# Yoshinori Takano

List of Publications by Year
in descending order



| 89 | 3,456 | 186265 28 | 161849 54 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 96 | 96 | 96 | 3853 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Preliminary analysis of the Hayabusa2 samples returned from C-type asteroid Ryugu. Nature Astronomy, 2022, 6, 214-220. | 10.1 | 136 |
| 2 | Identifying the wide diversity of extraterrestrial purine and pyrimidine nucleobases in carbonaceous meteorites. Nature Communications, 2022, 13, 2008. | 12.8 | 53 |
| 3 | The GAs Extraction and Analyses system (GAEA) for immediate extraction and measurements of volatiles in the Hayabusa2 sample container. Earth, Planets and Space, 2022, 74, . | 2.5 | 9 |
| 4 | Environmental assessment in the prelaunch phase of Hayabusa2 for safety declaration of returned samples from the asteroid (162173) Ryugu: background monitoring and risk management during development of the sampler system. Earth, Planets and Space, 2022, 74, . | 2.5 | 11 |
| 5 | Origin of Deep Methane Associated with a Unique Community of Microorganisms in an Organic- and Iodine-Rich Aquifer. ACS Earth and Space Chemistry, 2021, 5, 1-11. | 2.7 | 6 |
| 6 | Beryllium isotopes in sediments from Lake Maruwan Oike and Lake Skallen, East Antarctica, reveal substantial glacial discharge during the late Holocene. Quaternary Science Reviews, 2021, 256, 106841. | 3.0 | 9 |
| 7 | Analytical development of seamless procedures on cation-exchange chromatography and ion-pair chromatography with high-precision mass spectrometry for short-chain peptides. International Journal of Mass Spectrometry, 2021, 463, 116529. | 1.5 | 4 |
| 8 | Analytical protocols for Phobos regolith samples returned by the Martian Moons eXploration (MMX) mission. Earth, Planets and Space, 2021, 73, 120. | 2.5 | 8 |
| 9 | Insights into the Methanogenic Population and Potential in Subsurface Marine Sediments Based on Coenzyme F430 as a Function-Specific Biomarker. Jacs Au, 2021, 1, 1743-1751. | 7.9 | 6 |
| 10 | Detection of planktonic coenzyme factor 430 in a freshwater lake: small-scale analysis for probing archaeal methanogenesis. Progress in Earth and Planetary Science, 2021, 8, . | 3.0 | 3 |
| 11 | Primordial organic matter in the xenolithic clast in the Zag H chondrite: Possible relation to D/P asteroids. Geochimica Et Cosmochimica Acta, 2020, 271, 61-77. | 3.9 | 12 |
| 12 | Quantification and Carbon and Nitrogen Isotopic Measurements of Heme B in Environmental Samples. Analytical Chemistry, 2020, 92, 11213-11222. | 6.5 | 14 |
| 13 | A method for stable carbon isotope measurement of underivatized individual amino acids by multiâ€dimensional highâ€performance liquid chromatography and elemental analyzer/isotope ratio mass spectrometry. Rapid Communications in Mass Spectrometry, 2020, 34, e8885. | 1.5 | 15 |
| 14 | Returning Samples From Enceladus for Life Detection. Frontiers in Astronomy and Space Sciences, 2020, 7, . | 2.8 | 32 |
| 15 | Extraterrestrial hexamethylenetetramine in meteoritesâ€”a precursor of prebiotic chemistry in the inner solar system. Nature Communications, 2020, 11, 6243. | 12.8 | 32 |
| 16 | Precometary organic matter: A hidden reservoir of water inside the snow line. Scientific Reports, 2020, 10, 7755. | 3.3 | 16 |
| 17 | The Importance of Phobos Sample Return for Understanding the Mars-Moon System. Space Science Reviews, 2020, 216, 1. | 8.1 | 45 |
