# Ko Noguchi

List of Publications by Year
in descending order



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|---|---|---|---|
| 101 papers | 5,303 citations | 61857 43 h-index | 91712 69 g-index |
| 104 all docs | 104 docs citations | 104 times ranked | 5217 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Interaction between photosynthesis and respiration in illuminated leaves. Mitochondrion, 2008, 8, 87-99. | 1.6 | 279 |
| 2 | Temperature acclimation of photosynthesis in spinach leaves: analyses of photosynthetic components and temperature dependencies of photosynthetic partial reactions. Plant, Cell and Environment, 2005, 28, 536-547. | 2.8 | 212 |
| 3 | Roles of the Cyclic Electron Flow Around PSI (CEF-PSI) and O2-Dependent Alternative Pathways in Regulation of the Photosynthetic Electron Flow in Short-Term Fluctuating Light in Arabidopsis thaliana. Plant and Cell Physiology, 2014, 55, 990-1004. | 1.5 | 204 |
| 4 | Up-Regulation of Mitochondrial Alternative Oxidase Concomitant with Chloroplast Over-Reduction by Excess Light. Plant and Cell Physiology, 2007, 48, 606-614. | 1.5 | 191 |
| 5 | Effects of Rubisco kinetics and Rubisco activation state on the temperature dependence of the photosynthetic rate in spinach leaves from contrasting growth temperatures. Plant, Cell and Environment, 2006, 29, 1659-1670. | 2.8 | 189 |
| 6 | Overexpression of plasma membrane H <sup>+</sup> -ATPase in guard cells promotes light-induced stomatal opening and enhances plant growth. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 533-538. | 3.3 | 179 |
| 7 | Phenotypic Plasticity in Photosynthetic Temperature Acclimation among Crop Species with Different Cold Tolerances Â Â. Plant Physiology, 2009, 152, 388-399. | 2.3 | 155 |
| 8 | Nitrate Addition Alleviates Ammonium Toxicity Without Lessening Ammonium Accumulation, Organic Acid Depletion and Inorganic Cation Depletion in Arabidopsis thaliana Shoots. Plant and Cell Physiology, 2012, 53, 577-591. | 1.5 | 151 |
| 9 | Effects of Internal Conductance on the Temperature Dependence of the Photosynthetic Rate in Spinach Leaves from Contrasting Growth Temperatures. Plant and Cell Physiology, 2006, 47, 1069-1080. | 1.5 | 145 |
| 10 | The chloroplast avoidance response decreases internal conductance to CO<sub>2</sub> diffusion in Arabidopsis thaliana leaves. Plant, Cell and Environment, 2008, 31, 1688-1700. | 2.8 | 144 |
| 11 | The rice nuclear gene, VIRESCENT 2, is essential for chloroplast development and encodes a novel type of guanylate kinase targeted to plastids and mitochondria. Plant Journal, 2007, 52, 512-527. | 2.8 | 126 |
| 12 | The lack of alternative oxidase at low temperature leads to a disruption of the balance in carbon and nitrogen metabolism, and to an upâ€•regulation of antioxidant defence systems in Arabidopsis thaliana leaves. Plant, Cell and Environment, 2008, 31, 1190-1202. | 2.8 | 123 |
| 13 | Distinct Roles of the Cytochrome Pathway and Alternative Oxidase in Leaf Photosynthesis. Plant and Cell Physiology, 2006, 47, 22-31. | 1.5 | 112 |
| 14 | Systematic Exploration of Thioredoxin Target Proteins in Plant Mitochondria. Plant and Cell Physiology, 2013, 54, 875-892. | 1.5 | 111 |
| 15 | Effects of Carbohydrate Accumulation on Photosynthesis Differ between Sink and Source Leaves of Phaseolus vulgaris L.. Plant and Cell Physiology, 2006, 47, 644-652. | 1.5 | 96 |
