New studies on molecular chirality in the gas phase: ena determination of enantiomeric excess

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Citation Report

#	Article	IF	Citations
1	A Signature of Roaming Dynamics in the Thermal Decomposition of Ethyl Nitrite: Chirped-Pulse Rotational Spectroscopy and Kinetic Modeling. Journal of Physical Chemistry Letters, 2014, 5, 3641-3648.	4.6	28
2	Chirality in Optical Trapping and Optical Binding. Photonics, 2015, 2, 483-497.	2.0	29
3	Enantioselective stable isotope analysis (ESIA) â€" A new concept to evaluate the environmental fate of chiral organic contaminants. Science of the Total Environment, 2015, 514, 459-466.	8.0	25
4	Signatures of material and optical chirality: Origins and measures. Chemical Physics Letters, 2015, 626, 106-110.	2.6	50
5	Enantiomer-specific analysis of multi-component mixtures by correlated electron imagingâ€"ion mass spectrometry. Nature Communications, 2015, 6, 7511.	12.8	64
6	Electromagnetic trapping of chiral molecules: orientational effects of the irradiating beam. Journal of the Optical Society of America B: Optical Physics, 2015, 32, B25.	2.1	15
7	Rotational spectroscopy and three-wave mixing of 4-carvomenthenol: A technical guide to measuring chirality in the microwave regime. Journal of Chemical Physics, 2015, 142, 214201.	3.0	60
8	Photoelectron Circular Dichroism of Bicyclic Ketones from Multiphoton Ionization with Femtosecond Laser Pulses. ChemPhysChem, 2015, 16, 115-137.	2.1	84
9	Molecular Structure and Chirality Detection by Fourier Transform Microwave Spectroscopy. Journal of Physical Chemistry Letters, 2015, 6, 196-200.	4.6	80
10	Chirale Analyse komplexer MolekÃ¼lmischungen. Nachrichten Aus Der Chemie, 2016, 64, 313-316.	0.0	0
11	Advances in enantioselective analysis of chiral brominated flame retardants. Current status, limitations and future perspectives. Science of the Total Environment, 2016, 566-567, 1120-1130.	8.0	16
12	Enantiomeric Excess Sensitivity to Below One Percent by Using Femtosecond Photoelectron Circular Dichroism. ChemPhysChem, 2016, 17, 1119-1122.	2.1	69
13	Determination of accurate electron chiral asymmetries in fenchone and camphor in the VUV range: sensitivity to isomerism and enantiomeric purity. Physical Chemistry Chemical Physics, 2016, 18, 12696-12706.	2.8	80
14	Detecting Chirality in Molecules by Linearly Polarized Laser Fields. Physical Review Letters, 2016, 117, 033001.	7.8	52
15	Chiral Analysis Using Broadband Rotational Spectroscopy. Journal of Physical Chemistry Letters, 2016, 7, 341-350.	4.6	66
16	Antisymmetric Couplings Enable Direct Observation of Chirality in Nuclear Magnetic Resonance Spectroscopy. Journal of Physical Chemistry Letters, 2017, 8, 710-714.	4.6	19
17	Enantiomer-Specific State Transfer of Chiral Molecules. Physical Review Letters, 2017, 118, 123002.	7.8	106
18	Chiral discrimination in nuclear magnetic resonance spectroscopy. Journal of Physics Condensed Matter, 2017, 29, 443001.	1.8	18