| 18 | Isolation of an archaeon at the prokaryoteâ€“eukaryote interface. Nature, 2020, 577, 519-525. | 27.8 | 449 |

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|---|---|---|---|
| 19 | Chemical assessment of the explosive chamber in the projector system of Hayabusa2 for asteroid sampling. Earth, Planets and Space, 2020, 72, . | 2.5 | 8 |
| 20 | A new insight into isotopic fractionation associated with decarboxylation in organisms: implications for amino acid isotope approaches in biogeoscience. Progress in Earth and Planetary Science, 2020, 7, . | 3.0 | 22 |
| 21 | Peptide Synthesis under the Alkaline Hydrothermal Conditions on Enceladus. ACS Earth and Space Chemistry, 2019, 3, 2559-2568. | 2.7 | 20 |
| 22 | Nucleobase synthesis in interstellar ices. Nature Communications, 2019, 10, 4413. | 12.8 | 65 |
| 23 | Further characterization of carbonaceous materials in Hayabusaâ€returned samples to understand their origin. Meteoritics and Planetary Science, 2019, 54, 638-666. | 1.6 | 12 |
| 24 | Molecular and isotopic compositions of nitrogen-containing organic molecules formed during UV-irradiation of simulated interstellar ice. Geochemical Journal, 2019, 53, 5-20. | 1.0 | 6 |
| 25 | d -Amino acids in molecular evolution in space â€“ Absolute asymmetric photolysis and synthesis of amino acids by circularly polarized light. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2018, 1866, 743-758. | 2.3 | 25 |
| 26 | Amino acids on witness coupons collected from the ISAS/JAXA curation facility for the assessment and quality control of the Hayabusa2 sampling procedure. Earth, Planets and Space, 2018, 70, . | 2.5 | 8 |
| 27 | Suspected meteorite fragments in marine sediments from East Antarctica. Antarctic Science, 2018, 30, 307-321. | 0.9 | 1 |
| 28 | Insight into anaerobic methanotrophy from 13C/12C- amino acids and 14C/12C-ANME cells in seafloor microbial ecology. Scientific Reports, 2018, 8, 14070. | 3.3 | 15 |
| 29 | A new analytical method for determination of the nitrogen isotopic composition of methionine: Its application to aquatic ecosystems with mixed resources. Limnology and Oceanography: Methods, 2018, 16, 607-620. | 2.0 | 23 |
| 30 | Improved Method for Isolation and Purification of Underivatized Amino Acids for Radiocarbon Analysis. Analytical Chemistry, 2018, 90, 12035-12041. | 6.5 | 20 |
| 31 | Quantitative analysis of underivatized amino acids in the sub- to several-nanomolar range by ion-pair HPLC using a corona-charged aerosol detector (HPLCâ€“CAD). Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2018, 1095, 191-197. | 2.3 | 28 |
| 32 | Hayabusa2 Sampler: Collection of Asteroidal Surface Material. Space Science Reviews, 2017, 208, 81-106. | 8.1 | 84 |
| 33 | Nitrogen Isotopic Fractionation in Ammonia during Adsorption on Silicate Surfaces. ACS Earth and Space Chemistry, 2017, 1, 24-29. | 2.7 | 17 |
| 34 | Fractionation of nitrogen isotopes during amino acid metabolism in heterotrophic and chemolithoautotrophic microbes across Eukarya, Bacteria, and Archaea: Effects of nitrogen sources and metabolic pathways. Organic Geochemistry, 2017, 111, 101-112. | 1.8 | 46 |
| 35 | Intraâ€trophic isotopic discrimination of <sup>15</sup>N/<sup>14</sup>N for amino acids in autotrophs: Implications for nitrogen dynamics in ecological studies. Ecology and Evolution, 2017, 7, 2916-2924. | 1.9 | 18 |
