

# J Raul Alvarez-Idaboy

## List of Publications by Year in descending order

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134  
papers

6,092  
citations

61984

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79698

73  
g-index

138  
all docs

138  
docs citations

138  
times ranked

3996  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Chemical repair of damaged leucine and tryptophane by thiophenols at close to diffusion-controlled rates: Mechanisms and kinetics. <i>Journal of Computational Chemistry</i> , 2022, , .                          | 3.3 | 4         |
| 2  | Free radical scavenging activity of newly designed sesamol derivatives. <i>New Journal of Chemistry</i> , 2021, 45, 11960-11967.  | 2.8 | 5         |
| 3  | Chalcogen effects on the primary antioxidant activity of chrysin and quercetin. <i>New Journal of Chemistry</i> , 2020, 44, 9073-9082.  | 2.8 | 24        |
| 4  | Insights into the Mechanism of Hydroxyl Radical Mediated Oxidations of 2-Aminopurine: A Computational and Sonochemical Product Analysis Study. <i>Journal of Physical Chemistry B</i> , 2020, 124, 6245-6256.     | 2.6 | 8         |
| 5  | Chemical repair mechanisms of damaged tyrosyl and tryptophanyl residues in proteins by the superoxide radical anion. <i>New Journal of Chemistry</i> , 2020, 44, 2505-2513.                                       | 2.8 | 0         |
| 6  | The Antioxidant Capability of Higenamine: Insights from Theory. <i>Antioxidants</i> , 2020, 9, 358.   | 5.1 | 16        |
| 7  | Computationally Designed Sesamol Derivatives Proposed as Potent Antioxidants. <i>ACS Omega</i> , 2020, 5, 9566-9575.  | 3.5 | 21        |
| 8  | Computational strategies for predicting free radical scavengers' protection against oxidative stress: Where are we and what might follow?. <i>International Journal of Quantum Chemistry</i> , 2019, 119, e25665. | 2.0 | 178       |
| 9  | Modelling the repair of carbon-centred protein radicals by the antioxidants glutathione and Trolox. <i>New Journal of Chemistry</i> , 2019, 43, 2085-2097.  | 2.8 | 7         |
| 10 | Thiophenols, Promising Scavengers of Peroxyl Radicals: Mechanisms and kinetics. <i>Journal of Computational Chemistry</i> , 2019, 40, 2103-2110.  | 3.3 | 43        |
| 11 | Reinvestigation of Acetophenones Oxidation by Performic Acid in Formic Acid. <i>Journal of Physical Chemistry A</i> , 2019, 123, 1968-1972.   | 2.5 | 2         |
| 12 | Melatonin and its metabolites as chemical agents capable of directly repairing oxidized DNA. <i>Journal of Pineal Research</i> , 2019, 66, e12539.  | 7.4 | 37        |
| 13 | Chemical Insights into the Antioxidant Mechanisms of Alkylseleno and Alkyltelluro Phenols: Periodic Relatives Behaving Differently. <i>Chemistry - A European Journal</i> , 2018, 24, 8686-8691.                  | 3.3 | 15        |
| 14 | Theoretical and experimental study demonstrates kinetic control in chalcone-flavanone transformation of naphthalene derivatives. <i>Journal of Molecular Structure</i> , 2018, 1157, 631-637.                     | 3.6 | 2         |
| 15 | Radical scavenging activity of ascorbic acid analogs: kinetics and mechanisms. <i>Theoretical Chemistry Accounts</i> , 2018, 137, 1.  | 1.4 | 12        |
| 16 | Role of purines on the copper-catalyzed oxidative damage in biological systems: Protection versus promotion. <i>International Journal of Quantum Chemistry</i> , 2018, 118, e25527.                               | 2.0 | 11        |
| 17 | Estimation of empirically fitted parameters for calculating pK <sub>a</sub> values of thiols in a fast and reliable way. <i>Theoretical Chemistry Accounts</i> , 2018, 137, 1.                                    | 1.4 | 16        |
| 18 | The other side of the superoxide radical anion: its ability to chemically repair DNA oxidized sites. <i>Chemical Communications</i> , 2018, 54, 13710-13713.  | 4.1 | 11        |