| 16 | Photosynthesis of Root Chloroplasts Developed in Arabidopsis Lines Overexpressing GOLDEN2-LIKE Transcription Factors. Plant and Cell Physiology, 2013, 54, 1365-1377. | 1.5 | 94 |
| 17 | Differential Gene Expression Profiles of the Mitochondrial Respiratory Components in Illuminated Arabidopsis Leaves. Plant and Cell Physiology, 2009, 50, 1449-1462. | 1.5 | 91 |
| 18 | Cold-Tolerant Crop Species Have Greater Temperature Homeostasis of Leaf Respiration and Photosynthesis Than Cold-Sensitive Species. Plant and Cell Physiology, 2009, 50, 203-215. | 1.5 | 88 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Rice MPR25 encodes a pentatricopeptide repeat protein and is essential for RNA editing of nad5 transcripts in mitochondria. Plant Journal, 2012, 72, 450-460. | 2.8 | 86 |
| 20 | The cause of PSI photoinhibition at low temperatures in leaves of Cucumis sativus , a chilling-sensitive plant. Physiologia Plantarum, 1998, 103, 295-303. | 2.6 | 81 |
| 21 | Response of mitochondria to light intensity in the leaves of sun and shade species. Plant, Cell and Environment, 2005, 28, 760-771. | 2.8 | 79 |
| 22 | Apoplastic mesophyll signals induce rapid stomatal responses to <scp>CO</scp><sub>2</sub> in <scp>C</scp>ommelina communis. New Phytologist, 2013, 199, 395-406. | 3.5 | 77 |
| 23 | Effects of growth light and nitrogen nutrition on the organization of the photosynthetic apparatus in leaves of a C4 plant, Amaranthus cruentus. Plant, Cell and Environment, 2006, 29, 691-700. | 2.8 | 76 |
| 24 | Effects of Elevated CO2 on Levels of Primary Metabolites and Transcripts of Genes Encoding Respiratory Enzymes and Their Diurnal Patterns in Arabidopsis thaliana: Possible Relationships with Respiratory Rates. Plant and Cell Physiology, 2014, 55, 341-357. | 1.5 | 75 |
| 25 | Responses of spinach leaf mitochondria to low N availability. Plant, Cell and Environment, 2006, 29, 710-719. | 2.8 | 68 |
| 26 | Relationships Between Quantum Yield for CO2 Assimilation, Activity of Key Enzymes and CO2 Leakiness in Amaranthus cruentus, a C4 Dicot, Grown in High or Low Light. Plant and Cell Physiology, 2008, 49, 19-29. | 1.5 | 68 |
| 27 | High CO2 Triggers Preferential Root Growth of Arabidopsis thaliana Via Two Distinct Systems Under Low pH and Low N Stresses. Plant and Cell Physiology, 2014, 55, 269-280. | 1.5 | 68 |
| 28 | Effect of respiratory homeostasis on plant growth in cultivars of wheat and rice. Plant, Cell and Environment, 2004, 27, 853-862. | 2.8 | 67 |
| 29 | Influence of Chloroplastic Photo-Oxidative Stress on Mitochondrial Alternative Oxidase Capacity and Respiratory Properties: A Case Study with Arabidopsis yellow variegated 2. Plant and Cell Physiology, 2008, 49, 592-603. | 1.5 | 66 |
| 30 | Distinct responses of the mitochondrial respiratory chain to longâ€•and shortâ€term highâ€light environments in Arabidopsis thaliana. Plant, Cell and Environment, 2011, 34, 618-628. | 2.8 | 65 |
| 31 | Effects of polyploidy on photosynthetic properties and anatomy in leaves of Phlox drummondii. Functional Plant Biology, 2007, 34, 673. | 1.1 | 63 |
| 32 | Distinct light responses of the adaxial and abaxial stomata in intact leaves of Helianthus annuus L.. Plant, Cell and Environment, 2008, 31, 1307-1316. | 2.8 | 60 |
