

# Hanna Rostkowska

## List of Publications by Year in descending order

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52  
papers

1,749  
citations

279487

23  
h-index

276539

41  
g-index

52  
all docs

52  
docs citations

52  
times ranked

1087  
citing authors

#	ARTICLE	IF	CITATIONS
1	Matrix isolation studies of nucleic acid constituents. 1. Infrared spectra of uracil monomers. Journal of the American Chemical Society, 1983, 105, 5969-5976.	6.6	182
2	Thiouracils. 2. Tautomerism and infrared spectra of thiouracils. Matrix-isolation and ab initio studies. Journal of the American Chemical Society, 1990, 112, 2147-2160.	6.6	117
3	Tautomerism N(9)H .dblharw. N(7)H of Purine, Adenine, and 2-Chloroadenine: Combined Experimental IR Matrix Isolation and Ab Initio Quantum Mechanical Studies. The Journal of Physical Chemistry, 1994, 98, 2813-2816.	2.9	112
4	Analysis of the normal modes of molecules with D3h symmetry. Vibrational Spectroscopy, 2009, 49, 43-51.	1.2	108
5	Experimental matrix isolation and theoretical ab initio HF/6-31G(d, p) studies of infrared spectra of purine, adenine and 2-chloroadenine. Spectrochimica Acta Part A: Molecular Spectroscopy, 1994, 50, 1081-1094.	0.1	94
6	Theoretical and matrix-isolation experimental study on 2(1H)-pyridinethione/2-pyridinethiol. The Journal of Physical Chemistry, 1990, 94, 7406-7414.	2.9	84
7	NIR-laser-induced selective rotamerization of hydroxy conformers of cytosine. Physical Chemistry Chemical Physics, 2010, 12, 9615.	1.3	57
8	Proton-Transfer Processes in Thiourea: A UV Induced Thione to Thiol Reaction and Ground State Thiol to Thione Tunneling. Journal of Physical Chemistry A, 2003, 107, 6373-6380.	1.1	56
9	Near-Infrared Laser-Induced Generation of Three Rare Conformers of Glycolic Acid. Journal of Physical Chemistry A, 2014, 118, 5626-5635.	1.1	49
10	Infrared spectra of 2-thiocytosine and 5-fluoro-2-thiocytosine; experimental and ab initio studies. Spectrochimica Acta Part A: Molecular Spectroscopy, 1993, 49, 551-565.	0.1	45
11	Molecular structure and infrared spectra of 2-hydroxy-1,4- naphthoquinone; Experimental matrix isolation and theoretical Hartree-Fock and post Hartree-Fock study. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 1998, 54, 1091-1103.	2.0	42
12	Infrared experimental and ab initio quantum mechanical studies of 2-mercaptopyrimidine tautomers. Spectrochimica Acta Part A: Molecular Spectroscopy, 1991, 47, 339-353.	0.1	41
13	Three Conformers of 2-Furoic Acid: Structure Changes Induced with Near-IR Laser Light. Journal of Physical Chemistry A, 2015, 119, 1037-1047.	1.1	40
14	The tautomeric equilibria of thioanalogues of nucleic acids: spectroscopic studies of 2-thiouracils in the vapour phase and in low temperature matrices. Journal of Molecular Structure, 1988, 176, 137-147.	1.8	39
15	Infrared spectra of thiouracils: experimental matrix isolation and ab initio Hartree-Fock, post-Hartree-Fock and density functional theory studies. Vibrational Spectroscopy, 1996, 13, 23-40.	1.2	39
16	UV-Induced Generation of Rare Tautomers of 2-Thiouracils: A Matrix Isolation Study. Journal of Physical Chemistry A, 2005, 109, 7700-7707.	1.1	33
17	Conformational Transformation in Squaric Acid Induced by Near-IR Laser Light. Journal of Physical Chemistry A, 2013, 117, 5251-5259.	1.1	33
18	Near-IR-Induced, UV-Induced, and Spontaneous Isomerizations in 5-Methylcytosine and 5-Fluorocytosine. Journal of Physical Chemistry B, 2014, 118, 2831-2841.	1.2	33

