

# Isik Kanik

## List of Publications by Year in descending order

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Version: 2024-02-01

47  
papers

2,175  
citations

236925

25  
h-index

223800

46  
g-index

47  
all docs

47  
docs citations

47  
times ranked

2392  
citing authors

#	ARTICLE	IF	CITATIONS
1	Extraction and Separation of Chiral Amino Acids for Life Detection on Ocean Worlds Without Using Organic Solvents or Derivatization. <i>Astrobiology</i> , 2021, 21, 575-586.	3.0	9
2	Simulating Serpentinization as It Could Apply to the Emergence of Life Using the JPL Hydrothermal Reactor. <i>Astrobiology</i> , 2020, 20, 307-326.	3.0	22
3	Online supercritical fluid extraction and chromatography of biomarkers analysis in aqueous samples for in situ planetary applications. <i>Analytical and Bioanalytical Chemistry</i> , 2019, 411, 8091-8101.	3.7	7
4	Extraction of amino acids using supercritical carbon dioxide for in situ astrobiological applications. <i>International Journal of Astrobiology</i> , 2019, 18, 102-111.	1.6	3
5	Supercritical Carbon Dioxide Extraction of Coronene in the Presence of Perchlorate for In Situ Chemical Analysis of Martian Regolith. <i>Astrobiology</i> , 2016, 16, 703-714.	3.0	6
6	Chemical Gardens as Flow-through Reactors Simulating Natural Hydrothermal Systems. <i>Journal of Visualized Experiments</i> , 2015, , .	0.3	17
7	From Chemical Gardens to Fuel Cells: Generation of Electrical Potential and Current Across Self-Assembling Iron Mineral Membranes. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 8184-8187.	13.8	92
8	From Chemical Gardens to Fuel Cells: Generation of Electrical Potential and Current Across Self-Assembling Iron Mineral Membranes. <i>Angewandte Chemie</i> , 2015, 127, 8302-8305.	2.0	22
9	Mackinawite and greigite in ancient alkaline hydrothermal chimneys: Identifying potential key catalysts for emergent life. <i>Earth and Planetary Science Letters</i> , 2015, 430, 105-114.	4.4	69
10	Pyrophosphate synthesis in iron mineral films and membranes simulating prebiotic submarine hydrothermal precipitates. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 128, 1-12.	3.9	46
11	The Drive to Life on Wet and Icy Worlds. <i>Astrobiology</i> , 2014, 14, 308-343.	3.0	232
12	The Fuel Cell Model of Abiogenesis: A New Approach to Origin-of-Life Simulations. <i>Astrobiology</i> , 2014, 14, 254-270.	3.0	33
13	Electron and photon dissociation cross sections of the H <sub>2</sub> singlet ungerade continua. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2012, 45, 015201.	1.5	6
14	Integral cross sections for the electron-impact excitation of the $\text{H}^{\text{+}}$ Ly $\alpha$ line. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2012, 45, 015201.	2.5	28
15	Characterization of Iron-Phosphate-Silicate Chemical Garden Structures. <i>Langmuir</i> , 2012, 28, 3714-3721.	3.5	70
16	Peptide and RNA contributions to iron-sulphur chemical gardens as life's first inorganic compartments, catalysts, capacitors and condensers. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2012, 370, 3007-3022.	3.4	42
17	Ultraviolet-Stimulated Fluorescence and Phosphorescence of Aromatic Hydrocarbons in Water Ice. <i>Astrobiology</i> , 2011, 11, 151-156.	3.0	9
18	Iron-Sulfide-Bearing Chimneys as Potential Catalytic Energy Traps at Life's Emergence. <i>Astrobiology</i> , 2011, 11, 933-950.	3.0	77