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|----|--|-----|-----------|
| 19 | Theoretical Study of the Reactivity and Selectivity of Various Free Radicals with Cysteine Residues. ACS Omega, 2018, 3, 16519-16528.  | 3.5 | 5         |
| 20 | Comprehensive Investigation of the Antioxidant and Pro-oxidant Effects of Phenolic Compounds: A Double-Edged Sword in the Context of Oxidative Stress?. Journal of Physical Chemistry B, 2018, 122, 6198-6214.                                 | 2.6 | 71        |
| 21 | Formation mechanism of glyoxal-DNA adduct, a DNA cross-link precursor. International Journal of Biological Macromolecules, 2017, 98, 664-675.  | 7.5 | 8         |
| 22 | Non-covalent $\pi$ - $\pi$ stacking interactions turn off non-adiabatic effects in proton-coupled electron transfer reactions. Physical Chemistry Chemical Physics, 2017, 19, 6969-6972.   | 2.8 | 20        |
| 23 | Dual antioxidant/pro-oxidant behavior of the tryptophan metabolite 3-hydroxyanthranilic acid: a theoretical investigation of reaction mechanisms and kinetics. New Journal of Chemistry, 2017, 41, 3829-3845.                                  | 2.8 | 33        |
| 24 | The role of acid-base equilibria in formal hydrogen transfer reactions: tryptophan radical repair by uric acid as a paradigmatic case. Physical Chemistry Chemical Physics, 2017, 19, 15296-15309.   | 2.8 | 24        |
| 25 | Radical-trapping and preventive antioxidant effects of 2-hydroxymelatonin and 4-hydroxymelatonin: Contributions to the melatonin protection against oxidative stress. Biochimica Et Biophysica Acta - General Subjects, 2017, 1861, 2206-2217. | 2.4 | 21        |
| 26 | Rate Constants and Branching Ratios in the Oxidation of Aliphatic Aldehydes by OH Radicals under Atmospheric Conditions. Journal of the Mexican Chemical Society, 2017, 56, .  | 0.6 | 2         |
| 27 | Deprotonation routes of anthocyanidins in aqueous solution, $pK_a$ values, and speciation under physiological conditions. RSC Advances, 2016, 6, 53421-53429.  | 3.6 | 22        |
| 28 | Primary antioxidant and metal-binding effects of tiopronin: A theoretical investigation of its action mechanism. Computational and Theoretical Chemistry, 2016, 1077, 48-57.   | 2.5 | 17        |
| 29 | Tryptophan versus nitric oxide, nitrogen dioxide and carbonate radicals: differences in reactivity and implications for oxidative damage to proteins. Theoretical Chemistry Accounts, 2016, 135, 1.  | 1.4 | 7         |
| 30 | Contrasting reactions of hydrated electron and formate radical with 2-thio analogues of cytosine and uracil. Physical Chemistry Chemical Physics, 2016, 18, 28781-28790.   | 2.8 | 9         |
| 31 | Chemical repair of protein carbon-centred radicals: long-distance dynamic factors. Canadian Journal of Chemistry, 2016, 94, 1119-1126.   | 1.1 | 6         |
| 32 | Empirically Fitted Parameters for Calculating $pK_a$ Values with Small Deviations from Experiments Using a Simple Computational Strategy. Journal of Chemical Information and Modeling, 2016, 56, 1714-1724.                                   | 5.4 | 97        |
| 33 | Theoretical study of copper complexes with lipoic and dihydrolipoic acids. RSC Advances, 2016, 6, 107924-107932.   | 3.6 | 8         |
| 34 | Food Antioxidants: Chemical Insights at the Molecular Level. Annual Review of Food Science and Technology, 2016, 7, 335-352.   | 9.9 | 294       |
| 35 | Coumarin-Chalcone Hybrids as Peroxyl Radical Scavengers: Kinetics and Mechanisms. Journal of Chemical Information and Modeling, 2016, 56, 662-670.   | 5.4 | 41        |
| 36 | Hydrogen Abstraction Reactions from Phenolic Compounds by Peroxyl Radicals: Multireference Character and Density Functional Theory Rate Constants. Journal of Physical Chemistry A, 2016, 120, 4634-4642.                                      | 2.5 | 55        |