| 33 | Different regulation of leaf respiration between Spinacia oleracea, a sun species, and Alocasia odora, a shade species. Physiologia Plantarum, 1997, 101, 1-7. | 2.6 | 57 |
| 34 | The Role of Electron Transport in Determining the Temperature Dependence of the Photosynthetic Rate in Spinach Leaves Grown at Contrasting Temperatures. Plant and Cell Physiology, 2008, 49, 583-591. | 1.5 | 56 |
| 35 | Mesophyll conductance decreases in the wild type but not in an <scp>ABA</scp>â€deficient mutant (<scp>aba1</scp>) of <scp>N</scp>icotiana plumbaginifolia under drought conditions. Plant, Cell and Environment, 2015, 38, 388-398. | 2.8 | 55 |
| 36 | Effects of AOX1a Deficiency on Plant Growth, Gene Expression of Respiratory Components and Metabolic Profile Under Low-Nitrogen Stress in Arabidopsis thaliana. Plant and Cell Physiology, 2010, 51, 810-822. | 1.5 | 53 |

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|---|---|---|---|
| 37 | Physiological impact of mitochondrial alternative oxidase on photosynthesis and growth in Arabidopsis thaliana. Plant, Cell and Environment, 2011, 34, 1890-1899. | 2.8 | 53 |
| 38 | NDH-Mediated Cyclic Electron Flow Around Photosystem I is Crucial for C<sub>4</sub>Photosynthesis. Plant and Cell Physiology, 2016, 57, 2020-2028. | 1.5 | 53 |
| 39 | Photosynthesis-Dependent and -Independent Responses of Stomata to Blue, Red and Green Monochromatic Light: Differences Between the Normally Oriented and Inverted Leaves of Sunflower. Plant and Cell Physiology, 2011, 52, 479-489. | 1.5 | 52 |
| 40 | Evidence for a nitrate-independent function of the nitrate sensor NRT1.1 in Arabidopsis thaliana. Journal of Plant Research, 2011, 124, 425-430. | 1.2 | 51 |
| 41 | Acclimation of Respiratory Properties of Leaves of Spinacia oleracea L., a Sun Species, and of Alocasia macrorrhiza (L.) G. Don., a Shade Species, to Changes in Growth Irradiance. Plant and Cell Physiology, 1996, 37, 377-384. | 1.5 | 50 |
| 42 | Acclimation of leaf respiratory properties in Alocasia odora following reciprocal transfers of plants between high- and low-light environments. Plant, Cell and Environment, 2001, 24, 831-839. | 2.8 | 50 |
| 43 | Increase in respiratory cost at high growth temperature is attributed to high protein turnover cost in Petuniaï¿½×hybrida petals. Plant, Cell and Environment, 2007, 30, 1269-1283. | 2.8 | 50 |
| 44 | Ammoniumâ€dependent respiratory increase is dependent on the cytochrome pathway in Arabidopsis thaliana shoots. Plant, Cell and Environment, 2010, 33, 1888-1897. | 2.8 | 47 |
| 45 | Effect of nitrogen nutrition on the carbohydrate repression of photosynthesis in leaves of Phaseolus vulgaris L.. Journal of Plant Research, 2010, 123, 371-379. | 1.2 | 46 |
| 46 | Maintenance of Growth Rate at Low Temperature in Rice and Wheat Cultivars with a High Degree of Respiratory Homeostasis is Associated with a High Efficiency of Respiratory ATP Production. Plant and Cell Physiology, 2004, 45, 1015-1022. | 1.5 | 45 |
| 47 | Mitochondrial Alternative Pathway-Associated Photoprotection of Photosystem II is Related to the Photorespiratory Pathway. Plant and Cell Physiology, 2016, 57, pcw036. | 1.5 | 40 |
| 48 | Tolerant mechanisms to O2 deficiency under submergence conditions in plants. Journal of Plant Research, 2020, 133, 343-371. | 1.2 | 40 |