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19	Formation of radical species in photolyzed CH <sub>4</sub> :N <sub>2</sub> ices. <i>Icarus</i> , 2011, 214, 748-753.	2.5	23
20	Interfacial Reactions of Ozone with Surfactant Protein B in a Model Lung Surfactant System. <i>Journal of the American Chemical Society</i> , 2010, 132, 2254-2263.	13.7	49
21	Time Resolved Studies of Interfacial Reactions of Ozone with Pulmonary Phospholipid Surfactants Using Field Induced Droplet Ionization Mass Spectrometry. <i>Journal of Physical Chemistry B</i> , 2010, 114, 9496-9503.	2.6	37
22	Design, Fabrication, and Test of a Hydrothermal Reactor for Origin-of-Life Experiments. <i>Astrobiology</i> , 2010, 10, 799-810.	3.0	58
23	Trace elements record depositional history of an Early Archean stromatolitic carbonate platform. <i>Chemical Geology</i> , 2010, 270, 148-163.	3.3	154
24	Controls on development and diversity of Early Archean stromatolites. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 9548-9555.	7.1	235
25	Photochemistry of methane-water ices. <i>Icarus</i> , 2009, 200, 338-342.	2.5	43
26	Structural Characterization of Unsaturated Phosphatidylcholines Using Traveling Wave Ion Mobility Spectrometry. <i>Analytical Chemistry</i> , 2009, 81, 8289-8297.	6.5	98
27	Methanol on Enceladus. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	20
28	Electron-impact excitation and emission cross sections of the H <sub>2</sub> p <sub>xo</sub> and d <sub>xo</sub> states and rotational dependence of photodissociation cross sections of the p <sub>xo</sub> and d <sub>xo</sub> continua. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2009, 42, 185203.	1.5	7
29	HYDROGEN-DEUTERIUM EXCHANGE IN PHOTOLYZED METHANE-WATER ICES. <i>Astrophysical Journal</i> , 2009, 703, 1030-1033.	4.5	18
30	Carbon dioxide segregation in 1:4 and 1:9 CO <sub>2</sub> :H <sub>2</sub> O ices. <i>Icarus</i> , 2008, 194, 836-842.	2.5	32
31	Release of N <sub>2</sub> , CH <sub>4</sub> , CO <sub>2</sub> , and H <sub>2</sub> O from surface ices on Enceladus. <i>Icarus</i> , 2008, 197, 152-156.	2.5	7
32	Experimental and coupled-channels investigation of the radiative properties of the N <sub>2</sub> <sup>+</sup> c <sub>4</sub> <sup>1</sup> and c <sub>2</sub> <sup>+</sup> band system. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	13
33	Experimental and Theoretical Investigation into the Correlation between Mass and Ion Mobility for Choline and Other Ammonium Cations in N <sub>2</sub> . <i>Analytical Chemistry</i> , 2008, 80, 1928-1936.	6.5	76
34	Analysis of Underivatized Amino Acids in Geological Samples Using Ion-Pairing Liquid Chromatography and Electro spray Tandem Mass Spectrometry. <i>Astrobiology</i> , 2008, 8, 229-241.	3.0	15
35	Ultraviolet photolysis of amino acids in a 100 K water ice matrix: Application to the outer Solar System bodies. <i>Icarus</i> , 2007, 187, 584-591.	2.5	39
36	Ion mobility spectrometry in space exploration. <i>International Journal of Mass Spectrometry</i> , 2007, 262, 1-15.	1.5	42

