

# Toshihiko Nakata

## List of Publications by Year in descending order

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116  
papers

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docs citations

116  
times ranked

2130  
citing authors

#	ARTICLE	IF	CITATIONS
1	Introduction on mobile hybrid systems: Motivations, environmental aspects, policies, and technical challenges. , 2022, , 251-277.		0
2	Analysis of the impact of vehicle lightweighting on recycling benefits considering life cycle energy reductions. Resources, Conservation and Recycling, 2021, 164, 105118.	10.8	26
3	Design of a district heating network based on the linear heat density. Transactions of the JSME (in) Tj ETQq1 1 0.784314 rgBT <sub>0</sub> /Overlo 0.2		
4	Analysis of woody biomass utilization for heat, electricity, and CHP in a regional city of Japan. Journal of Cleaner Production, 2021, 290, 125665.	9.3	24
5	Spatial&#x2013;Temporal Estimation and Analysis of Japan Onshore and Offshore Wind Energy Potential. Energies, 2021, 14, 2168.	3.1	7
6	Optimal Design and Analysis of Sector-Coupled Energy System in Northeast Japan. Energies, 2021, 14, 2823.	3.1	5
7	Rethinking sustainable bioenergy development in Japan: decentralised system supported by local forestry biomass. Sustainability Science, 2020, 15, 1461-1471.	4.9	19
8	Regional Spatial Analysis of the Offshore Wind Potential in Japan. Energies, 2020, 13, 6303.	3.1	4
9	Energy Consumption Analysis for Vehicle Production through a Material Flow Approach. Energies, 2020, 13, 2396.	3.1	25
10	Recoverability Analysis of Critical Materials from Electric Vehicle Lithium-Ion Batteries through a Dynamic Fleet-Based Approach for Japan. Sustainability, 2020, 12, 147.	3.2	14
11	Quantitative Analysis of Energy Supply and Demand Structure for Regional Decarbonization:A Case Study on Miyako City, Iwate Prefecture and the Miyako Smart Community Project. Studies in Regional Science, 2020, 50, 227-241.	0.1	1
12	Well-to-wheel analysis and a feasibility study of fuel cell vehicles in the passenger transportation sector. Transactions of the JSME (in Japanese), 2019, 85, 18-00122-18-00122.	0.2	1
13	Application of energy and CO2 reduction assessments for end-of-life vehicles recycling in Japan. Applied Energy, 2019, 237, 779-794.	10.1	40
14	Design and Analysis of District Heating Systems Utilizing Excess Heat in Japan. Energies, 2019, 12, 1202.	3.1	12
15	Design of a sustainable woody biomass supply chain considering facility location problem. Transactions of the JSME (in Japanese), 2018, 84, 17-00565-17-00565.	0.2	0
16	Cost and CO2 reduction of biomass co-firing using waste wood biomass in Tohoku region, Japan. Journal of Cleaner Production, 2018, 174, 1044-1053.	9.3	17
17	Energy and CO&#x26;#x2013;Benefit Assessment of Reused Vehicle Parts through a Material Flow Approach. International Journal of Automotive Engineering, 2018, 9, 91-98.	0.5	9
18	Design of Sustainable EFB Utilization System Considering International Transportation. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2018, 97, 314-329.	0.2	0

