constant in methane. <i>Journal of Chemical Physics</i> , 2014, 141, 151101. | 1.2 | 8 |
| 72 | The Second-Order Polarization Propagator Approximation (SOPPA) method coupled to the polarizable continuum model. <i>Computational and Theoretical Chemistry</i> , 2014, 1040-1041, 54-60. | 1.1 | 9 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 73 | The Dalton quantum chemistry program system. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2014, 4, 269-284. | 6.2 | 1,166 |
| 74 | Coupled cluster calculations of mean excitation energies of the noble gas atoms He, Ne and Ar and of the H ₂ molecule. Molecular Physics, 2014, 112, 751-761. | 0.8 | 12 |
| 75 | On the transferability of atomic contributions to the optical rotatory power of hydrogen peroxide, methyl hydroperoxide and dimethyl peroxide. Molecular Physics, 2014, 112, 1624-1632. | 0.8 | 3 |
| 76 | First example of a high-level correlated calculation of the indirect spin-spin coupling constants involving tellurium: tellurophene and divinyl telluride. Physical Chemistry Chemical Physics, 2013, 15, 13101-13107. | 1.3 | 30 |
| 77 | Failures of TDDFT in describing the lowest intramolecular charge-transfer excitation in <i>p</i> -nitroaniline. Molecular Physics, 2013, 111, 1235-1248. | 0.8 | 79 |
| 78 | On the Determination of the Mean Excitation Energy of Water. Advances in Quantum Chemistry, 2013, 65, 63-77. | 0.4 | 14 |
| 79 | Halogen effect on structure and ¹³ C NMR chemical shift of 3,6-disubstituted <i>N</i> -alkyl carbazoles. Magnetic Resonance in Chemistry, 2013, 51, 630-635. | 1.1 | 27 |
| 80 | Magnetic interactions in oxide-bridged dichromium(III) complexes. Computational determination of the importance of non-bridging ligands. Inorganica Chimica Acta, 2013, 396, 72-77. | 1.2 | 10 |
| 81 | Estimation of isotropic nuclear magnetic shieldings in the CCSD(T) and MP2 complete basis set limit using affordable correlation calculations. Magnetic Resonance in Chemistry, 2013, 51, 482-489. | 1.1 | 24 |
| 82 | Validating and Analyzing EPR Hyperfine Coupling Constants with Density Functional Theory. Journal of Chemical Theory and Computation, 2013, 9, 2380-2388. | 2.3 | 29 |
| 83 | Effective potential energy curves of the ground electronic state of CH ⁺ . Journal of Chemical Physics, 2013, 138, 024315. | 1.2 | 19 |
| 84 | Relation between properties of long-range diatomic bound states. Physical Review A, 2013, 87, . | 1.0 | 10 |
| 85 | Quantum-dynamical Modeling of the Rydberg to Valence Excited-State Internal Conversion in Cyclobutanone and Cyclopentanone. EPJ Web of Conferences, 2013, 41, 02033. | 0.1 | 0 |
| 86 | Symmetry, vibrational energy redistribution and vibronic coupling: The internal conversion processes of cycloketones. Journal of Chemical Physics, 2012, 137, 22A522. | 1.2 | 17 |
| 87 | A comparison of density functional theory and coupled cluster methods for the calculation of electric dipole polarizability gradients of methane. AIP Conference Proceedings, 2012, , . | 0.3 | 13 |
| 88 | Fully relativistic coupled cluster and DFT study of electric field gradients at Hg in 199Hg compounds. Physical Chemistry Chemical Physics, 2012, 14, 2651. | 1.3 | 31 |
| 89 | On the discrepancy between theory and experiment for the F-F spin-spin coupling constant of difluoroethyne. Physical Chemistry Chemical Physics, 2012, 14, 16440. | 1.3 | 19 |