#	ARTICLE	IF	CITATIONS
37	of the Physical Properties of the N <sub>2</sub> <sup>+</sup> documentclass{aastex} usepackage{ambsy} usepackage{amssymb} usepackage{bm} usepackage{mathrsfs} usepackage{pifont} usepackage{stmaryrd} usepackage{textcomp} usepackage{portland,xspace} usepackage{amsmath,amsxtra} usepackage[OT2,OT1]{fontenc} ewcommandcyr{enewcommandmdefault{wncyr} enewcommandsfdefault{wncyss} enewcommandencodingdefault{OT2} ormalfont-selectfont} usepackage{fontspec} usepackage{fontawesome} usepackage{fontawesome5} usepackage{fontawesome6} usepackage{fontawesome7} usepackage{fontawesome8} usepackage{fontawesome9} usepackage{fontawesome10} usepackage{fontawesome11} usepackage{fontawesome12} usepackage{fontawesome13} usepackage{fontawesome14} usepackage{fontawesome15} usepackage{fontawesome16} usepackage{fontawesome17} usepackage{fontawesome18} usepackage{fontawesome19} usepackage{fontawesome20} usepackage{fontawesome21} usepackage{fontawesome22} usepackage{fontawesome23} usepackage{fontawesome24} usepackage{fontawesome25} usepackage{fontawesome26} usepackage{fontawesome27} usepackage{fontawesome28} usepackage{fontawesome29} usepackage{fontawesome30} usepackage{fontawesome31} usepackage{fontawesome32} usepackage{fontawesome33} usepackage{fontawesome34} usepackage{fontawesome35} usepackage{fontawesome36} usepackage{fontawesome37} usepackage{fontawesome38} usepackage{fontawesome39} usepackage{fontawesome40} usepackage{fontawesome41} usepackage{fontawesome42} usepackage{fontawesome43} usepackage{fontawesome44} usepackage{fontawesome45} usepackage{fontawesome46} usepackage{fontawesome47} usepackage{fontawesome48} usepackage{fontawesome49} usepackage{fontawesome50} usepackage{fontawesome51} usepackage{fontawesome52} usepackage{fontawesome53} usepackage{fontawesome54} usepackage{fontawesome55} usepackage{fontawesome56} usepackage{fontawesome57} usepackage{fontawesome58} usepackage{fontawesome59} usepackage{fontawesome60} usepackage{fontawesome61} usepackage{fontawesome62} usepackage{fontawesome63} usepackage{fontawesome64} usepackage{fontawesome65} usepackage{fontawesome66} usepackage{fontawesome67} usepackage{fontawesome68} usepackage{fontawesome69} usepackage{fontawesome70} usepackage{fontawesome71} usepackage{fontawesome72} usepackage{fontawesome73} usepackage{fontawesome74} usepackage{fontawesome75} usepackage{fontawesome76} usepackage{fontawesome77} usepackage{fontawesome78} usepackage{fontawesome79} usepackage{fontawesome80} usepackage{fontawesome81} usepackage{fontawesome82} usepackage{fontawesome83} usepackage{fontawesome84} usepackage{fontawesome85} usepackage{fontawesome86} usepackage{fontawesome87} usepackage{fontawesome88} usepackage{fontawesome89} usepackage{fontawesome90} usepackage{fontawesome91} usepackage{fontawesome92} usepackage{fontawesome93} usepackage{fontawesome94} usepackage{fontawesome95} usepackage{fontawesome96} usepackage{fontawesome97} usepackage{fontawesome98} usepackage{fontawesome99} usepackage{fontawesome100}	4.5	15
38	Electrospray Ionization Ion Mobility Spectrometry of Carboxylate Anions: Ion Mobilities and a Mass <sup>m</sup> Mobility Correlation. Journal of Physical Chemistry A, 2005, 109, 7888-7895.	2.5	27
39	Electrospray Ionization Ion Mobility Spectrometry of Amino Acids: Ion Mobilities and a Mass <sup>m</sup> Mobility Correlation. Journal of Physical Chemistry A, 2004, 108, 5785-5792.	2.5	41
40	Kinetic energy distributions and line profile measurements of dissociation products of water upon electron impact. Journal of Geophysical Research, 2004, 109, .	3.3	41
41	A nanoscale soft-ionization membrane: A novel ionizer for ion mobility spectrometers for space applications. , 2002, 4936, 43.		4
42	Effects of drift-gas polarizability on glycine peptides in ion mobility spectrometry. International Journal of Mass Spectrometry, 2002, 216, 257-268.	1.5	68
43	Investigation of drift gas selectivity in high resolution ion mobility spectrometry with mass spectrometry detection. Journal of the American Society for Mass Spectrometry, 2002, 13, 300-307.	2.8	97
44	Electrospray Ionization High-Resolution Ion Mobility Spectrometry for the Detection of Organic Compounds, 1. Amino Acids. Analytical Chemistry, 2001, 73, 3028-3034.	6.5	76
45	High-resolution studies of extreme-ultraviolet emission from CO by electron impact. Physical Review A, 1997, 55, 3547-3556.	2.5	15
46	Kinetic Energy Distribution of H(2p) Atoms from Dissociative Excitation of H <sub>2</sub> . Physical Review Letters, 1995, 75, 3261-3264.	7.8	16
47	Medium-resolution studies of extreme-ultraviolet emission from CO by electron impact. Physical Review A, 1995, 51, 2067-2074.	2.5	19