| 49 | Simultaneous Determination of In Vivo Plastoquinone and Ubiquinone Redox States by HPLC-Based Analysis. Plant and Cell Physiology, 2010, 51, 836-841. | 1.5 | 39 |
| 50 | Two CLE genes are induced by phosphate in roots of Lotus japonicus. Journal of Plant Research, 2011, 124, 155-163. | 1.2 | 39 |
| 51 | Cost and benefit of the repair of photodamaged photosystem II in spinach leaves: roles of acclimation to growth light. Photosynthesis Research, 2012, 113, 165-180. | 1.6 | 38 |
| 52 | Optimum leaf size predicted by a novel leaf energy balance model incorporating dependencies of photosynthesis on light and temperature. Ecological Research, 2012, 27, 333-346. | 0.7 | 37 |
| 53 | Phosphorus toxicity disrupts Rubisco activation and reactive oxygen species defence systems by phytic acid accumulation in leaves. Plant, Cell and Environment, 2020, 43, 2033-2053. | 2.8 | 32 |
| 54 | Manipulation of light and CO<sub>2</sub> environments of the primary leaves of bean (Phaseolus) Tj ETQq0 0 0 rgBT /Overlock 10 T of systemic regulation. Plant, Cell and Environment, 2008, 31, 50-61. | 2.8 | 30 |

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|---|---|---|---|
| 55 | Homeostasis of the temperature sensitivity of respiration over a range of growth temperatures indicated by a modified Arrhenius model. New Phytologist, 2015, 207, 34-42. | 3.5 | 27 |
| 56 | Comparison of the response to phosphorus deficiency in two lupin species, <scp>L</scp>upinus albus and <scp>L</scp>.â€‰angustifolius, with contrasting root morphology. Plant, Cell and Environment, 2015, 38, 399-410. | 2.8 | 27 |
| 57 | Integrative response of plant mitochondrial electron transport chain to nitrogen source. Plant Cell Reports, 2011, 30, 195-204. | 2.8 | 26 |
| 58 | Effects of Elevated Atmospheric CO<sub>2</sub>on Primary Metabolite Levels inArabidopsis thalianaCol-0 Leaves: An Examination of Metabolome Data. Plant and Cell Physiology, 2015, 56, pcv125. | 1.5 | 26 |
| 59 | Maintenance mechanisms of the pipe model relationship and Leonardo da Vinciâ€™s rule in the branching architecture of Acer rufinerve trees. Journal of Plant Research, 2009, 122, 41-52. | 1.2 | 24 |
| 60 | How and why does mitochondrial respiratory chain respond to light?. Plant Signaling and Behavior, 2011, 6, 864-866. | 1.2 | 24 |
| 61 | Effects of instantaneous and growth CO 2 levels and abscisic acid on stomatal and mesophyll conductances. Plant, Cell and Environment, 2019, 42, 1257-1269. | 2.8 | 23 |
| 62 | Effects of Light Intensity and Carbohydrate Status on Leaf and Root Respiration. , 2005, , 63-83. | | 21 |
| 63 | Mitochondrial AOX Supports Redox Balance of Photosynthetic Electron Transport, Primary Metabolite Balance, and Growth in Arabidopsis thaliana under High Light. International Journal of Molecular Sciences, 2019, 20, 3067. | 1.8 | 21 |
| 64 | The Mitochondrial Respiratory Chain Maintains the Photosynthetic Electron Flow in Arabidopsis thaliana Leaves under High-Light Stress. Plant and Cell Physiology, 2020, 61, 283-295. | 1.5 | 21 |
| 65 | Costs of protein turnover and carbohydrate export in leaves of sun and shade species. Functional Plant Biology, 2001, 28, 37. | 1.1 | 20 |
| 66 | Activities of the cyanide-resistant respiratory pathway in leaves of sun and shade species. Functional Plant Biology, 2001, 28, 27. | 1.1 | 20 |