| 90 | Electric field gradients in Hg compounds: Molecular orbital (MO) analysis and comparison of 4-component and 2-component (ZORA) methods. Physical Chemistry Chemical Physics, 2012, 14, 16070. | 1.3 | 13 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 91 | Analysis of the interactions between difluoroacetylene and one or two hydrogen fluoride molecules based on calculated spin-spin coupling constants. Computational and Theoretical Chemistry, 2012, 998, 98-105. | 1.1 | 14 |
| 92 | Improving the calculation of electron paramagnetic resonance hyperfine coupling tensors for d-block metals. Physical Chemistry Chemical Physics, 2012, 14, 10669. | 1.3 | 31 |
| 93 | Nuclear magnetic resonance J coupling constant polarizabilities of hydrogen peroxide: A basis set and correlation study. Journal of Computational Chemistry, 2012, 33, 1845-1853. | 1.5 | 13 |
| 94 | On the importance of excited state dynamic response electron correlation in polarizable embedding methods. Journal of Computational Chemistry, 2012, 33, 2012-2022. | 1.5 | 38 |
| 95 | Estimating the carbonyl anharmonic vibrational frequency from affordable harmonic frequency calculations. Journal of Molecular Modeling, 2012, 18, 2471-2478. | 0.8 | 10 |
| 96 | Theoretical study of the triplet excited state of PtPOP and the exciplexes M-PtPOP (M=Tl, Ag) in solution and comparison with ultrafast X-ray scattering results. Chemical Physics, 2012, 393, 117-122. | 0.9 | 14 |
| 97 | Definitive Benchmark Study of Ring Current Effects on Amide Proton Chemical Shifts. Journal of Chemical Theory and Computation, 2011, 7, 2078-2084. | 2.3 | 16 |
| 98 | An Isogomine Analogue with an Amidine at the Pseudoanomeric Position. Organic Letters, 2011, 13, 2908-2911. | 2.4 | 15 |
| 99 | Optimized Basis Sets for Calculation of Electron Paramagnetic Resonance Hyperfine Coupling Constants: aug-cc-pVTZ-J for the 3d Atoms Sc-Zn. Journal of Chemical Theory and Computation, 2011, 7, 4077-4087. | 2.3 | 78 |
| 100 | Nuclear magnetic resonance shielding constants and chemical shifts in linear 199Hg compounds: A comparison of three relativistic computational methods. Journal of Chemical Physics, 2011, 135, 044306. | 1.2 | 55 |
| 101 | Pople Style Basis Sets for the Calculation of NMR Spin-Spin Coupling Constants: the 6-31G-J and 6-311G-J Basis Sets. Journal of Chemical Theory and Computation, 2011, 7, 4070-4076. | 2.3 | 52 |
| 102 | Mean Excitation Energies for Biomolecules. Advances in Quantum Chemistry, 2011, 62, 215-242. | 0.4 | 18 |
| 103 | Electric field effects on nuclear spin-spin coupling tensors and chiral discrimination via NMR spectroscopy. Theoretical Chemistry Accounts, 2011, 129, 359-366. | 0.5 | 18 |
| 104 | Calculated rotational and vibrational $\langle i \rangle g \langle i \rangle$ factors of LiH X $\langle \sup \rangle 1 \langle /sup \rangle \hat{\Sigma} \langle \sup \rangle + \langle /sup \rangle$ and evaluation of parameters in radial functions from rotational and vibrational rotational spectra. International Journal of Quantum Chemistry, 2011, 111, 736-752. | 1.0 | 4 |
| 105 | David M. Bishop: Esteemed colleague and dear friend. International Journal of Quantum Chemistry, 2011, 111, 723-724. | 1.0 | 0 |
| 106 | From CCSD(T)/aug-cc-pVTZ-J to CCSD(T) complete basis set limit isotropic nuclear magnetic shieldings via affordable DFT/CBS calculations. Magnetic Resonance in Chemistry, 2011, 49, 231-236. | 1.1 | 50 |