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|----|--|-----|-----------|
| 37 | Assessing the Protective Activity of a Recently Discovered Phenolic Compound against Oxidative Stress Using Computational Chemistry. <i>Journal of Chemical Information and Modeling</i> , 2015, 55, 2552-2561.                  | 5.4 | 23        |
| 38 | Site reactivity in the free radicals induced damage to leucine residues: a theoretical study. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 4970-4976.  | 2.8 | 18        |
| 39 | Free-radical scavenging by tryptophan and its metabolites through electron transfer based processes. <i>Journal of Molecular Modeling</i> , 2015, 21, 213.   | 1.8 | 47        |
| 40 | Modelling the chemical repair of protein carbon-centered radicals formed via oxidative damage with dihydrolipoic acid. <i>RSC Advances</i> , 2015, 5, 96714-96719.   | 3.6 | 14        |
| 41 | A protonâ€“electron sequential transfer mechanism: theoretical evidence about its biological relevance. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 28525-28528.  | 2.8 | 26        |
| 42 | Kinetics of radicalâ€“molecule reactions in aqueous solution: A benchmark study of the performance of density functional methods. <i>Journal of Computational Chemistry</i> , 2014, 35, 2019-2026.                               | 3.3 | 211       |
| 43 | Antioxidant activity of fraxetin and its regeneration in aqueous media. A density functional theory study. <i>RSC Advances</i> , 2014, 4, 52920-52932.   | 3.6 | 33        |
| 44 | Theoretical study on the peroxy radicals scavenging activity of esculetin and its regeneration in aqueous solution. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 1197-1207.  | 2.8 | 31        |
| 45 | Dihydroxybenzoic acids as free radical scavengers: mechanisms, kinetics, and trends in activity. <i>New Journal of Chemistry</i> , 2014, 38, 2639.   | 2.8 | 37        |
| 46 | Tryptophan: antioxidant or target of oxidative stress? A quantum chemistry elucidation. <i>RSC Advances</i> , 2014, 4, 56128-56131.  | 3.6 | 21        |
| 47 | An experimental and theoretical study of the kinetics and mechanism of hydroxyl radical reaction with 2-aminopyrimidine. <i>RSC Advances</i> , 2014, 4, 14157.   | 3.6 | 17        |
| 48 | Antioxidant activity of selected natural polyphenolic compounds from soybean via peroxy radical scavenging. <i>RSC Advances</i> , 2014, 4, 38918-38930.  | 3.6 | 30        |
| 49 | Lipoic Acid and Dihydrolipoic Acid. A Comprehensive Theoretical Study of Their Antioxidant Activity Supported by Available Experimental Kinetic Data. <i>Journal of Chemical Information and Modeling</i> , 2014, 54, 1642-1652. | 5.4 | 37        |
| 50 | A theoretical and experimental evaluation of imidazolium-based ionic liquids for atmospheric mercury capture. <i>Journal of Molecular Modeling</i> , 2014, 20, 2186.   | 1.8 | 6         |
| 51 | Theoretical study of the complex reaction of O(3P) with trans-2-butene. <i>Theoretical Chemistry Accounts</i> , 2013, 132, 1.  | 1.4 | 4         |
| 52 | Antioxidant activity of propyl gallate in aqueous and lipid media: a theoretical study. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 13137.  | 2.8 | 56        |
| 53 | A computational methodology for accurate predictions of rate constants in solution: Application to the assessment of primary antioxidant activity. <i>Journal of Computational Chemistry</i> , 2013, 34, 2430-2445.              | 3.3 | 289       |
| 54 | Piceatannol, a better peroxy radical scavenger than resveratrol. <i>RSC Advances</i> , 2013, 3, 20209.   | 3.6 | 85        |