| 67 | Impaired Cyclic Electron Flow around Photosystem I Disturbs High-Light Respiratory Metabolism. Plant Physiology, 2016, 172, 2176-2189. | 2.3 | 20 |
| 68 | Dependency of branch diameter growth in young Acer trees on light availability and shoot elongation. Tree Physiology, 2005, 25, 39-48. | 1.4 | 18 |
| 69 | Modeling Leaf Gas Exchange. Advances in Photosynthesis and Respiration, 2016, , 61-100. | 1.0 | 17 |
| 70 | Confirmation of mesophyll signals controlling stomatal responses by a newly devised transplanting method. Functional Plant Biology, 2019, 46, 467. | 1.1 | 17 |
| 71 | Mutation of NRT1.1 enhances ammonium/low pH-tolerance in Arabiopsis thaliana. Plant Signaling and Behavior, 2011, 6, 706-708. | 1.2 | 16 |
| 72 | Influence of a Modified Atmosphere on the Induction and Activity of Respiratory Enzymes in Broccoli Florets during the Early Stage of Postharvest Storage. Journal of Agricultural and Food Chemistry, 2017, 65, 8538-8543. | 2.4 | 16 |

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|---|---|---|---|
| 73 | Effects of Elevated Atmospheric CO2 on Respiratory Rates in Mature Leaves of Two Rice Cultivars Grown at a Free-Air CO2 Enrichment Site and Analyses of the Underlying Mechanisms. Plant and Cell Physiology, 2018, 59, 637-649. | 1.5 | 16 |
| 74 | P700 oxidation suppresses the production of reactive oxygen species in photosystem I. Advances in Botanical Research, 2020, 96, 151-176. | 0.5 | 15 |
| 75 | Local Anesthetics and Antipsychotic Phenothiazines Interact Nonspecifically with Membranes and Inhibit Hexose Transporters in Yeast. Genetics, 2016, 202, 997-1012. | 1.2 | 14 |
| 76 | Interaction Between Chloroplasts and Mitochondria: Activity, Function, and Regulation of the Mitochondrial Respiratory System during Photosynthesis. , 2011, , 383-409. | | 13 |
| 77 | Oxalate contents in leaves of two rice cultivars grown at a free-air CO<sub>2</sub>enrichment (FACE) site. Plant Production Science, 2019, 22, 407-411. | 0.9 | 13 |
| 78 | Photochemistry of Photosystems II and I in Rice Plants Grown under Different N Levels at Normal and High Temperature. Plant and Cell Physiology, 2021, 62, 1121-1130. | 1.5 | 13 |
| 79 | Mechanical and ecophysiological significance of the form of a young Acer rufinerve tree: vertical gradient in branch mechanical properties. Tree Physiology, 2006, 26, 1549-1558. | 1.4 | 12 |
| 80 | Effects of root morphology, respiration and carboxylate exudation on carbon economy in two nonâ€mycorrhizal lupines under phosphorus deficiency. Plant, Cell and Environment, 2021, 44, 598-612. | 2.8 | 12 |
| 81 | Effect of growth temperature and total nonâ€structural carbohydrate accumulation on growth coefficient in Petuniaâ€ƒÃ—â€ƒhybrida petals. Physiologia Plantarum, 2008, 134, 293-302. | 2.6 | 11 |
| 82 | Inhibition of mitochondrial complex I by the novel compound FSL0260 enhances high salinity-stress tolerance in Arabidopsis thaliana. Scientific Reports, 2020, 10, 8691. | 1.6 | 11 |
| 83 | Temperature-dependent fasciation mutants provide a link between mitochondrial RNA processing and lateral root morphogenesis. ELife, 2021, 10, . | 2.8 | 11 |
| 84 | Arabidopsis Phosphatidic Acid Phosphohydrolases Are Essential for Growth under Nitrogen-Depleted Conditions. Frontiers in Plant Science, 2017, 8, 1847. | 1.7 | 10 |
