# Keisuke Koba

List of Publications by Year
in descending order



| 116 | 5,580 | 42 | 69 |
| --- | --- | --- | --- |
| papers | citations | h-index | g-index |
| | | 66315 | 91828 |

| 118 | 118 | 118 | 5910 |
| --- | --- | --- | --- |
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Ecological interpretations of nitrogen isotope ratios of terrestrial plants and soils. Plant and Soil, 2015, 396, 1-26. | 1.8 | 424 |
| 2 | Hadal biosphere: Insight into the microbial ecosystem in the deepest ocean on Earth. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E1230-6. | 3.3 | 277 |
| 3 | Natural13C and15N abundance of field-collected fungi and their ecological implications. New Phytologist, 1999, 144, 323-330. | 3.5 | 193 |
| 4 | Nitrogen deposition and forest nitrogen cycling along an urbanâ€“rural transect in southern China. Global Change Biology, 2011, 17, 872-885. | 4.2 | 182 |
| 5 | Microbial denitrification dominates nitrate losses from forest ecosystems. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1470-1474. | 3.3 | 182 |
| 6 | Higher diversity and abundance of denitrifying microorganisms in environments than considered previously. ISME Journal, 2015, 9, 1954-1965. | 4.4 | 182 |
| 7 | Intermittent denitrification: The application of a 15N natural abundance method to a forested ecosystem. Geochimica Et Cosmochimica Acta, 1997, 61, 5043-5050. | 1.6 | 133 |
| 8 | Anthropogenic imprints on nitrogen and oxygen isotopic composition of precipitation nitrate in a nitrogen-polluted city in southern China. Atmospheric Chemistry and Physics, 2011, 11, 1313-1325. | 1.9 | 129 |
| 9 | Convergence of soil nitrogen isotopes across global climate gradients. Scientific Reports, 2015, 5, 8280. | 1.6 | 127 |
| 10 | Isotopocule analysis of biologically produced nitrous oxide in various environments. Mass Spectrometry Reviews, 2017, 36, 135-160. | 2.8 | 126 |
| 11 | Characterization and production and consumption processes of N<sub>2</sub>O emitted from temperate agricultural soils determined via isotopomer ratio analysis. Global Biogeochemical Cycles, 2011, 25, n/a-n/a. | 1.9 | 123 |
| 12 | Role of nitrification and denitrification on the nitrous oxide cycle in the eastern tropical North Pacific and Gulf of California. Journal of Geophysical Research, 2007, 112, . | 3.3 | 110 |
| 13 | Nitrate is an important nitrogen source for Arctic tundra plants. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3398-3403. | 3.3 | 102 |
| 14 | High abundance of ammonia-oxidizing archaea in acidified subtropical forest soils in southern China after long-term N deposition. FEMS Microbiology Ecology, 2012, 80, 193-203. | 1.3 | 96 |
| 15 | Biogeochemistry of nitrous oxide in groundwater in a forested ecosystem elucidated by nitrous oxide isotopomer measurements. Geochimica Et Cosmochimica Acta, 2009, 73, 3115-3133. | 1.6 | 92 |
| 16 | Stable isotope analyses of precipitation nitrogen sources in Guiyang, southwestern China. Environmental Pollution, 2017, 230, 486-494. | 3.7 | 92 |
| 17 | Natural Abundance of Nitrogen-15 in a Forest Soil. Soil Science Society of America Journal, 1998, 62, 778-781. | 1.2 | 84 |
| 18 | Atmospheric deposition and leaching of nitrogen in Chinese forest ecosystems. Journal of Forest Research, 2011, 16, 341-350. | 0.7 | 81 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Natural 15 N Abundance of Plants and Soil N in a Temperate Coniferous Forest. Ecosystems, 2003, 6, 457-469. | 1.6 | 75 |
| 20 | WATER UTILIZATION OF NATURAL AND PLANTED TREES IN THE SEMIARID DESERT OF INNER MONGOLIA, CHINA. , 2003, 13, 337-351. | | 75 |