| 36 | Advances in the application of amino acid nitrogen isotopic analysis in ecological and biogeochemical studies. Organic Geochemistry, 2017, 113, 150-174. | 1.8 | 213 |

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|---|---|---|---|
| 37 | Hayabusa2 Sample Catcher and Container: Metal-Seal System for Vacuum Encapsulation of Returned Samples with Volatiles and Organic Compounds Recovered from C-Type Asteroid Ryugu. Space Science Reviews, 2017, 208, 107-124. | 8.1 | 39 |
| 38 | Deuterium Fractionation upon the Formation of Hexamethylenetetramines through Photochemical Reactions of Interstellar Ice Analogs Containing Deuterated Methanol Isotopologues. Astrophysical Journal, 2017, 849, 122. | 4.5 | 13 |
| 39 | A diatomâ€inferred record of lake variability during the last 900 years in LÃ¼tzowâ€“Holm Bay, East Antarctica. Journal of Quaternary Science, 2016, 31, 114-125. | 2.1 | 3 |
| 40 | DEUTERIUM FRACTIONATION DURING AMINO ACID FORMATION BY PHOTOLYSIS OF INTERSTELLAR ICE ANALOGS CONTAINING DEUTERATED METHANOL. Astrophysical Journal Letters, 2016, 827, L18. | 8.3 | 26 |
| 41 | Amino acid compositions in heated carbonaceous chondrites and their compound-specific nitrogen isotopic ratios. Earth, Planets and Space, 2016, 68, . | 2.5 | 22 |
| 42 | Estimation of methanogenesis by quantification of coenzyme F430 in marine sediments. Geochemical Journal, 2016, 50, 453-460. | 1.0 | 7 |
| 43 | Diet quality influences isotopic discrimination among amino acids in an aquatic vertebrate. Ecology and Evolution, 2015, 5, 2048-2059. | 1.9 | 64 |
| 44 | ToF-SIMS analysis of carbonaceous particles in the sample catcher of the Hayabusa spacecraft. Earth, Planets and Space, 2015, 67, . | 2.5 | 20 |
| 45 | Isolation of underivatized amino acids by ion-pair high performance liquid chromatography for precise measurement of nitrogen isotopic composition of amino acids: Development of comprehensive LC Ã— GC/C/IRMS method. International Journal of Mass Spectrometry, 2015, 379, 16-25. | 1.5 | 32 |
| 46 | A micro-Raman and infrared study of several Hayabusa category 3 (organic) particles. Earth, Planets and Space, 2015, 67, 20. | 2.5 | 21 |
| 47 | Biogeochemistry and limnology in Antarctic subglacial weathering: molecular evidence of the linkage between subglacial silica input and primary producers in a perennially ice-covered lake. Progress in Earth and Planetary Science, 2015, 2, . | 3.0 | 6 |
| 48 | X-ray absorption near edge structure spectroscopic study of Hayabusa category 3 carbonaceous particles. Earth, Planets and Space, 2014, 66, . | 2.5 | 58 |
| 49 | Sequential analysis of carbonaceous materials in Hayabusa-returned samples for the determination of their origin. Earth, Planets and Space, 2014, 66, . | 2.5 | 36 |
| 50 | Quantitative Analysis of Coenzyme F430 in Environmental Samples: A New Diagnostic Tool for Methanogenesis and Anaerobic Methane Oxidation. Analytical Chemistry, 2014, 86, 3633-3638. | 6.5 | 31 |
| 51 | Planetary protection on international waters: An onboard protocol for capsule retrieval and biosafety control in sample return mission. Advances in Space Research, 2014, 53, 1135-1142. | 2.6 | 7 |
| 52 | H, C, and N isotopic compositions of Hayabusa category 3 organic samples. Earth, Planets and Space, 2014, 66, 91. | 2.5 | 31 |
| 53 | Diversity of sulfur-cycle prokaryotes in freshwater lake sediments investigated using aprA as the functional marker gene. Systematic and Applied Microbiology, 2013, 36, 436-443. | 2.8 | 48 |