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19	IR spectral and theoretical characterization of intramolecular hydrogen bonds closing five-membered rings. <i>Physical Chemistry Chemical Physics</i> , 2001, 3, 3012-3017.	1.3	32
20	Vibrational resonances in infrared spectra of uracils. <i>Spectrochimica Acta Part A: Molecular Spectroscopy</i> , 1989, 45, 499-502.	0.1	30
21	UV induced proton transfer in thioacetamide: first observation of thiol form of simple thioamide. Electronic supplementary information (ESI): Tables S1 and S2 provide internal coordinates used in the normal mode analysis for the thione and thiol tautomers of thioacetamide. Atom numbering is given in Scheme S1. Infrared spectra of thioacetamide isolated in N <sub>2</sub> and Ar matrices are compared in Figs. S1 and S2 with the spectra theoretically predicted at the DFT level. Table S3 provides the assignment of the bands. <i>Physical Chemistry Chemical Physics</i> , 2003, 5, 1524-1529.	1.3	29
22	Double-Proton-Transfer Processes in Dithioxamide: UV-Induced Dithione ↔ Dithiol Reaction and Ground-State Dithiol ↔ Dithione Tunneling. <i>Journal of Physical Chemistry A</i> , 2004, 108, 5551-5558.	1.1	24
23	Autoassociates and tautomerism of 2-oxo-5-halogenopyrimidines: theoretical and experimental investigations. <i>Journal of Molecular Structure</i> , 1986, 140, 235-251.	1.8	23
24	Photochemical Ring-Opening Reaction in 2(1H)-Pyrimidinones: A Matrix Isolation Study. <i>Journal of Physical Chemistry A</i> , 2003, 107, 5913-5919.	1.1	23
25	Photochemical Double-Proton-Transfer Reactions in 2,6-Dithiopurine. A Matrix Isolation Study. <i>Journal of Physical Chemistry A</i> , 2003, 107, 804-809.	1.1	22
26	UV-Induced Trithione ↔ Trithiol Triple Proton Transfer in Trithiocyanuric Acid Isolated in Low-Temperature Matrixes. <i>Journal of Physical Chemistry A</i> , 2005, 109, 2160-2166.	1.1	22
27	UV-induced transformations of matrix-isolated 1,3,4-thiadiazole-2-thiones. <i>Journal of Physical Organic Chemistry</i> , 2010, 23, 56-66.	0.9	22
28	Hydrogen-atom tunneling through a very high barrier; spontaneous thiol ↔ thione conversion in thiourea isolated in low-temperature Ar, Ne, H <sub>2</sub> and D <sub>2</sub> matrices. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 13994-14002.	1.3	22
29	Positive Identification of UV-Generated, Non-Hydrogen-Bonded Isomers of <i>o</i> -Hydroxybenzaldehyde and <i>o</i> -Hydroxyacetophenone. <i>Journal of Physical Chemistry A</i> , 2010, 114, 5588-5595.	1.1	21
30	UV-induced hydrogen-atom transfer and hydrogen-atom detachment in monomeric 7-azaindole isolated in Ar and n-H <sub>2</sub> matrices. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 11447-11454.	1.3	21
31	UV-induced generation of rare tautomers of allopurinol and 9-methylhypoxanthine – A matrix isolation FTIR study. <i>Biophysical Chemistry</i> , 2006, 122, 123-135.	1.5	19
32	Tunable Diode Lasers as a Tool for Conformational Control: The Case of Matrix-Isolated Oxamic Acid. <i>Journal of Physical Chemistry A</i> , 2015, 119, 2203-2210.	1.1	19
33	Normal mode analysis of the vibrational spectrum of tropolone-A molecule with seven-membered ring. <i>International Journal of Quantum Chemistry</i> , 2002, 90, 1163-1173.	1.0	18
34	Intramolecular Vibrational Energy Redistribution in 2-Thiocytosine: SH Rotamerization Induced by Near-IR Selective Excitation of NH <sub>2</sub> Stretching Overtone. <i>Journal of Physical Chemistry A</i> , 2015, 119, 9262-9271.	1.1	17
35	Solid H <sub>2</sub> versus solid noble-gas environment: Influence on photoinduced hydrogen-atom transfer in matrix-isolated 4(3H)-pyrimidinone. <i>Journal of Chemical Physics</i> , 2017, 146, .	1.2	17
36	Theoretical study of the O-H stretching band in 3-hydroxy-2-methyl-4-pyrone. <i>Journal of Chemical Physics</i> , 1998, 108, 9685-9693.	1.2	16