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19	Cost Assessment of a District Heating System in Northern Japan Using a Geographic Information- Based Mixed Integer Linear Programming Model. Journal of Energy Engineering - ASCE, 2017, 143, .	1.9	5
20	A novel approach for analyzing the food-energy nexus through on-farm energy generation. Clean Technologies and Environmental Policy, 2017, 19, 1003-1019.	4.1	13
21	Steam turbine life cycle cost evaluations and comparison with other power systems. , 2017, , 93-106.		0
22	Induced technological change and the timing of public R&D investment in the Japanese electricity sector considering a two-factor learning curve. Clean Technologies and Environmental Policy, 2017, 19, 1347-1360.	4.1	6
23	Preliminary study of energy security and energy resilience evaluation in Japan. Transactions of the JSME (in Japanese), 2017, 83, 16-00161-16-00161.	0.2	0
24	Wood Flow Chart for Japan: Material and Energy Utilization. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2017, 96, 206-216.	0.2	6
25	Analysis of Trade-offs Between First-generation Biofuels and Food Production for Japan Using CGE Modelling. International Journal of Economic Policy Studies, 2016, 11, 1-24.	0.6	0
26	A material flow of hydrogen from production to consumption. Transactions of the JSME (in Japanese), 2016, 82, 15-00574-15-00574.	0.2	1
27	Supply potential estimation and economic evaluation of carbon free hydrogen considering spatial information. Transactions of the JSME (in Japanese), 2016, 82, 16-00119-16-00119.	0.2	0
28	Analysis of local energy demand-supply distribution and visualization of the energy spatial information toward smart community. Transactions of the JSME (in Japanese), 2016, 82, 16-00100-16-00100.	0.2	3
29	DESIGN OF THE SUSTAINABLE ENERGY SYSTEM IN A LOCAL AREA CONSIDERING ECONOMIC AND RESOURCE CIRCULATION. Journal of Japan Society of Civil Engineers Ser G (Environmental Research), 2016, 72, II_269-II_276.	0.1	0
30	Decentralised electricity generation system based on local renewable energy sources in the Honduran rural residential sector. Clean Technologies and Environmental Policy, 2016, 18, 883-900.	4.1	13
31	A feasibility and performance assessment of a low temperature district heating system - A North Japanese case study. Energy, 2016, 95, 155-174.	8.8	26
32	Integration of WTE technologies into the electrical system for low-carbon growth in Venezuela. Renewable Energy, 2016, 86, 1247-1255.	8.9	9
33	Integrated Assessment of Biomass Energy Systems Considering Effective Utilization of Resources. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2016, 95, 111-122.	0.2	1
34	Design of woody biomass energy system considering wide area collection and application to coal co-firing in Tohoku area. Transactions of the JSME (in Japanese), 2015, 81, 14-00395-14-00395.	0.2	2
35	Development and analysis of an energy flow considering renewable energy potential. Transactions of the JSME (in Japanese), 2015, 81, 15-00164-15-00164.	0.2	3
36	ICOPE-15-1059 Design of woody biomass supply chain for co-firing considering characteristics of bio-fuel. The Proceedings of the International Conference on Power Engineering (ICOPE), 2015, 2015.12, _ICOPE-15--_ICOPE-15-.	0.0	0

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37	ICOPE-15-1045 Analysis of food production and energy nexus through a model proposed for multifunctional farms considering land use efficiency. The Proceedings of the International Conference on Power Engineering (ICOPE), 2015, 2015.12, _ICOPE-15-_ICOPE-15-.	0.0	0
38	ICOPE-15-1055 Analysis of the introduction of biofuel from rice in Japan using a computable general equilibrium model. The Proceedings of the International Conference on Power Engineering (ICOPE), 2015, 2015.12, _ICOPE-15-_ICOPE-15-.	0.0	0
39	ICOPE-15-1044 Quantitative evaluation of national energy security by using multi-objective analysis. The Proceedings of the International Conference on Power Engineering (ICOPE), 2015, 2015.12, _ICOPE-15-_ICOPE-15-.	0.0	0
40	Development of an Energy-Economic Model with Endogenous Technological Progress and Feasibility Study of CCS Systems. Heat Transfer - Asian Research, 2014, 43, 332-351.	2.8	0
41	Techno-economic assessment of lightweight and zero emission vehicles deployment in the passenger car fleet of developing countries. Applied Energy, 2014, 123, 129-142.	10.1	23
42	A comparative exergy and exergoeconomic analysis of a residential heat supply system paradigm of Japan and local source based district heating system using SPECO (specific exergy cost) method. Energy, 2014, 74, 537-554.	8.8	30
43	Quantification of technological learning by R&D and its application for renewable energy technologies. Transactions of the JSME (in Japanese), 2014, 80, TE0042-TE0042.	0.2	4
44	Allocating Optimum Aircrafts for Less Environmental Impacts and Future Carbon Emission Mitigation. Journal of the Japan Society for Aeronautical and Space Sciences, 2014, 62, 157-162.	0.1	0
45	Analysis of CO2 emissions reduction potential in secondary production and semi-fabrication of non-ferrous metals. Energy Policy, 2013, 52, 328-341.	8.8	22
46	Economic Ripple Effects of Bioethanol Production in ASEAN Countries: Application of Inter-regional Input-Output Analysis. Japan Agricultural Research Quarterly, 2013, 47, 307-317.	0.4	5
47	Design of Automotive Bioethanol Supply Chain Using Mixed Integer Programming. Nihon Enerugi Gakkai/Journal of the Japan Institute of Energy, 2013, 92, 1173-1186.	0.2	3
48	Energy use and CO2 emissions reduction potential in passenger car fleet using zero emission vehicles and lightweight materials. Energy, 2012, 48, 548-565.	8.8	90
49	Design of decentralized energy systems for rural electrification in developing countries considering regional disparity. Applied Energy, 2012, 91, 130-145.	10.1	88
50	Assessment of energy utilization in Iran's industrial sector using energy and exergy analysis method. Applied Thermal Engineering, 2012, 36, 472-481.	6.0	20
51	Optimum design of district heating: Application of a novel methodology for improved design of community scale integrated energy systems. Energy, 2012, 38, 190-204.	8.8	23
52	Design of an Optimal Waste Utilization System: A Case Study in St. Petersburg, Russia. Sustainability, 2011, 3, 1486-1509.	3.2	27
53	Development of an Energy Economic Model with Endogenous Technical Progress and Feasibility Study of CCS Systems. 880-02 Nihon Kikai Gakkai Ronbunshu Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2011, 77, 1672-1686.	0.2	1
54	Potentials of GHG reductions from wastewater treatment for the CDM. Science China Technological Sciences, 2011, 54, 1649-1654.	4.0	1