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19	Intermediate state dependence of the photoelectron circular dichroism of fenchone observed via femtosecond resonance-enhanced multi-photon ionization. Journal of Chemical Physics, 2017, 147, 013926.	3.0	44
20	A new technique for probing chirality via photoelectron circular dichroism. Analytica Chimica Acta, 2017, 984, 134-139.	5.4	35
21	Molecular chirality: A new approach from a dynamical point of view. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2017, 93, 841-849.	3.8	1
22	Sensing Chirality with Rotational Spectroscopy. Annual Review of Physical Chemistry, 2018, 69, 499-519.	10.8	45
23	Orienting Asymmetric Molecules by Laser Fields with Twisted Polarization. Physical Review Letters, 2018, 120, 083204.	7.8	37
24	Microwave Spectrum and Molecular Structure of the Chiral Tagging Candidate, 3,3,3-Trifluoro-1,2-epoxypropane and Its Complex with the Argon Atom. Journal of Physical Chemistry A, 2018, 122, 4670-4680.	2.5	14
25	Selective Orientation of Chiral Molecules by Laser Fields with Twisted Polarization. Journal of Physical Chemistry Letters, 2018, 9, 1105-1111.	4.6	58
26	Chirality in molecular collision dynamics. Journal of Physics Condensed Matter, 2018, 30, 063003.	1.8	26
27	Multiple ionization and Coulomb explosion of molecules, molecular complexes, clusters and solid surfaces. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2018, 34, 52-84.	11.6	63
28	Quantitative Chiral Analysis by Molecular Rotational Spectroscopy. , 2018, , 679-729.		35
29	Vibrational Optical Activity in Chiral Analysis. , 2018, , 201-247.		7
30	Real single-loop cyclic three-level configuration of chiral molecules. Physical Review A, 2018, 98, .	2.5	38
31	Real-time determination of enantiomeric and isomeric content using photoelectron elliptical dichroism. Nature Communications, 2018, 9, 5212.	12.8	65
32	Electron asymmetries in the photoionization of chiral molecules: possible astrophysical implications. Advances in Physics: X, 2018, 3, 1477530.	4.1	26
33	Influence of spatial degeneracy on rotational spectroscopy: Three-wave mixing and enantiomeric state separation of chiral molecules. Journal of Chemical Physics, 2018, 149, 094201.	3.0	40
34	Enantioselective Raman spectroscopy (esR) for distinguishing between the enantiomers of 2-butanol. Analyst, The, 2018, 143, 3040-3048.	3.5	11
35	Theory of Enantiomer-Specific Microwave Spectroscopy. , 2018, , 713-743.		8
36	The microwave spectrum and molecular structure of 3,3-difluoro-1,2-epoxypropane and its complex with the argon atom. Journal of Molecular Spectroscopy, 2018, 350, 18-26.	1.2	5

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37	Absolute Configuration Determination by Quantum Mechanical Calculation of Chiroptical Spectra: Basics and Applications to Fungal Metabolites. Current Medicinal Chemistry, 2018, 25, 287-320.	2.4	114
38	Principles of enantio-selective excitation in three-wave mixing spectroscopy of chiral molecules. Journal of Chemical Physics, 2019, 151, 014302.	3.0	59
39	Robust and highly efficient discrimination of chiral molecules through three-mode parallel paths. Physical Review A, 2019, 100, .	2.5	37
40	Effective two-level models for highly efficient inner-state enantioseparation based on cyclic three-level systems of chiral molecules. Physical Review A, 2019, 100, .	2.5	25
41	Laser-induced persistent orientation of chiral molecules. Physical Review A, 2019, 100, .	2.5	22
42	Determination of enantiomeric excess with chirality-dependent ac Stark effects in cyclic three-level models. Physical Review A, 2019, 100, .	2.5	29
43	Controlled Enantioselective Orientation of Chiral Molecules with an Optical Centrifuge. Physical Review Letters, 2019, 122, 223201.	7.8	62
44	Chirality-dependent optical dipole potential. Physica Scripta, 2020, 95, 035405.	2.5	1
45	Enantiomeric-excess determination based on nonreciprocal-transition-induced spectral-line elimination. Physical Review A, 2020, 102, .	2.5	12
46	Enantio-discrimination via light deflection effect. Journal of Chemical Physics, 2020, 152, 204305.	3.0	21
47	Two-Path Interference for Enantiomer-Selective State Transfer of Chiral Molecules. Physical Review Applied, 2020, 13, .	3.8	37
48	Microwave Spectrum and Molecular Structure of 3-Fluoro-1,2-epoxypropane and the Unexpected Structure of Its Complex with the Argon Atom. Journal of Physical Chemistry A, 2020, 124, 1798-1810.	2.5	5
49	Symmetry Breaking in a Condensate of Light and its Use as a Quantum Sensor. Physical Review Applied, 2020, 13, .	3.8	5
50	Buffer gas cooling for sensitive rotational spectroscopy of ice chemistry: A proposal. Chemical Physics Letters, 2021, 762, 138125.	2.6	3
51	Enantio-conversion of chiral mixtures via optical pumping. Physical Review A, 2021, 103, .	2.5	15
52	Enantioselective orientation of chiral molecules induced by terahertz pulses with twisted polarization. Physical Review Research, 2021, 3, .	3.6	19
53	Self-referencing circular dichroism ion yield measurements for improved statistics using femtosecond laser pulses. Review of Scientific Instruments, 2021, 92, 033001.	1.3	6
54	Spatial enantioseparation of gaseous chiral molecules. Physical Review A, 2021, 104, .	2.5	14