| 21 | Nitrogen Fixation in Surface Soils and Vegetation in an Arctic Tundra Watershed: A Key Source of Atmospheric Nitrogen. Arctic, Antarctic, and Alpine Research, 2006, 38, 363-372. | 0.4 | 75 |
| 22 | The natural abundance of <sup>15</sup>N in plant and soilâ€available N indicates a shift of main plant N resources to NO from NH along the N leaching gradient. Rapid Communications in Mass Spectrometry, 2010, 24, 1001-1008. | 0.7 | 69 |
| 23 | Molecular biological and isotopic biogeochemical prognoses of the nitrificationâ€driven dynamic microbial nitrogen cycle in hadopelagic sediments. Environmental Microbiology, 2013, 15, 3087-3107. | 1.8 | 68 |
| 24 | Hybrid Nitrous Oxide Production from a Partial Nitrifying Bioreactor: Hydroxylamine Interactions with Nitrite. Environmental Science & Technology, 2017, 51, 2748-2756. | 4.6 | 66 |
| 25 | Ammonium first: natural mosses prefer atmospheric ammonium but vary utilization of dissolved organic nitrogen depending on habitat and nitrogen deposition. New Phytologist, 2013, 199, 407-419. | 3.5 | 63 |
| 26 | Consequences of microbial diversity in forest nitrogen cycling: diverse ammonifiers and specialized ammonia oxidizers. ISME Journal, 2020, 14, 12-25. | 4.4 | 61 |
| 27 | Nitrogen and phosphorus enrichment and balance in forests colonized by cormorants: Implications of the influence of soil adsorption. Plant and Soil, 2005, 268, 89-101. | 1.8 | 58 |
| 28 | Nitrification and nitrifying microbial communities in forest soils. Journal of Forest Research, 2011, 16, 351-362. | 0.7 | 58 |
| 29 | Nitrogen Isotope Study on Nitrate-Contaminated Groundwater in the Sichuan Basin, China. Water, Air, and Soil Pollution, 2007, 178, 145-156. | 1.1 | 56 |
| 30 | Physiological characteristics of predominant ammonia-oxidizing bacteria enriched from bioreactors with different influent supply regimes. Biochemical Engineering Journal, 2013, 79, 153-161. | 1.8 | 56 |
| 31 | Spatial distribution of nitrate sources of rivers in the Lake Biwa watershed, Japan: Controlling factors revealed by nitrogen and oxygen isotope values. Water Resources Research, 2010, 46, . | 1.7 | 55 |
| 32 | Retention of deposited ammonium and nitrate and its impact on the global forest carbon sink. Nature Communications, 2022, 13, 880. | 5.8 | 55 |
| 33 | Episodic increases in nitrate concentrations in streamwater due to the partial dieback of a pine forest in Japan: runoff generation processes control seasonality. Hydrological Processes, 2003, 17, 237-249. | 1.1 | 54 |
| 34 | Low Î´<sup>18</sup>O Values of Nitrate Produced from Nitrification in Temperate Forest Soils. Environmental Science & Technology, 2012, 46, 8723-8730. | 4.6 | 54 |
| 35 | Isotopomeric analysis of N<sub>2</sub>O dissolved in a river in the Tokyo metropolitan area. Rapid Communications in Mass Spectrometry, 2009, 23, 809-821. | 0.7 | 53 |
| 36 | Microbial methane production in deep aquifer associated with the accretionary prism in Southwest Japan. ISME Journal, 2010, 4, 531-541. | 4.4 | 53 |

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|---|---|---|---|
| 37 | Nitrogen isotope fractionation during nitrogen transport from ectomycorrhizal fungi,<i>Suillus granulatus</i>, to the host plant,<i>Pinus densiflora</i>. Soil Science and Plant Nutrition, 2000, 46, 733-739. | 0.8 | 52 |
| 38 | Mechanism of nitrate loss from a forested catchment following a small-scale, natural disturbance. Canadian Journal of Forest Research, 2001, 31, 1326-1335. | 0.8 | 51 |