| 85 | Distinct responses of growth and respiration to growth temperatures in two mangrove species. Annals of Botany, 2022, 129, 15-28. | 1.4 | 9 |
| 86 | Theoretical analysis of a temperatureâ€dependent model of respiratory O<sub>2</sub> consumption using the kinetics of the cytochrome and alternative pathways. New Phytologist, 2021, 229, 1810-1821. | 3.5 | 8 |
| 87 | Patterns of photoassimilate translocation to reproductive shoots from adjacent shoots in Camellia sasanqua by manipulation of sink-source balance between the shoots. Journal of Plant Research, 2011, 124, 131-136. | 1.2 | 7 |
| 88 | Functional linkage between N acquisition strategies and aeration capacities of hydrophytes for efficient oxygen consumption in roots. Physiologia Plantarum, 2013, 147, 135-146. | 2.6 | 7 |
| 89 | Tetracaine, a local anesthetic, preferentially induces translational inhibition with processing body formation rather than phosphorylation of eIF2Î± in yeast. Current Genetics, 2015, 61, 43-53. | 0.8 | 6 |
| 90 | Manganese toxicity disrupts indole acetic acid homeostasis and suppresses the CO2 assimilation reaction in rice leaves. Scientific Reports, 2021, 11, 20922. | 1.6 | 6 |

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|---|---|---|---|
| 91 | Rare Neurologic Disease-Associated Mutations of AIMP1 Are Related with Inhibitory Neuronal Differentiation Which Is Reversed by Ibuprofen. Medicines (Basel, Switzerland), 2020, 7, 25. | 0.7 | 5 |
| 92 | Different regulation of leaf respiration between Spinacia oleracea, a sun species, and Alocasia odora, a shade species. Physiologia Plantarum, 1997, 101, 1-7. | 2.6 | 5 |
| 93 | Induction of Terminal Oxidases of Electron Transport Chain in Broccoli Heads under Controlled Atmosphere Storage. Foods, 2020, 9, 380. | 1.9 | 4 |
| 94 | Atmospheric CO2 Concentration and N Availability Affect the Balance of the Two Photosystems in Mature Leaves of Rice Plants Grown at a Free-Air CO2 Enrichment Site. Frontiers in Plant Science, 2020, 11, 786. | 1.7 | 3 |
| 95 | Differential Analyses of the Effects of the Light Environment on Development of Deciduous Trees: Basic Studies for Tree Growth Modeling. Ecological Studies, 2002, , 187-200. | 0.4 | 2 |
| 96 | Growth temperature affects O 2 consumption rates and plasticity of respiratory flux to support shoot growth at various growth temperatures. Plant, Cell and Environment, 2021, , . | 2.8 | 2 |
| 97 | Low N level increases the susceptibility of <scp>PSI</scp> to photoinhibition induced by short repetitive flashes in leaves of different rice varieties. Physiologia Plantarum, 2022, 174, e13644. | 2.6 | 2 |
| 98 | Phosphorus toxicity disrupts Rubisco activation and reactive oxygen species defence systems by phytic acid accumulation in leaves. Plant, Cell and Environment, 2020, 43, i. | 2.8 | 0 |
| 99 | Editorial: O2 and ROS Metabolisms in Photosynthetic Organisms. Frontiers in Plant Science, 2020, 11, 618550. | 1.7 | 0 |
| 100 | Functional Analysis of Mitochondrial Respiratory Chain as a Dissipation System of Excess Light Energy. , 2008, , 1071-1074. | | 0 |
| 101 | Light Dependences Of The Co2 Leakiness, Quantum Yield Of Co2 Fixation And Activation State Of Key Enzymes In A C4 Plant, Amaranthus Cruentus, Grown In High- And Low-Light. , 2008, , 841-844. | | 0 |