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|----|--|-----|-----------|
| 55 | Acid-Catalyzed Nucleophilic Additions to Carbonyl Groups: Is the Accepted Mechanism the Rule or an Exception?. <i>Journal of Organic Chemistry</i> , 2013, 78, 2327-2335.  | 3.2 | 16        |
| 56 | On the Chemical Repair of DNA Radicals by Glutathione: Hydrogen vs Electron Transfer. <i>Journal of Physical Chemistry B</i> , 2012, 116, 9316-9325.   | 2.6 | 85        |
| 57 | On the evolution of one-electron-oxidized deoxyguanosine in damaged DNA under physiological conditions: a DFT and ONIOM study on proton transfer and equilibrium. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 12476.  | 2.8 | 39        |
| 58 | Influence of the methylation degree on the rate constants of the $\text{C}^{\alpha}\text{OH}$ addition to alkenes and its temperature dependence. <i>International Journal of Quantum Chemistry</i> , 2012, 112, 3479-3483.      | 2.0 | 8         |
| 59 | Mechanisms and rate constants in the atmospheric oxidation of saturated esters by hydroxyl radicals: A theoretical study. <i>International Journal of Quantum Chemistry</i> , 2012, 112, 3508-3515.                              | 2.0 | 16        |
| 60 | Tropospheric degradation of ethylene glycol monovinyl and divinyl ethers: A mechanistic and kinetic study. <i>International Journal of Quantum Chemistry</i> , 2012, 112, 3525-3534.   | 2.0 | 12        |
| 61 | Antioxidant Activity of <i>trans</i> -Resveratrol toward Hydroxyl and Hydroperoxyl Radicals: A Quantum Chemical and Computational Kinetics Study. <i>Journal of Organic Chemistry</i> , 2012, 77, 3868-3877.                     | 3.2 | 226       |
| 62 | On the peroxy scavenging activity of hydroxycinnamic acid derivatives: mechanisms, kinetics, and importance of the acid-base equilibrium. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 12534.                          | 2.8 | 68        |
| 63 | Molecular Description of Indigo Oxidation Mechanisms Initiated by OH and OOH Radicals. <i>Journal of Physical Chemistry A</i> , 2012, 116, 3643-3651.  | 2.5 | 17        |
| 64 | Influence of the Environment on the Protective Effects of Guaiacol Derivatives against Oxidative Stress: Mechanisms, Kinetics, and Relative Antioxidant Activity. <i>Journal of Physical Chemistry B</i> , 2012, 116, 7129-7137. | 2.6 | 33        |
| 65 | A quantum chemical study on the free radical scavenging activity of tyrosol and hydroxytyrosol. <i>Theoretical Chemistry Accounts</i> , 2012, 131, 1.  | 1.4 | 38        |
| 66 | Glutathione: mechanism and kinetics of its non-enzymatic defense action against free radicals. <i>RSC Advances</i> , 2011, 1, 1763.  | 3.6 | 136       |
| 67 | Role of Allyl Group in the Hydroxyl and Peroxyl Radical Scavenging Activity of <i>S</i> -Allylcysteine. <i>Journal of Physical Chemistry B</i> , 2011, 115, 13408-13417.   | 2.6 | 32        |
| 68 | Hydrolysis of a Chlorambucil Analogue. A DFT study.. <i>Journal of Physical Chemistry A</i> , 2011, 115, 2359-2366.  | 2.5 | 16        |
| 69 | Physicochemical Insights on the Free Radical Scavenging Activity of Sesamol: Importance of the Acid/Base Equilibrium. <i>Journal of Physical Chemistry B</i> , 2011, 115, 13101-13109.   | 2.6 | 64        |
| 70 | Mechanism and Kinetics of the Water-Assisted Formic Acid + OH Reaction under Tropospheric Conditions. <i>Journal of Physical Chemistry A</i> , 2011, 115, 5138-5146.   | 2.5 | 57        |
| 71 | ROS Initiated Oxidation of Dopamine under Oxidative Stress Conditions in Aqueous and Lipidic Environments. <i>Journal of Physical Chemistry B</i> , 2011, 115, 12234-12246.  | 2.6 | 119       |
| 72 | Mechanism and kinetics studies on the antioxidant activity of sinapinic acid. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 11199.  | 2.8 | 80        |