| 39 | Analytical Techniques for Quantifying 15N/14N of Nitrate, Nitrite, Total Dissolved Nitrogen and Ammonium in Environmental Samples Using a Gas Chromatograph Equipped with a Quadrupole Mass Spectrometer. Microbes and Environments, 2011, 26, 46-53. | 0.7 | 50 |
| 40 | Carbon autonomy of reproductive shoots of Siberian alder ( Alnus hirsuta var. sibirica ). Journal of Plant Research, 2003, 116, 183-188. | 1.2 | 47 |
| 41 | Immobilization of avian excreta-derived nutrients and reduced lignin decomposition in needle and twig litter in a temperate coniferous forest. Soil Biology and Biochemistry, 2006, 38, 517-525. | 4.2 | 47 |
| 42 | Isotopomer analysis of production, consumption and soil-to-atmosphere emission processes of N2O at the beginning of paddy field irrigation. Soil Biology and Biochemistry, 2014, 70, 66-78. | 4.2 | 45 |
| 43 | Hydrological influences on spatiotemporal variations of <i>Î´</i><sup>15</sup>N and <i>Î´</i><sup>18</sup>O of nitrate in a forested headwater catchment in central Japan: Denitrification plays a critical role in groundwater. Journal of Geophysical Research, 2010, 115, . | 3.3 | 44 |
| 44 | Physiological and isotopic characteristics of nitrogen fixation by hyperthermophilic methanogens: Key insights into nitrogen anabolism of the microbial communities in Archean hydrothermal systems. Geochimica Et Cosmochimica Acta, 2014, 138, 117-135. | 1.6 | 44 |
| 45 | Drivers of atmospheric nitrate processing and export in forested catchments. Water Resources Research, 2015, 51, 1333-1352. | 1.7 | 44 |
| 46 | Gross nitrification rates in four Japanese forest soils: heterotrophic versus autotrophic and the regulation factors for the nitrification. Journal of Forest Research, 2011, 16, 363-373. | 0.7 | 43 |
| 47 | Abundance, diversity, and species composition of fungal communities in a temperate forest affected by excreta of the Great Cormorant Phalacrocorax carbo. Soil Biology and Biochemistry, 2002, 34, 1537-1547. | 4.2 | 41 |
| 48 | Î´<sup>15</sup>N of soil N and plants in a Nâ€saturated, subtropical forest of southern China. Rapid Communications in Mass Spectrometry, 2010, 24, 2499-2506. | 0.7 | 39 |
| 49 | A simple and rapid GC/MS method for the simultaneous determination of gaseous metabolites. Journal of Microbiological Methods, 2011, 84, 46-51. | 0.7 | 39 |
| 50 | The <sup>15</sup>N natural abundance of the N lost from an Nâ€saturated subtropical forest in southern China. Journal of Geophysical Research, 2012, 117, . | 3.3 | 39 |
| 51 | Isotopomeric characterization of nitrous oxide produced by reaction of enzymes extracted from nitrifying and denitrifying bacteria. Biogeosciences, 2014, 11, 2679-2689. | 1.3 | 39 |
| 52 | Methane flux characteristics in forest soils under an East Asian monsoon climate. Soil Biology and Biochemistry, 2009, 41, 388-395. | 4.2 | 37 |
| 53 | Title is missing!. Water, Air, and Soil Pollution, 2001, 130, 679-684. | 1.1 | 33 |
| 54 | Reduction of fungal growth and lignin decomposition in needle litter by avian excreta. Soil Biology and Biochemistry, 2006, 38, 1623-1630. | 4.2 | 33 |

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| 55 | Pattern of natural 15N abundance in lakeside forest ecosystem affected by cormorant-derived nitrogen. Hydrobiologia, 2006, 567, 69-86. | 1.0 | 32 |
| 56 | Changes in nitrogen transformation in forest soil representing the climate gradient of the Japanese archipelago. Journal of Forest Research, 2011, 16, 374-385. | 0.7 | 32 |
| 57 | Nitrate dynamics in natural plants: insights based on the concentration and natural isotope abundances of tissue nitrate. Frontiers in Plant Science, 2014, 5, 355. | 1.7 | 32 |