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55	Economic analysis on small-scale forest biomass gasification considering geographical resources distribution and technical characteristics. Biomass and Bioenergy, 2011, 35, 2883-2892.	5.7	33
56	Modeling technological learning and its application for clean coal technologies in Japan. Applied Energy, 2011, 88, 330-336.	10.1	26
57	Application of energy system models for designing a low-carbon society. Progress in Energy and Combustion Science, 2011, 37, 462-502.	31.2	157
58	The Analysis on Performance of Microalgae-based Biofuel Production System Considering Regional Climate Condition and Transportation. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2011, 90, 1047-1056.	0.2	3
59	An Inventory Analysis of Sewage Energy System. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2011, 90, 247-257.	0.2	4
60	Nuclear Energy Development in Japan. , 2011, , 98-115.		0
61	Inventory Analysis of Biogas Utilization System in the Wastewater Treatment for the CDM. , 2011, , .		0
62	Economic Ripple Effects of Policy Coordination on Bio-ethanol Production and Trade in East Asia: Application of International Inter-regional Input-Output Analysis. Studies in Regional Science, 2011, 41, 635-650.	0.1	0
63	Optimization of International Bioethanol Supply in East Asia. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2011, 90, 963-971.	0.2	2
64	Shift to a low carbon society through energy systems design. Science China Technological Sciences, 2010, 53, 134-143.	4.0	15
65	Design of Biomass Co-firing System Considering Resource Distribution and Transportation Optimization. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2010, 89, 42-52.	0.2	10
66	Design of Bioethanol Production System Utilizing Restorable Fallow Land. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2010, 89, 355-363.	0.2	2
67	217 Design and performance evaluation of an optimal municipal solid waste utilization system considering energy options in Russia. The Proceedings of the Symposium on Environmental Engineering, 2010, 2010.20, 135-138.	0.0	0
68	Analysis of the market penetration of clean coal technologies and its impacts in China's electricity sector. Energy Policy, 2009, 37, 338-351.	8.8	65
69	Multi-objective assessment of rural electrification in remote areas with poverty considerations. Energy Policy, 2009, 37, 3096-3108.	8.8	45
70	A204 Energy systems analysis of CCS feasibility with endogenous technological change(Gas Turbine-5). The Proceedings of the International Conference on Power Engineering (ICOPE), 2009, 2009.2, _2-19_-_2-24_.	0.0	0
71	Quantitative analysis of energy-efficiency strategy on CO2 emissions in the residential sector in Japan " Case study of Iwate prefecture. Applied Energy, 2008, 85, 204-217.	10.1	15
72	Energy-efficiency strategy for CO2 emissions in a residential sector in Japan. Applied Energy, 2008, 85, 101-114.	10.1	39