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|----|---|-----|-----------|
| 73 | Canolol: A Promising Chemical Agent against Oxidative Stress. <i>Journal of Physical Chemistry B</i> , 2011, 115, 8590-8596.  | 2.6 | 77        |
| 74 | On the possible catalytic role of a single water molecule in the acetone+OH gas phase reaction: a theoretical pseudo-second-order kinetics study. <i>Theoretical Chemistry Accounts</i> , 2011, 129, 209-217.                             | 1.4 | 64        |
| 75 | Counterpoise corrected interaction energies are not systematically better than uncorrected ones: comparison with CCSD(T) CBS extrapolated values. <i>Theoretical Chemistry Accounts</i> , 2010, 126, 75-85.                               | 1.4 | 130       |
| 76 | Single water-molecule catalysis in the glyoxal + OH reaction under tropospheric conditions: Fact or fiction? A quantum chemistry and pseudo-second order computational kinetic study. <i>Chemical Physics Letters</i> , 2010, 501, 11-15. | 2.6 | 41        |
| 77 | Mechanism and Branching Ratios of Hydroxy Ethers + $\text{OH}$ Gas phase Reactions: Relevance of H Bond Interactions. <i>Journal of Physical Chemistry A</i> , 2010, 114, 7525-7536.  | 2.5 | 17        |
| 78 | Can a Single Water Molecule Really Catalyze the Acetaldehyde + OH Reaction in Tropospheric Conditions?. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 3112-3115.  | 4.6 | 108       |
| 79 | Computational and experimental study of the interactions between ionic liquids and volatile organic compounds. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 9830.   | 2.8 | 51        |
| 80 | Substituent effects in the Baeyer-Villiger reaction of acetophenones: a theoretical study. <i>Journal of Physical Organic Chemistry</i> , 2009, 22, 643-649.  | 1.9 | 23        |
| 81 | Guanosine + OH Radical Reaction in Aqueous Solution: A Reinterpretation of the UV-vis Data Based on Thermodynamic and Kinetic Calculations. <i>Organic Letters</i> , 2009, 11, 5114-5117.   | 4.6 | 100       |
| 82 | Quantum chemistry and TST study of the mechanisms and branching ratios for the reactions of OH with unsaturated aldehydes. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 7649.   | 2.8 | 88        |
| 83 | OH Radical Gas Phase Reactions with Aliphatic Ethers: A Variational Transition State Theory Study. <i>Journal of Physical Chemistry A</i> , 2009, 113, 13913-13920.   | 2.5 | 103       |
| 84 | The Baeyer-Villiger reaction: solvent effects on reaction mechanisms. <i>Organic and Biomolecular Chemistry</i> , 2009, 7, 3682.  | 2.8 | 70        |
| 85 | Quantum chemistry and TST study of the mechanism and kinetics of the butadiene and isoprene reactions with mercapto radicals. <i>Chemical Physics</i> , 2008, 344, 273-280.   | 1.9 | 12        |
| 86 | Atmospheric Reactions of Oxygenated Volatile Organic Compounds+OH Radicals: Role of Hydrogen-Bonded Intermediates and Transition States. <i>Advances in Quantum Chemistry</i> , 2008, , 245-274.  | 0.8 | 16        |
| 87 | Branching Ratios of Aliphatic Amines + OH Gas-Phase Reactions: A Variational Transition-State Theory Study. <i>Journal of Chemical Theory and Computation</i> , 2008, 4, 322-327.   | 5.3 | 43        |
| 88 | Theoretical Explanation of Nonexponential OH Decay in Reactions with Benzene and Toluene under Pseudo-First-Order Conditions. <i>Journal of Physical Chemistry A</i> , 2008, 112, 7608-7615.  | 2.5 | 57        |
| 89 | Reinvestigating the Role of Multiple Hydrogen Transfers in Baeyer-Villiger Reactions. <i>Journal of Organic Chemistry</i> , 2007, 72, 6580-6583.  | 3.2 | 28        |
| 90 | The mechanism of the Baeyer-Villiger rearrangement: quantum chemistry and TST study supported by experimental kinetic data. <i>Organic and Biomolecular Chemistry</i> , 2007, 5, 3682.  | 2.8 | 106       |