| 58 | Variations in nitrogen-15 natural abundance of plant and soil systems in four remote tropical rainforests, southern China. Oecologia, 2014, 174, 567-580. | 0.9 | 32 |
| 59 | Uptake Patterns of Glycine, Ammonium, and Nitrate Differ Among Four Common Tree Species of Northeast China. Frontiers in Plant Science, 2019, 10, 799. | 1.7 | 32 |
| 60 | Nitrogen and Oxygen Isotope Effects of Ammonia Oxidation by Thermophilic Thaumarchaeota from a Geothermal Water Stream. Applied and Environmental Microbiology, 2016, 82, 4492-4504. | 1.4 | 31 |
| 61 | Seasonal change in microbial sulfur cycling in monomictic Lake Fukamiâ€ike, Japan. Limnology and Oceanography, 2012, 57, 974-988. | 1.6 | 30 |
| 62 | Strong inhibitory effect of nitrate on atmospheric methane oxidation in forest soils. Soil Biology and Biochemistry, 2012, 50, 164-166. | 4.2 | 30 |
| 63 | Highly abundant acidophilic ammonia-oxidizing archaea causes high rates of nitrification and nitrate leaching in nitrogen-saturated forest soils. Soil Biology and Biochemistry, 2018, 122, 220-227. | 4.2 | 29 |
| 64 | Pitfalls and New Mechanisms in Moss Isotope Biomonitoring of Atmospheric Nitrogen Deposition. Environmental Science & Technology, 2012, 46, 12557-12566. | 4.6 | 27 |
| 65 | Nitrite transformations in an N-saturated forest soil. Soil Biology and Biochemistry, 2012, 52, 61-63. | 4.2 | 27 |
| 66 | Differential N<sub>2</sub> O dynamics in two oxygen-deficient lake basins revealed by stable isotope and isotopomer distributions. Limnology and Oceanography, 2016, 61, 1735-1749. | 1.6 | 26 |
| 67 | Mature conifers assimilate nitrate as efficiently as ammonium from soils in four forest plantations. New Phytologist, 2021, 229, 3184-3194. | 3.5 | 26 |
| 68 | Biogeochemistry of nitrous oxide in Lake Kizaki, Japan, elucidated by nitrous oxide isotopomer analysis. Journal of Geophysical Research, 2011, 116, . | 3.3 | 25 |
| 69 | High nitrogen isotope fractionation of nitrate during denitrification in four forest soils and its implications for denitrification rate estimates. Science of the Total Environment, 2018, 633, 1078-1088. | 3.9 | 25 |
| 70 | Multiyear Measurements on Î”<sup>17</sup>O of Stream Nitrate Indicate High Nitrate Production in a Temperate Forest. Environmental Science & Technology, 2020, 54, 4231-4239. | 4.6 | 25 |
| 71 | An internal recycling mechanism between ammonia/ammonium and nitrate driven by ammonia-oxidizing archaea and bacteria (AOA, AOB, and Comammox) and DNRA on Angkor sandstone monuments. International Biodeterioration and Biodegradation, 2021, 165, 105328. | 1.9 | 24 |
| 72 | Hydrologic controls on nitrous oxide production and consumption in a forested headwater catchment in central Japan. Journal of Geophysical Research, 2006, 111, . | 3.3 | 23 |

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| 73 | Hydrologic effects on methane dynamics in riparian wetlands in a temperate forest catchment. Journal of Geophysical Research, 2007, 112, . | 3.3 | 23 |
| 74 | Nitrification-driven forms of nitrogen metabolism in microbial mat communities thriving along an ammonium-enriched subsurface geothermal stream. Geochimica Et Cosmochimica Acta, 2013, 113, 152-173. | 1.6 | 23 |
| 75 | Dynamics of the internal soil nitrogen cycles under moder and mull forest floor types on a slope in a Cryptomeria japonica D. Don plantation. Ecological Research, 2003, 18, 53-64. | 0.7 | 22 |
| 76 | Topographical Differences in Soil N Transformation Using<sup>15</sup>N Dilution Method along a Slope in a Conifer Plantation Forest in Japan. Journal of Forest Research, 2000, 5, 13-19. | 0.7 | 21 |