| 107 | The coupling constant polarizability and hyperpolarizability of $\langle \sup \rangle 1 \langle /sup \rangle \langle i \rangle J \langle i \rangle$ (NH) in $\langle i \rangle N \langle /i \rangle$ -methylacetamide, and its application for the multipole spin-spin coupling constant polarizability/reaction field approach to solvation. Journal of Computational Chemistry, 2011, 32, 3168-3174. | 1.5 | 4 |
| 108 | Heterobimetallic Nitride Complexes from Terminal Chromium(V) Nitride Complexes: Hyperfine Coupling Increases with Distance. Angewandte Chemie - International Edition, 2011, 50, 4480-4483. | 7.2 | 27 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 109 | Benchmarking SOPPA(CC2) for the calculation of indirect nuclear spin-spin coupling constants: Carbocycles. <i>Chemical Physics</i> , 2011, 381, 35-43. | 0.9 | 31 |
| 110 | Benchmarking the multipole shielding polarizability/reaction field approach to solvation against QM/MM: Applications to the shielding constants of N-methylacetamide. <i>Journal of Chemical Physics</i> , 2011, 134, 044514. | 1.2 | 9 |
| 111 | Comparison of the directional characteristics of swift ion excitation for two small biomolecules: glycine and alanine. <i>European Physical Journal D</i> , 2010, 60, 71-76. | 0.6 | 11 |
| 112 | Structural trends of $^{77}\text{Se}^{13}\text{C}^1\text{H}$ spin-spin coupling constants and conformational behavior of 2-substituted selenophenes. <i>Magnetic Resonance in Chemistry</i> , 2010, 48, 44-52. | 1.1 | 77 |
| 113 | Thermal averaging of the indirect nuclear spin-spin coupling constants of ammonia: The importance of the large amplitude inversion mode. <i>Journal of Chemical Physics</i> , 2010, 132, 114305. | 1.2 | 33 |
| 114 | Optimized basis sets for the calculation of indirect nuclear spin-spin coupling constants involving the atoms B, Al, Si, P, and Cl. <i>Journal of Chemical Physics</i> , 2010, 133, 054308. | 1.2 | 83 |
| 115 | Communication: Rotational g-factor and spin-rotation constant of CH^+ . <i>Journal of Chemical Physics</i> , 2010, 133, 171101. | 1.2 | 10 |
| 116 | Mean Excitation Energies and Energy Deposition Characteristics of Bio-organic Molecules. <i>Journal of Physical Chemistry B</i> , 2010, 114, 633-637. | 1.2 | 16 |
| 117 | Mean Excitation Energies and Their Directional Characteristics for Energy Deposition by Swift Ions on the DNA and RNA Nucleobases. <i>Journal of Physical Chemistry C</i> , 2010, 114, 20335-20341. | 1.5 | 14 |
| 118 | Stopping power of molecules for fast ions. <i>Molecular Physics</i> , 2010, 108, 2891-2897. | 0.8 | 8 |
| 119 | Basis set effects on coupled cluster benchmarks of electronically excited states: CC3, CCSDR(3) and CC2. <i>Molecular Physics</i> , 2010, 108, 453-465. | 0.8 | 142 |
| 120 | The Effect of Solvation on the Mean Excitation Energy of Glycine. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 242-245. | 2.1 | 20 |
| 121 | Benchmarking NMR indirect nuclear spin-spin coupling constants: SOPPA, SOPPA(CC2), and SOPPA(CCSD) versus CCSD. <i>Journal of Chemical Physics</i> , 2010, 133, 144106. | 1.2 | 72 |
| 122 | Benchmarks of electronically excited states: Basis set effects on CASPT2 results. <i>Journal of Chemical Physics</i> , 2010, 133, 174318. | 1.2 | 201 |
| 123 | On the relation between the non-adiabatic vibrational reduced mass and the electric dipole moment gradient of a diatomic molecule. <i>Theoretical Chemistry Accounts</i> , 2009, 122, 137-143. | 0.5 | 5 |