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|-----|---|------|-----------|
| 91  | Non-alkane behavior of cyclopropane and its derivatives: characterization of unconventional hydrogen bond interactions. <i>Theoretical Chemistry Accounts</i> , 2007, 118, 597-606.             | 1.4  | 25        |
| 92  | A New Specific Mechanism for the Acid Catalysis of the Addition Step in the Baeyer-Villiger Rearrangement. <i>Organic Letters</i> , 2006, 8, 1763-1765.   | 4.6  | 92        |
| 93  | Kinetics and mechanism of the $\beta$ -alanine + OH gas phase reaction: A quantum mechanical approach. <i>Physical Chemistry Chemical Physics</i> , 2006, 8, 285-292.                           | 2.8  | 15        |
| 94  | Computational Quantum Chemistry: A Reliable Tool in the Understanding of Gas-Phase Reactions. <i>Journal of Chemical Education</i> , 2006, 83, 481.   | 2.3  | 8         |
| 95  | Theoretical Determination of the Rate Constant for OH Hydrogen Abstraction from Toluene. <i>Journal of Physical Chemistry A</i> , 2006, 110, 10155-10162.                                       | 2.5  | 69        |
| 96  | Isopropylcyclopropane + OH Gas Phase Reaction: A Quantum Chemistry + CVT/SCT Approach. <i>Journal of Physical Chemistry A</i> , 2006, 110, 1917-1924.   | 2.5  | 17        |
| 97  | A new approach to counterpoise correction to BSSE. <i>Journal of Computational Chemistry</i> , 2006, 27, 1203-1210.   | 3.3  | 105       |
| 98  | Quantum chemical and conventional TST calculations of rate constants for the OH+alkane reaction. <i>Chemical Physics</i> , 2005, 310, 213-223.  | 1.9  | 31        |
| 99  | Glycolaldehyde + OH Gas Phase Reaction: A Quantum Chemistry + CVT/SCT Approach. <i>Journal of Physical Chemistry A</i> , 2005, 109, 169-180.  | 2.5  | 65        |
| 100 | A Possible Mechanism for Furan Formation in the Tropospheric Oxidation of Dienes. <i>Environmental Science &amp; Technology</i> , 2005, 39, 8797-8802.  | 10.0 | 22        |
| 101 | Ab initio study of $\beta$ -alanine conformers in gas phase. <i>Arkivoc</i> , 2005, 2005, 7-18.   | 0.5  | 11        |
| 102 | The Baeyer-Villiger reaction of 23-oxosapogenins. <i>Arkivoc</i> , 2005, 2005, 109-126.   | 0.5  | 24        |
| 103 | Mechanism and Kinetics of the Reaction of OH Radicals with Glyoxal and Methylglyoxal: A Quantum Chemistry+CVT/SCT Approach. <i>ChemPhysChem</i> , 2004, 5, 1379-1388.                           | 2.1  | 49        |
| 104 | Quantum mechanical approach to isoleucine+OH gas phase reaction. Mechanism and kinetics. <i>Computational and Theoretical Chemistry</i> , 2004, 676, 97-103.                                    | 1.5  | 13        |
| 105 | A theoretical investigation of the mechanism of the NO <sub>3</sub> addition to alkenes. <i>Computational and Theoretical Chemistry</i> , 2004, 684, 51-59.                                     | 1.5  | 13        |
| 106 | On the role of s-cis conformers in the reaction of dienes with OH radicals. <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 2237-2244.  | 2.8  | 21        |
| 107 | Structure-Reactivity Relationship in Ketones + OH Reactions: A Quantum Mechanical and TST Approach. <i>Journal of Physical Chemistry A</i> , 2004, 108, 2740-2749.                              | 2.5  | 52        |
| 108 | Kinetics and mechanism of the gas-phase OH hydrogen abstraction reaction from methionine: A quantum mechanical approach. <i>International Journal of Chemical Kinetics</i> , 2003, 35, 212-221. | 1.6  | 21        |