| 77 | A Novel Pyrroloquinoline Quinone-Dependent 2-Keto- <scp>d</scp> -Glucose Dehydrogenase from Pseudomonas aureofaciens. Journal of Bacteriology, 2015, 197, 1322-1329. | 1.0 | 21 |
| 78 | Contribution of atmospheric nitrate to streamâ€water nitrate in Japanese coniferous forests revealed by the oxygen isotope ratio of nitrate. Rapid Communications in Mass Spectrometry, 2010, 24, 1281-1286. | 0.7 | 20 |
| 79 | Patterns of foliar Î´<sup>15</sup>N and their control in Eastern Asian forests. Ecological Research, 2013, 28, 735-748. | 0.7 | 20 |
| 80 | Preliminary insights into Î´15N and Î´18O of nitrate in natural mosses: A new application of the denitrifier method. Environmental Pollution, 2012, 162, 48-55. | 3.7 | 19 |
| 81 | N2O production by denitrification in an urban river: evidence from isotopes, functional genes, and dissolved organic matter. Limnology, 2018, 19, 115-126. | 0.8 | 19 |
| 82 | Relationships Among pH, Minerals, and Carbon in Soils from Tundra to Boreal Forest Across Alaska. Ecosystems, 2016, 19, 1092-1103. | 1.6 | 17 |
| 83 | Biomass production and energy source of thermophiles in a Japanese alkaline geothermal pool. Environmental Microbiology, 2010, 12, 480-489. | 1.8 | 16 |
| 84 | Variation in leaf and soil Î´15N in diverse tree species in a lowland dipterocarp rainforest, Malaysia. Trees - Structure and Function, 2016, 30, 509-522. | 0.9 | 15 |
| 85 | Possible Mechanisms Leading to a Delay in Carbon Stock Recovery after Land Use Change. Soil Science Society of America Journal, 2007, 71, 1636-1638. | 1.2 | 14 |
| 86 | Analysis of methane production pathways in a riparian wetland of a temperate forest catchment, using <i>Î´</i><sup>13</sup>C of pore water CH<sub>4</sub> and CO<sub>2</sub>. Journal of Geophysical Research, 2008, 113, . | 3.3 | 14 |
| 87 | Hydrogen and carbon isotope fractionation by thermophilic hydrogenotrophic methanogens from a deep aquifer under coculture with fermenters. Geochemical Journal, 2012, 46, 193-200. | 0.5 | 14 |
| 88 | Heterogeneous Atmospheric Nitrogen Deposition Effects Upon the Nitrate Concentration of Stream Waters in a Forested Mountain Area. Water, Air, and Soil Pollution, 2011, 216, 105-115. | 1.1 | 12 |
| 89 | Dual N and O isotopes of nitrate in natural plants: first insights into individual variability and organ-specific patterns. Biogeochemistry, 2013, 114, 399-411. | 1.7 | 12 |
| 90 | Temporal and spatial variability of Methane flux in a temperate forest watershed. Suimon Mizu Shigen Gakkaishi, 2005, 18, 244-256. | 0.1 | 11 |

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| 91 | Virtual forest: design and evaluation of a walk-through system for forest education. Journal of Forest Research, 2005, 10, 189-197. | 0.7 | 10 |
| 92 | Nitrogen and oxygen isotope effects of tissue nitrate associated with nitrate acquisition and utilisation in the moss Hypnum plumaeforme. Functional Plant Biology, 2012, 39, 598. | 1.1 | 10 |
| 93 | Revisiting the involvement of ammonia oxidizers and denitrifiers in nitrous oxide emission from cropland soils. Environmental Pollution, 2021, 287, 117494. | 3.7 | 10 |
| 94 | Use of foliar 15 N and 13 C abundance to evaluate effects of microbiotic crust on nitrogen and water utilization in Pinus massoniana in deteriorated pine stands of south China. Ecological Research, 2003, 18, 279-286. | 0.7 | 8 |
| 95 | Development and evaluation of a support system for forest education. Journal of Forest Research, 2005, 10, 43-50. | 0.7 | 7 |
| 96 | Geochemical Influences on Solubility of Soil Organic Carbon in Arctic Tundra Ecosystems. Soil Science Society of America Journal, 2013, 77, 473-481. | 1.2 | 7 |