| 124 | Partial charges as reactivity descriptors for nitrido complexes. <i>Computational and Theoretical Chemistry</i> , 2009, 913, 1-7. | 1.5 | 15 |
| 125 | Benchmarking Second Order Methods for the Calculation of Vertical Electronic Excitation Energies: Valence and Rydberg States in Polycyclic Aromatic Hydrocarbons. <i>Journal of Physical Chemistry A</i> , 2009, 113, 11995-12012. | 1.1 | 51 |
| 126 | Benchmarks for Electronically Excited States: A Comparison of Noniterative and Iterative Triples Corrections in Linear Response Coupled Cluster Methods: CCSDR(3) versus CC3. <i>Journal of Chemical Theory and Computation</i> , 2009, 5, 555-564. | 2.3 | 115 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 127 | Prediction of spin-spin coupling constants in solution based on combined density functional theory/molecular mechanics. <i>Journal of Chemical Physics</i> , 2009, 130, 134508. | 1.2 | 48 |
| 128 | Analysis of isotope effects in NMR one-bond indirect nuclear spin-spin coupling constants in terms of localized molecular orbitals. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 3987. | 1.3 | 17 |
| 129 | The Anomalous Deuterium Isotope Effect in the NMR Spectrum of Methane: An Analysis in Localized Molecular Orbitals. <i>ChemPhysChem</i> , 2008, 9, 1259-1261. | 1.0 | 15 |
| 130 | On the aromaticity of tetrathiafulvalene cations. <i>Chemical Physics Letters</i> , 2008, 453, 136-139. | 1.2 | 25 |
| 131 | On the Accuracy of Density Functional Theory to Predict Shifts in Nuclear Magnetic Resonance Shielding Constants due to Hydrogen Bonding. <i>Journal of Chemical Theory and Computation</i> , 2008, 4, 267-277. | 2.3 | 51 |
| 132 | A Comparison of Møller-Plesset and Coupled Cluster Linear Response Theory Methods for the Calculation of Dipole Oscillator Strength Sum Rules and C6 Dispersion Coefficients. <i>Collection of Czechoslovak Chemical Communications</i> , 2008, 73, 1415-1436. | 1.0 | 10 |
| 133 | Benchmarks for electronically excited states: Time-dependent density functional theory and density functional theory based multireference configuration interaction. <i>Journal of Chemical Physics</i> , 2008, 129, 104103. | 1.2 | 478 |
| 134 | Benchmarks for electronically excited states: CASPT2, CC2, CCSD, and CC3. <i>Journal of Chemical Physics</i> , 2008, 128, 134110. | 1.2 | 833 |
| 135 | Amino Acid Mean Excitation Energies and Directional Dependencies from Core and Bond Calculations. , 2008, , . | | 5 |
| 136 | Atomic partition of the optical rotatory power of methylhydroperoxide. <i>Journal of Chemical Physics</i> , 2008, 128, 064318. | 1.2 | 10 |
| 137 | Calculations of Polarizabilities and Their Gradients for Electron Energy-Loss Spectroscopy. <i>Collection of Czechoslovak Chemical Communications</i> , 2008, 73, 1509-1524. | 1.0 | 5 |
| 138 | Gauge invariant calculations of nuclear magnetic shielding constants using the continuous transformation of the origin of the current density approach. II. Density functional and coupled cluster theory. <i>Journal of Chemical Physics</i> , 2007, 126, 154111. | 1.2 | 34 |
| 139 | The Rotational g Factor of Diatomic Molecules in State $1^1\Sigma^+ + 0^+$. <i>Advances in Chemical Physics</i> , 2007, , 475-536. | 0.3 | 15 |