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55	An improved laser-distillation method for complete enantio-conversion of chiral mixtures. Journal of Physics B: Atomic, Molecular and Optical Physics, 2021, 54, 145102.	1.5	6
56	Principal component analysis to enhance enantioselective Raman spectroscopy. Analyst, The, 2019, 144, 2080-2086.	3.5	4
57	Evading thermal population influence on enantiomeric-specific state transfer based on a cyclic three-level system via ro-vibrational transitions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 235103.	1.5	12
58	Fast enantioconversion of chiral mixtures based on a four-level double- <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi mathvariant="normal">Î”</mml:mi></mml:math> model. Physical Review Research, 2020, 2, .	3.6	19
59	Enantio-detection via cavity-assisted three-photon processes. Optics Express, 2021, 29, 36132.	3.4	7
60	Cyclic three-level-pulse-area theorem for enantioselective state transfer of chiral molecules. Physical Review A, 2022, 105, .	2.5	9
61	Enantioselective chiral orientation induced by a combination of a long and a short laser pulse. Physical Review A, 2022, 105, .	2.5	5
62	Chiral Discrimination via Shortcuts to Adiabaticity and Optimal Control. Annalen Der Physik, 0, , 2100573.	2.4	6
63	Revealing the Influence of Molecular Chirality on Tunnel-Ionization Dynamics. Physical Review X, 2021, 11, .	8.9	7
64	Increasing ion yield circular dichroism in femtosecond photoionisation using optimal control theory. Physical Chemistry Chemical Physics, 2022, , .	2.8	1
65	Construction and Demonstration of a 6â€“18 GHz Microwave Three-Wave Mixing Experiment Using Multiple Synchronized Arbitrary Waveform Generators. Symmetry, 2022, 14, 848.	2.2	2
66	Enantiospecific state transfer for gaseous symmetric-top chiral molecules. Physical Review A, 2022, 105, .	2.5	3
67	Optimization of the double-laser-pulse scheme for enantioselective orientation of chiral molecules. Journal of Chemical Physics, 2022, 157, .	3.0	4
68	Quantum phases of bosonic chiral molecules in helicity lattices. Physical Review A, 2022, 106, .	2.5	2
69	Enantiodiscrimination of chiral molecules via quantum correlation function. Optics Express, 2022, 30, 31073.	3.4	7
70	Discrimination of enantiomers for chiral molecules using analytically designed microwave pulses. Physical Chemistry Chemical Physics, 2022, 24, 18722-18728.	2.8	3
71	Enantiomer-specific state transfer of chiral molecules in cyclic three-level systems with SU(2) structures. Physical Review A, 2023, 107, .	2.5	3
72	Chiral Control of Gasâ€Phase Molecules using Microwave Pulses. Angewandte Chemie - International Edition, 2023, 62, .	13.8	2

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73	Chiral control of gasâ€phase molecules using microwave pulses. Angewandte Chemie, 0, , .	2.0	0
74	Fast and precise chiroptical spectroscopy by photoelectron elliptical dichroism. Physical Chemistry Chemical Physics, 2023, 25, 16246-16263.	2.8	2
75	Single-Shot Nondestructive Quantum Sensing for Gaseous Samples with Hundreds of Chiral Molecules. Journal of Physical Chemistry Letters, 2023, 14, 6772-6777.	4.6	6
76	Phase-matched locally chiral light for global control of chiral lightâ€“matter interaction. Optics Letters, 2023, 48, 5511.	3.3	2
77	Polarization-dependent intensity ratios in double resonance spectroscopy. Journal of Chemical Physics, 2023, 159, .	3.0	2
78	Machine-Learning Enhanced Enantioselective Single-Shot-Single-Molecule ac Stark Spectroscopy. Journal of Physical Chemistry Letters, 2023, 14, 10067-10073.	4.6	2
79	Optical-pumping enantio-conversion of chiral mixtures in presence of tunneling between chiral states. New Journal of Physics, 0, , .	2.9	0
80	Enantioselective switch on responses of dissipative chiral molecules. Physical Review A, 2024, 109, .	2.5	0