| 54 | Detection of coenzyme F430 in deep sea sediments: A key molecule for biological methanogenesis. Organic Geochemistry, 2013, 58, 137-140. | 1.8 | 20 |

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| 55 | Amino Acid Precursors from a Simulated Lower Atmosphere of Titan: Experiments of Cosmic Ray Energy Source with 13C- and 18O-Stable Isotope Probing Mass Spectrometry. Analytical Sciences, 2013, 29, 777-785. | 1.6 | 7 |
| 56 | Stability of Amino Acids and Related Compounds in Simulated Submarine Hydrothermal Systems. Bulletin of the Chemical Society of Japan, 2012, 85, 624-630. | 3.2 | 5 |
| 57 | Characterization of Organic Aggregates Formed by Heating Products of Simulated Primitive Earth Atmosphere Experiments. Chemistry Letters, 2012, 41, 441-443. | 1.3 | 7 |
| 58 | Prebiotic Organic Microstructures. Origins of Life and Evolution of Biospheres, 2012, 42, 307-316. | 1.9 | 9 |
| 59 | Holocene lake development and glacial-isostatic uplift at Lake Skallen and Lake Oyako, LÃ¼tzow-Holm Bay, East Antarctica: Based on biogeochemical facies and molecular signatures. Applied Geochemistry, 2012, 27, 2546-2559. | 3.0 | 27 |
| 60 | Microbial Community Structure, Pigment Composition, and Nitrogen Source of Red Snow in Antarctica. Microbial Ecology, 2010, 59, 466-475. | 2.8 | 74 |
| 61 | Isolation and desalting with cation-exchange chromatography for compound-specific nitrogen isotope analysis of amino acids: application to biogeochemical samples. Rapid Communications in Mass Spectrometry, 2010, 24, 2317-2323. | 1.5 | 72 |
| 62 | Sedimentary membrane lipids recycled by deep-sea benthic archaea. Nature Geoscience, 2010, 3, 858-861. | 12.9 | 103 |
| 63 | Prebiotic Organic Globules. Nature Precedings, 2010, , . | 0.1 | 1 |
| 64 | Biogeography and Biodiversity in Sulfide Structures of Active and Inactive Vents at Deep-Sea Hydrothermal Fields of the Southern Mariana Trough. Applied and Environmental Microbiology, 2010, 76, 2968-2979. | 3.1 | 88 |
| 65 | Determination of aquatic foodâ€web structure based on compoundâ€specific nitrogen isotopic composition of amino acids. Limnology and Oceanography: Methods, 2009, 7, 740-750. | 2.0 | 507 |
| 66 | Organic Analysis of Peridotite Rocks from the Ashadze and Logatchev Hydrothermal Sites. International Journal of Molecular Sciences, 2009, 10, 2986-2998. | 4.1 | 17 |
| 67 | Abundance ofZetaproteobacteriawithin crustal fluids in backâ€arc hydrothermal fields of the Southern Mariana Trough. Environmental Microbiology, 2009, 11, 3210-3222. | 3.8 | 93 |
| 68 | Compound-Specific Nitrogen Isotope Analysis of <scp>d</scp>-Alanine, <scp>l</scp>-Alanine, and Valine: Application of Diastereomer Separation to Î´<sup>15</sup>N and Microbial Peptidoglycan Studies. Analytical Chemistry, 2009, 81, 394-399. | 6.5 | 22 |
| 69 | Synthesis of amino acid precursors from simulated interstellar media by highâ€energy particles or photons. Electronics and Communications in Japan, 2008, 91, 15-21. | 0.5 | 13 |
| 70 | Mineralogy and Isotope Geochemistry of Active Submarine Hydrothermal Field at Suiyo Seamount, Izuâ€“Bonin Arc, West Pacific Ocean. Resource Geology, 2008, 58, 220-248. | 0.8 | 35 |
| 71 | Formation of amino acid precursors with large molecular weight in dense clouds and their relevance to origins of bio-homochirality. Proceedings of the International Astronomical Union, 2008, 4, 465-472. | 0.0 | 2 |