| 140 | On the Angular Dependence of the Vicinal Fluorine-Fluorine Coupling Constant in 1,2-Difluoroethane: Deviation from a Karplus-like Shape. <i>Journal of Chemical Theory and Computation</i> , 2006, 2, 1019-1027. | 2.3 | 28 |
| 141 | Directional Dependence of the Mean Excitation Energy and Spectral Moments of the Dipole Oscillator Strength Distribution of Glycine and Its Zwitterion. <i>Journal of Physical Chemistry A</i> , 2006, 110, 8811-8817. | 1.1 | 26 |
| 142 | Two-photon absorption cross sections: An investigation of the accuracy of calculated absolute and relative values. <i>Journal of Chemical Physics</i> , 2006, 124, 114108. | 1.2 | 23 |
| 143 | Quantum-Chemical Calculations of Radial Functions for Rotational and Vibrational g Factors, Electric Dipolar Moment and Adiabatic Corrections to the Potential Energy for Analysis of Spectra of HeH ⁺ . <i>Advances in Quantum Chemistry</i> , 2005, , 319-334. | 0.4 | 17 |
| 144 | On the Usage of Locally Dense Basis Sets in the Calculation of NMR Indirect Nuclear Spin-Spin Coupling Constants: Vicinal Fluorine-Fluorine Couplings. <i>Advances in Quantum Chemistry</i> , 2005, , 161-183. | 0.4 | 65 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 145 | Analysis of Pure Rotational and Vibration-rotational Spectra of NaCl X1 ⁺ and Quantum-chemical Calculation of Related Molecular Properties. <i>Journal of the Chinese Chemical Society</i> , 2005, 52, 631-639. | 0.8 | 4 |
| 146 | Calculations of Dipole and Quadrupole Polarizability Radial Functions for LiH and HF: A Comparison of Different Linear Response Methods. <i>Advances in Quantum Chemistry</i> , 2005, 48, 185-208. | 0.4 | 15 |
| 147 | The Rotational g Tensor of HF, H ₂ O, NH ₃ , and CH ₄ : A Comparison of Correlated Ab Initio Methods. <i>Advances in Quantum Chemistry</i> , 2005, 48, 469-490. | 0.4 | 5 |
| 148 | The vibrational g-factor of dihydrogen from theoretical calculation and analysis of vibration-rotational spectra. <i>Physical Chemistry Chemical Physics</i> , 2005, 7, 1747. | 1.3 | 27 |
| 149 | Interaction Energies and NMR Indirect Nuclear Spin-Spin Coupling Constants in Linear HCN and HNC Complexes. <i>Journal of Physical Chemistry A</i> , 2005, 109, 6555-6564. | 1.1 | 52 |
| 150 | First principle calculations of ¹¹³ Cd chemical shifts for proteins and model systems. <i>Journal of Biological Inorganic Chemistry</i> , 2004, 9, 591-599. | 1.1 | 35 |
| 151 | Non-empirical calculations of NMR indirect carbon-carbon coupling constants. Part 8 Monocycloalkanes. <i>Magnetic Resonance in Chemistry</i> , 2004, 42, 671-686. | 1.1 | 50 |
| 152 | Large Long-Range F-F Indirect Spin-Spin Coupling Constants. Prediction of Measurable F-F Couplings over a Few Nanometers. <i>Journal of Physical Chemistry A</i> , 2004, 108, 5393-5398. | 1.1 | 49 |
| 153 | Substituent Effects on Scalar ² J(¹⁹ F, ¹⁹ F) and ³ J(¹⁹ F, ¹⁹ F) NMR Couplings: A Comparison of SOPPA and DFT Methods. <i>Journal of Physical Chemistry A</i> , 2003, 107, 4748-4754. | 1.1 | 103 |
| 154 | Correlated and gauge invariant calculations of nuclear magnetic shielding constants using the continuous transformation of the origin of the current density approach. <i>Journal of Chemical Physics</i> , 2003, 118, 6830-6845. | 1.2 | 46 |
| 155 | Response theory in the multipole reaction field model for equilibrium and nonequilibrium solvation: Exact theory and the second order polarization propagator approximation. <i>Journal of Chemical Physics</i> , 2003, 119, 3849-3870. | 1.2 | 15 |