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37	UV-Induced Hydrogen-Atom Transfer in 3,6-Dithiopyridazine and in Model Compounds 2-Thiopyridine and 3-Thiopyridazine. <i>Journal of Physical Chemistry A</i> , 2011, 115, 12142-12149.	1.1	16
38	Conformers of Kojic Acid and Their Near-IR-Induced Conversions: Long-Range Intramolecular Vibrational Energy Transfer. <i>Journal of Physical Chemistry A</i> , 2016, 120, 2647-2656.	1.1	16
39	Theoretical and matrix-isolation experimental studies on 2-thiocytosine and 5-fluoro-2-thiocytosine. <i>Biochimica Et Biophysica Acta Gene Regulatory Mechanisms</i> , 1993, 1172, 239-246.	2.4	15
40	Molecular structure and infrared spectra of 3,4-dihydroxy-3-cyclobutene-1,2-dione; experimental matrix isolation and theoretical Hartree-Fock and post Hartree-Fock study. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 1997, 53, 959-968.	2.0	15
41	UV-Induced Oxo $\hat{a}$ ' Hydroxy Unimolecular Proton-Transfer Reactions in Hypoxanthine. <i>Journal of Physical Chemistry A</i> , 2006, 110, 10236-10244.	1.1	15
42	Proton transfer processes in selenourea: UV-induced selenone $\hat{a}$ 'selenol photoreaction and ground state selenol $\hat{a}$ 'selenone proton tunneling. <i>Chemical Physics</i> , 2004, 298, 223-232.	0.9	14
43	Unimolecular Photochemistry of 4-Thiouracils. <i>Photochemistry and Photobiology</i> , 2005, 81, 1205.	1.3	12
44	UV-Induced Hydrogen-Atom-Transfer Processes in 3-Thio-1,2,4-triazole Isolated in Ar and H <sub>2</sub> Low-Temperature Matrixes. <i>Journal of Physical Chemistry A</i> , 2017, 121, 6932-6941.	1.1	11
45	Photochemical Isomerizations of Thiosemicarbazide, a Matrix Isolation Study. <i>Journal of Physical Chemistry A</i> , 2012, 116, 9863-9871.	1.1	10
46	Unimolecular proton-transfer photoreactions in 2,4-dithiouracil and 6-aza-2,4-dithiouracil: A matrix isolation study. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2006, 184, 322-330.	2.0	6
47	Conformational Isomerizations by Rotation around C=C or C=N Bonds: A Comparative Study on Matrix-Isolated Glycolamide and N-Hydroxyurea Excited with Near-IR Laser Light. <i>Journal of Physical Chemistry A</i> , 2019, 123, 3831-3839.	1.1	5
48	Photochemical transformations of 4,6-dihydropyrimidine and 2-methyl-4,6-dihydropyrimidine isolated in low-temperature Ar, Ne and H <sub>2</sub> matrices. <i>Chemical Physics Letters</i> , 2020, 745, 137263.	1.2	3
49	Photochemical Generation of Benzoazetinone by UV Excitation of Matrix-Isolated Precursors: Isatin or Isatoic Anhydride. <i>Journal of Physical Chemistry A</i> , 2020, 124, 4106-4114.	1.1	3
50	Effect of a Solid-Hydrogen Environment on UV-Induced Hydrogen-Atom Transfer in Matrix-Isolated Heterocyclic Thione Compounds. <i>Journal of Physical Chemistry A</i> , 2021, 125, 7437-7448.	1.1	3
51	Distinct class of photoinduced hydrogen-atom-transfer processes: phototautomerizations in molecules with no intramolecular hydrogen bond in the structure. <i>International Reviews in Physical Chemistry</i> , 2022, 41, 1-47.	0.9	3
52	Phototransformations of 2,3-Diamino-2-Butenedinitrile (DAMN) Monomers Isolated in Low-Temperature Argon Matrix. <i>Photochem</i> , 2022, 2, 448-462.	1.3	1