| 72 | Asymmetric synthesis of amino acid precursors in interstellar complex organics by circularly polarized light. Earth and Planetary Science Letters, 2007, 254, 106-114. | 4.4 | 103 |

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| 73 | Phosphatase and microbial activity with biochemical indicators in semi-permafrost active layer sediments over the past 10,000 years. Applied Geochemistry, 2006, 21, 48-57. | 3.0 | 17 |
| 74 | Emergence of the inflection point on racemization rate constants for d- and l-amino acids in the early stages of terrestrial diagenesis. Organic Geochemistry, 2006, 37, 334-341. | 1.8 | 9 |
| 75 | Evidence of sub-vent biosphere: enzymatic activities in 308 Â°C deep-sea hydrothermal systems at Suiyo seamount, Izuâ€“Bonin Arc, Western Pacific Ocean. Earth and Planetary Science Letters, 2005, 229, 193-203. | 4.4 | 15 |
| 76 | Pyrolysis of complex organics following high-energy proton irradiationof a simple inorganic gas mixture. Applied Physics Letters, 2004, 85, 1633-1635. | 3.3 | 14 |
| 77 | Possible cometary organic compounds as sources of planetary biospheres. Advances in Space Research, 2004, 33, 1277-1281. | 2.6 | 18 |
| 78 | Abiotic synthesis of high-molecular-weight organics from an inorganic gas mixture of carbon monoxide, ammonia, and water by 3 MeV proton irradiation. Applied Physics Letters, 2004, 84, 1410-1412. | 3.3 | 35 |
| 79 | Amino acids in water samples from deep sea hydrothermal vents at Suiyo Seamount, Izu-Bonin Arc, Pacific Ocean. Organic Geochemistry, 2004, 35, 1121-1128. | 1.8 | 34 |
| 80 | Vertical distribution of amino acids and chiral ratios in deep sea hydrothermal sub-vents of the Suiyo Seamount, Izu-Bonin Arc, Pacific Ocean. Organic Geochemistry, 2004, 35, 1105-1120. | 1.8 | 15 |
| 81 | Amino acids in the 308Â°C deep-sea hydrothermal system of the Suiyo Seamount, Izu-Bonin Arc, Pacific Ocean. Earth and Planetary Science Letters, 2004, 219, 147-153. | 4.4 | 24 |
| 82 | Pyrolysis of High-Molecular-Weight Complex Organics Synthesized from a Simulated Interstellar Gas Mixture Irradiated with 3 MeV Proton Beam. Bulletin of the Chemical Society of Japan, 2004, 77, 779-783. | 3.2 | 20 |
| 83 | Distribution of amino acid and its stereochemistry related with biological activities in Rikubetsu, Hokkaido, Japan. Geochemical Journal, 2004, 38, 153-161. | 1.0 | 14 |
| 84 | Biological origin for amino acids in a deep subterranean hydrothermal vent, Toyoha mine, Hokkaido, Japan. Organic Geochemistry, 2003, 34, 1491-1496. | 1.8 | 17 |
| 85 | Suitable Pretreatment Method for the Determination of Amino Acids and Their D/L Ratios in Soil Samples.. Bunseki Kagaku, 2003, 52, 35-40. | 0.2 | 15 |
| 86 | Amino Acid Precursors from Carbon Monoxide in Simulated Interstellar Dust Ice Mantle by UV Irradiation at 10 K. Chemistry Letters, 2003, 32, 612-613. | 1.3 | 12 |
| 87 | Large Enantiomeric Excesses of L-Form Amino Acids in Deep-sea Hydrothermal Sub-vent of 156 Â°C Fluids at the Suiyo Seamount, Izuâ€“Bonin Arc, Pacific Ocean. Chemistry Letters, 2003, 32, 970-971. | 1.3 | 13 |
| 88 | Prebiotic Organic Microstructures. Nature Precedings, 0, , . | 0.1 | 2 |
| 89 | Origin of Deep Methane from Active Faults along the Itoigawaâ€“Shizuoka Tectonic Line between the Eurasian and North American Plates: <sup>13</sup>C/<sup>12</sup>C and <sup>14</sup>C/<sup>12</sup>C Methane Profiles from a Pull-Apart Basin at Lake Suwa. ACS Earth and Space Chemistry, 0, , . | 2.7 | 0 |