| 156 | Special Issue on Nuclear Magnetic Resonance Spin-Spin Coupling Constants Calculations and Measurements. <i>International Journal of Molecular Sciences</i> , 2003, 4, 62-63. | 1.8 | 1 |
| 157 | The Effect of Substituents on Indirect Nuclear Spin-Spin Coupling Constants: Methan- and Ethanamine, Methanal- and Ethanaloxime. <i>International Journal of Molecular Sciences</i> , 2003, 4, 231-248. | 1.8 | 24 |
| 158 | Electric field gradients of water: A systematic investigation of basis set, electron correlation, and rovibrational effects. <i>Journal of Chemical Physics</i> , 2002, 116, 1424-1434. | 1.2 | 20 |
| 159 | Non-empirical calculations of NMR indirect carbon-carbon coupling constants: 1. Three-membered rings. <i>Magnetic Resonance in Chemistry</i> , 2002, 40, 187-194. | 1.1 | 69 |
| 160 | Infrared spectra of CO in absorption and evaluation of radial functions for potential energy and electric dipolar moment. <i>Theoretical Chemistry Accounts</i> , 2002, 108, 85-97. | 0.5 | 42 |
| 161 | The effect of lone pairs and electronegativity on the indirect nuclear spin-spin coupling constants in CH ₂ X (X=CH ₂ , NH, O, S): Ab initio calculations using optimized contracted basis sets. <i>Journal of Chemical Physics</i> , 2001, 115, 1324-1334. | 1.2 | 252 |
| 162 | A multipole second order Møller-Plesset solvent reaction field method. <i>Journal of Chemical Physics</i> , 2001, 114, 7753-7760. | 1.2 | 11 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 163 | Theoretical Investigation of Steric and Electronic Effects in Coenzyme B12 Models. <i>Organometallics</i> , 2001, 20, 550-556. | 1.1 | 58 |
| 164 | Ab initio calculations on 2-imidazolyl-2-thiazolyl azo compounds – an investigation of potential near-infrared absorbing structures. <i>Chemical Physics Letters</i> , 2001, 343, 171-177. | 1.2 | 12 |
| 165 | Relativistic calculations of the rotational g factor of the hydrogen halides and noble gas hydride cations. <i>Journal of Chemical Physics</i> , 2001, 114, 84. | 1.2 | 20 |
| 166 | Nuclear spin-spin coupling in silane and its isotopomers: Ab initio calculation and experimental investigation. <i>Journal of Chemical Physics</i> , 2001, 115, 5994-6006. | 1.2 | 70 |
| 167 | Five-membered rings as diazo components in optical data storage devices: an ab initio investigation of the lowest singlet excitation energies. <i>Chemical Physics Letters</i> , 2000, 325, 115-119. | 1.2 | 57 |
| 168 | Nuclear spin-spin coupling in the acetylene isotopomers calculated from ab initio correlated surfaces for 1J(C, α SH), 1J(C, α SC), 2J(C, α SH), and 3J(H, α SH). <i>Journal of Chemical Physics</i> , 2000, 112, 3735-3746. | 1.2 | 98 |
| 169 | Nuclear magnetic shielding in the acetylene isotopomers calculated from correlated shielding surfaces. <i>Journal of Chemical Physics</i> , 2000, 112, 736-746. | 1.2 | 51 |
| 170 | Atomic integral driven second order polarization propagator calculations of the excitation spectra of naphthalene and anthracene. <i>Journal of Chemical Physics</i> , 2000, 112, 4173-4185. | 1.2 | 131 |
| 171 | Unexpected differential sensitivity of nuclear spin-spin-coupling constants to bond stretching in BH ₄ ⁻ , NH ₄ ⁺ , and SiH ₄ . <i>Journal of Chemical Physics</i> , 2000, 113, 3121-3129. | 1.2 | 78 |