| 97 | Seasonal changes and controlling factors of gross N transformation in an evergreen plantation forest in central Japan. Journal of Forest Research, 2014, 19, 77-85. | 0.7 | 7 |
| 98 | Pattern of natural 15N abundance in lakeside forest ecosystem affected by cormorant-derived nitrogen. , 2006, , 69-86. |  | 7 |
| 99 | Nitrogen and Oxygen Isotope Signatures of Nitrogen Compounds during Anammox in the Laboratory and a Wastewater Treatment Plant. Microbes and Environments, 2020, 35, n/a. | 0.7 | 7 |
| 100 | Natural <scp><sup>15</sup>N</scp> abundance of ammonium and nitrate in soil profiles: New insights into forest ecosystem nitrogen saturation. Ecosphere, 2022, 13, . | 1.0 | 7 |
| 101 | Nitrogen source utilization in co-existing canopy tree and dwarf bamboo in a northern hardwood forest in Japan. Trees - Structure and Function, 2020, 34, 1047-1057. | 0.9 | 6 |
| 102 | Arbuscular Mycorrhizal Community in Roots and Nitrogen Uptake Patterns of Understory Trees Beneath Ectomycorrhizal and Non-ectomycorrhizal Overstory Trees. Frontiers in Plant Science, 2020, 11, 583585. | 1.7 | 6 |
| 103 | Abundances of 13C and 15N in Natural Ecosystems.. Radioisotopes, 1997, 46, 632-644. | 0.1 | 6 |
| 104 | Vertical distributions of stable isotopic compositions and bacteriochlorophyll homologues in suspended particulate matter in saline meromictic Lake Abashiri. Limnology, 2004, 5, 185-189. | 0.8 | 5 |
| 105 | Nitrate-use traits of understory plants as potential regulators of vegetation distribution on a slope in a Japanese cedar plantation. Plant and Soil, 2013, 362, 119-134. | 1.8 | 5 |
| 106 | Influence of<i>Î´</i><sup>18</sup>O of water on measurements of<i>Î´</i><sup>18</sup>O of nitrite and nitrate. Rapid Communications in Mass Spectrometry, 2021, 35, e8979. | 0.7 | 5 |
| 107 | Different leaf carbon, nitrogen, and phosphorus stoichiometry and carbon and nitrogen isotopes among peatland plants in northeastern China. Plant and Soil, 2021, 467, 345. | 1.8 | 5 |
| 108 | The Potential of NO3--N Utilization by a Woody Shrub Species Lindera triloba: A Cultivation Test to Estimate the Saturation Point of Soil NO3â€“-N for Plants. Scientific World Journal, The, 2001, 1, 514-519. | 0.8 | 4 |

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| 109 | Control of the Nitrogen Isotope Composition of the Fungal Biomass: Evidence of Microbial Nitrogen Use Efficiency. Microbes and Environments, 2019, 34, 5-12. | 0.7 | 4 |
| 110 | Changes in stable nitrogen isotopes of plants, bulk soil and soil dissolved N during ecosystem retrogression in boreal forest. Ecological Research, 2021, 36, 420-429. | 0.7 | 4 |
| 111 | Isotopic Elucidation of Microbial Nitrogen Transformations in Forest Soils. Global Biogeochemical Cycles, 2021, 35, . | 1.9 | 4 |
| 112 | A Nonâ€steady State Model Based on Dual Nitrogen and Oxygen Isotopes to Constrain Moss Nitrate Uptake and Reduction. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005498. | 1.3 | 3 |
| 113 | Intraspecific differences in the invasion success of the Argentine ant Linepithema humile Mayr are associated with diet breadth. Scientific Reports, 2021, 11, 2874. | 1.6 | 3 |
| 114 | Studies on Nitrogen Dynamics in Lotic Ecosystems Using Stable Isotope Techniques. Suimon Mizu Shigen Gakkaishi, 2006, 19, 293-301. | 0.1 | 2 |
| 115 | Soil nitrogen dynamics of forest ecosystems under environmental changes. Journal of Forest Research, 2011, 16, 331-332. | 0.7 | 1 |
| 116 | The Use of Natural Abundance of Nitrogen Isotopes in the Studies on Nitrogen Cycle in Forest Ecosystem.. Radioisotopes, 1995, 44, 765-766. | 0.1 | 0 |