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|-----|---|------|-----------|
| 109 | Rate coefficients and mechanism of the gas phase OH hydrogen abstraction reaction from serine: a quantum mechanical approach. <i>Computational and Theoretical Chemistry</i> , 2003, 629, 165-174.                                | 1.5  | 20        |
| 110 | Theoretical study of the initial reaction between OH and isoprene in tropospheric conditions. <i>Physical Chemistry Chemical Physics</i> , 2003, 5, 1392-1399.  | 2.8  | 51        |
| 111 | Rate Coefficient and Mechanism of the Gas Phase OH Hydrogen Abstraction Reaction from Formic Acid: A Quantum Mechanical Approach. <i>Journal of Physical Chemistry A</i> , 2002, 106, 9520-9528.                                  | 2.5  | 71        |
| 112 | Quantum Chemical and Conventional Transition-State Theory Calculations of Rate Constants for the NO <sub>3</sub> + Alkane Reaction. <i>Journal of Physical Chemistry A</i> , 2002, 106, 4645-4650.                                | 2.5  | 48        |
| 113 | Gas phase reactions of C <sub>1</sub> -C <sub>4</sub> alcohols with the OH radical: A quantum mechanical approach. <i>Physical Chemistry Chemical Physics</i> , 2002, 4, 4648-4662.   | 2.8  | 108       |
| 114 | Mechanism and rate coefficients of the gas phase OH hydrogen abstraction reaction from asparagine: a quantum mechanical approach. <i>Computational and Theoretical Chemistry</i> , 2002, 617, 77-86.                              | 1.5  | 32        |
| 115 | Rate Constant Dependence on the Size of Aldehydes in the NO <sub>3</sub> + Aldehydes Reaction. An Explanation via Quantum Chemical Calculations and CTST. <i>Journal of the American Chemical Society</i> , 2001, 123, 8387-8395. | 13.7 | 71        |
| 116 | Evidence of A Possible Cycloaddition Channel in the Ethene + NO <sub>3</sub> Reaction. <i>Journal of Physical Chemistry A</i> , 2001, 105, 9222-9230.   | 2.5  | 9         |
| 117 | A Quantum Chemical and TST Study of the OH Hydrogen-Abstraction Reaction from Substituted Aldehydes: FCHO and ClCHO. <i>Journal of Physical Chemistry A</i> , 2001, 105, 9034-9039.   | 2.5  | 43        |
| 118 | OH hydrogen abstraction reactions from alanine and glycine: A quantum mechanical approach. <i>Journal of Computational Chemistry</i> , 2001, 22, 1138-1153.   | 3.3  | 57        |
| 119 | On the Importance of Prereactive Complexes in Molecule-Radical Reactions: Hydrogen Abstraction from Aldehydes by OH. <i>Journal of the American Chemical Society</i> , 2001, 123, 2018-2024.                                      | 13.7 | 244       |
| 120 | A study of the nucleophilic attack of the beta-lactamic bond of antibiotics in water solution. <i>Computational and Theoretical Chemistry</i> , 2001, 539, 233-243.   | 1.5  | 5         |
| 121 | Reaction mechanism of the acyl-enzyme formation in β-lactam hydrolysis by means of quantum chemical modeling. <i>Computational and Theoretical Chemistry</i> , 2000, 504, 13-28.  | 1.5  | 11        |
| 122 | A Quantum Chemical and Classical Transition State Theory Explanation of Negative Activation Energies in OH Addition To Substituted Ethenes. <i>Journal of the American Chemical Society</i> , 2000, 122, 3715-3720.               | 13.7 | 218       |
| 123 | Mechanism of the OH-propene-O <sub>2</sub> reaction: An ab initio study. <i>International Journal of Chemical Kinetics</i> , 1999, 31, 29-36.   | 1.6  | 49        |
| 124 | Mechanism of the OH-propene-O <sub>2</sub> reaction: An ab initio study. , 1999, 31, 29.  |      | 1         |
| 125 | Formation of 2-hexene by cationic dimerization of propene: an ab initio and density functional theory study. <i>Theoretical Chemistry Accounts</i> , 1997, 97, 277-282.   | 1.4  | 4         |
| 126 | Model Calculations of Matrix Effects on the Conversion of Propene Radical Cations into Allyl Radicals in Halocarbon Matrices.. <i>Acta Chemica Scandinavica</i> , 1997, 51, 242-248.  | 0.7  | 0         |



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|-----|--|-----|-----------|
| 127 | Theoretical Model of Furan and 2-Furancarboxaldehyde. The Molecular Structure and Vibrational Spectra, Including Isotopic Effects. The Journal of Physical Chemistry, 1994, 98, 5607-5613.                   | 2.9 | 20        |
| 128 | Model Calculations of Base-Catalysed 1,3-Proton Transfer Reactions in Indene-like Systems.. Acta Chemica Scandinavica, 1994, 48, 423-427.  | 0.7 | 2         |
| 129 | Theoretical investigation of the ethene-ethene radical cation addition reaction. The Journal of Physical Chemistry, 1993, 97, 12737-12741.   | 2.9 | 16        |
| 130 | Theoretical study of reactions of the 1-butene radical cation in frozen halocarbon matrixes. The Journal of Physical Chemistry, 1993, 97, 12742-12744.   | 2.9 | 5         |
| 131 | Theoretical approach to cationic polymerization of alkenylfurans. II. Ab initio and semiempirical study of relevant steps in the reaction mechanism. Journal of Polymer Science Part A, 1992, 30, 2497-2502. | 2.3 | 0         |
| 132 | Theoretical modelling of the electrophilic substitution mechanism in furan. Computational and Theoretical Chemistry, 1992, 253, 243-259.   | 1.5 | 6         |
| 133 | On the correlation between ionization potentials and bond angles in heterocyclic compounds. Journal of Molecular Structure, 1991, 249, 305-312.  | 3.6 | 9         |
| 134 | Theoretical model of the electrophilic substitution in pentagonal unsaturated heterocycles. Computational and Theoretical Chemistry, 1990, 209, 361-372.   | 1.5 | 6         |