| 172 | The use of locally dense basis sets in the calculation of indirect nuclear spin-spin coupling constants: The vicinal coupling constants in H ₃ C-CH ₂ X (X=H, F, Cl, Br, I). <i>Journal of Chemical Physics</i> , 2000, 112, 6201-6208. | 1.2 | 86 |
| 173 | The computation of Karplus equation coefficients and their components using self-consistent field and second-order polarization propagator methods. <i>Molecular Physics</i> , 2000, 98, 1981-1990. | 0.8 | 28 |
| 174 | Ab Initio Calculation of the Electronic Spectrum of Azobenzene Dyes and Its Impact on the Design of Optical Data Storage Materials. <i>Journal of the American Chemical Society</i> , 2000, 122, 3482-3487. | 6.6 | 114 |
| 175 | Calculations of the indirect nuclear spin-spin coupling constants of PbH ₄ . <i>Theoretical Chemistry Accounts</i> , 1999, 103, 146-153. | 0.5 | 53 |
| 176 | The Bethe Sum Rule and Basis Set Selection in the Calculation of Generalized Oscillator Strengths. <i>Advances in Quantum Chemistry</i> , 1999, , 175-192. | 0.4 | 8 |
| 177 | Calculated nuclear shielding surfaces in the water molecule; prediction and analysis of $\tilde{\chi}_f(O)$, $\tilde{\chi}_f(H)$ and $\tilde{\chi}_f(D)$ in water isotopomers. <i>Molecular Physics</i> , 1999, 96, 1595-1607. | 0.8 | 30 |
| 178 | Calculated nuclear shielding surfaces in the water molecule; prediction and analysis of $\sigma(O)$, $\sigma(H)$ and $\sigma(D)$ in water isotopomers. <i>Molecular Physics</i> , 1999, 96, 1595-1607. | 0.8 | 7 |
| 179 | A second-order doubles correction to excitation energies in the random-phase approximation. <i>Chemical Physics Letters</i> , 1998, 284, 47-55. | 1.2 | 39 |
| 180 | A relation between the rotational g-factor and the electric dipole moment of a diatomic molecule. <i>Chemical Physics Letters</i> , 1998, 297, 475-483. | 1.2 | 20 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 181 | Correlated calculations of indirect nuclear spin-spin coupling constants using second-order polarization propagator approximations: SOPPA and SOPPA(CCSD). <i>Theoretical Chemistry Accounts</i> , 1998, 100, 275-284. | 0.5 | 287 |
| 182 | The vibrational and temperature dependence of the indirect nuclear spin-spin coupling constants of the oxonium (H_3O^+) and hydroxyl (OH^\bullet) ions. <i>Chemical Physics</i> , 1998, 238, 385-399. | 0.9 | 49 |
| 183 | Correlated, Static and Dynamic Polarizabilities of Small Molecules. Comparison of Four "Black Box" Methods. <i>Journal of Physical Chemistry A</i> , 1998, 102, 5269-5274. | 1.1 | 64 |
| 184 | Calculated spin-spin coupling surfaces in the water molecule; prediction and analysis of $J(\text{O}, \text{H})$, $J(\text{O}, \text{D})$ and $J(\text{H}, \text{D})$ in water isotopomers. <i>Molecular Physics</i> , 1998, 94, 851-862. | 0.8 | 88 |
| 185 | Second-order polarization propagator approximation with coupled-cluster singles and doubles amplitudes - SOPPA(CCSD): the polarizability and hyperpolarizability of. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1997, 30, 3773-3780. | 0.6 | 147 |
| 186 | Calculation, with the inclusion of vibrational corrections, of the dc-electric-field-induced second-harmonic-generation hyperpolarizability of methane. <i>Journal of Chemical Physics</i> , 1997, 107, 8502-8509. | 1.2 | 46 |
| 187 | The vibrational dependence of the hydrogen and oxygen nuclear magnetic shielding constants in OH^\bullet and $\text{OH}^\bullet \cdot \text{H}_2\text{O}$. <i>Chemical Physics</i> , 1997, 214, 91-101. | 0.9 | 19 |
| 188 | Theoretical estimates of the rotational g-factor, magnetizability and electric dipole moment of GaH. <i>Chemical Physics Letters</i> , 1996, 260, 271-279. | 1.2 | 30 |
| 189 | Calculations of magnetic hyperfine structure constants for the low-lying rovibrational levels of LiH, HF, CH ₃ ⁺ , and BH. <i>Chemical Physics</i> , 1995, 201, 405-425. | 0.9 | 24 |
| 190 | Calculated molecular mean excitation energies for some small molecules. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1995, 100, 458-463. | 0.6 | 31 |
| 191 | Experimental and Theoretical Estimates of the Rotational g Factor of AlH in the Electronic Ground State X ¹ Σ ⁺ . <i>The Journal of Physical Chemistry</i> , 1994, 98, 8617-8621. | 2.9 | 44 |
| 192 | Correlated dipole oscillator sum rules. <i>Journal of Chemical Physics</i> , 1994, 100, 8969-8975. | 1.2 | 30 |
| 193 | The vibrational and temperature dependence of the magnetic properties of the oxonium ion (H_3O^+). <i>Chemical Physics</i> , 1994, 184, 1-11. | 0.9 | 26 |
| 194 | Correlated polarization propagator calculations of static polarizabilities. <i>International Journal of Quantum Chemistry</i> , 1994, 50, 317-332. | 1.0 | 40 |
| 195 | Correlated and gauge origin independent calculations of magnetic properties. <i>Theoretica Chimica Acta</i> , 1994, 88, 351-361. | 0.9 | 47 |
| 196 | Correlated dipole polarizabilities and dipole moments of the halides HX and CH ₃ X (X=F, Cl and Br). <i>Theoretica Chimica Acta</i> , 1994, 89, 323-333. | 0.9 | 26 |
| 197 | Evaluation of adiabatic and nonadiabatic effects from vibration-rotational spectra of LiH X ¹ Σ ⁺ . <i>Chemical Physics Letters</i> , 1994, 228, 183-190. | 1.2 | 33 |
| 198 | Correlated and gauge origin independent calculations of magnetic properties. <i>Molecular Physics</i> , 1994, 81, 87-118. | 0.8 | 59 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 199 | Calculation of the Verdet constants for H ₂ , N ₂ , CO, and FH. Journal of Chemical Physics, 1993, 98, 487-495. | 1.2 | 40 |
| 200 | Directional characteristics of the moments of the dipole-oscillator-strength distribution of molecules:H ₂ andH ₂ O. Physical Review A, 1993, 47, 1123-1129. | 1.0 | 21 |
| 201 | Paramagnetism of closed shell diatomic hydrides with six valence electrons. Journal of Chemical Physics, 1993, 98, 9748-9757. | 1.2 | 50 |
| 202 | A sum-over-states formulation of the diamagnetic contribution to the indirect nuclear spin-spin coupling constant. Journal of Chemical Physics, 1993, 98, 9220-9221. | 1.2 | 29 |
| 203 | Correlated calculations of the rotationalg-tensor and origin independent magnetizability surface of BH. Molecular Physics, 1992, 76, 445-465. | 0.8 | 44 |
| 204 | The magnetizability and g-factor surfaces of ammonia. Chemical Physics, 1991, 153, 189-200. | 0.9 | 35 |
| 205 | Second-order polarization propagator calculations of dynamic dipole polarizabilities and C6 coefficients. International Journal of Quantum Chemistry, 1991, 39, 667-679. | 1.0 | 39 |
| 206 | Magnesium(II)-ATP Complexes in Ethylmethylimidazolium Acetate Solutions Characterized by ³¹ Mg ² α-Radiation-Detected NMR Spectroscopy. Angewandte Chemie - International Edition, 0, , . | 7.2 | 1 |
| 207 | Magnesium(II)-ATP Complexes in Ethylmethylimidazolium Acetate Solutions Characterized by ³¹ Mg ² α-Radiation-Detected NMR Spectroscopy. Angewandte Chemie, 0, , . | 1.6 | 1 |