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73	Assessment of access to electricity and the socio-economic impacts in rural areas of developing countries. <i>Energy Policy</i> , 2008, 36, 2016-2029.	8.8	352
74	Renewable technologies for rural electrification in Colombia: a multiple objective approach. <i>International Journal of Energy Sector Management</i> , 2008, 2, 139-154.	2.3	16
75	Study on Economic Aspects and the Introduction of Clean Coal Technologies with CCS. <i>Journal of Power and Energy Systems</i> , 2008, 2, 1016-1026.	0.5	1
76	Optimal Design of Biomass Utilization System for Rural Area Includes Technical and Economic Dimensions. <i>IEEJ Transactions on Electronics, Information and Systems</i> , 2008, 128, 176-183.	0.2	1
77	Allocation and Introduction of Biomass Plants Considering Geographic Distribution of Livestock Manure. <i>Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy</i> , 2008, 87, 56-67.	0.2	2
78	CO <sub>2</sub> emissions mitigation policies and their effects on the Thailand energy system. <i>International Journal of Global Energy Issues</i> , 2007, 28, 161.	0.4	0
79	Analysis of the energy access improvement and its socio-economic impacts in rural areas of developing countries. <i>Ecological Economics</i> , 2007, 62, 319-329.	5.7	146
80	Economic Analysis on Small-Scale Forest Biomass Gasification Considering Regional Resource Distribution and Technical Characteristics. <i>Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy</i> , 2007, 86, 109-118.	0.2	12
81	Biomass: Design of Woody Biomass Energy System Considering Economics of Scale and Demand-and-Supply Equilibrium. <i>Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy</i> , 2007, 86, 718-729.	0.2	4
82	Optimum System Design for Effective Utilization of Livestock Manure in Rural Area. <i>Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy</i> , 2007, 86, 256-264.	0.2	2
83	Study on Economic Aspects and the Introduction of Clean Coal Technologies with CCS. , 2007, , 778-782.		0
84	Analysis of the impact of electricity grid interconnection between Korea and Japan—Feasibility study for energy network in Northeast Asia. <i>Energy Policy</i> , 2006, 34, 1015-1025.	8.8	27
85	Economics and a Policy Option on Wood Pellet Fuel in Japan. <i>Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy</i> , 2006, 85, 451-460.	0.2	6
86	Design for biomass energy systems with application to rural areas. <i>Journal of Environmental Conservation Engineering</i> , 2006, 35, 394-398.	0.1	0
87	Economic Analyses of Solid Waste Management to Improve Recycling and Minimize Landfills. <i>Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy</i> , 2006, 85, 49-57.	0.2	0
88	Design for renewable energy systems with application to rural areas in Japan. <i>Energy Policy</i> , 2005, 33, 209-219.	8.8	65
89	Energy-economic models and the environment. <i>Progress in Energy and Combustion Science</i> , 2004, 30, 417-475.	31.2	155
90	Input-Output Analysis for Installing Renewable Energy Systems. <i>Energy and Environment</i> , 2004, 15, 271-281.	4.6	3

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91	Design of Energy System Introducing Biomass Resources for a Rural Area. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2004, 83, 1013-1020.	0.2	5
92	EIMY (Energy In My Yard)“a concept for practical usage of renewable energy from local sources. Geothermics, 2003, 32, 767-777.	3.4	8
93	Energy modeling on cleaner vehicles for reducing CO2 emissions in Japan. Journal of Cleaner Production, 2003, 11, 389-396.	9.3	20
94	Analysis of the impacts of nuclear phase-out on energy systems in Japan. Energy, 2002, 27, 363-377.	8.8	24
95	Liquid-Solid Contact in Microbubble Emission Boiling through Void Signals.. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2001, 67, 2304-2310.	0.2	2
96	Analysis of the impacts of carbon taxes on energy systems in Japan. Energy Policy, 2001, 29, 159-166.	8.8	79
97	Analysis of the impact of hybrid vehicles on energy systems in Japan. Transportation Research, Part D: Transport and Environment, 2000, 5, 373-383.	6.8	21
98	A Study of Combustion Characteristics of Gasified Coal Fuel. , 1999, , .		1
99	Reaction of Fuel NOx Formation for Gas Turbine Conditions. Journal of Engineering for Gas Turbines and Power, 1998, 120, 474-480.	1.1	9
100	A Study on LBG-Fueled 1500.DEG.C.-class Gas Turbine Combustor for Use in IGCC. 1st Report, Design Study and Atmospheric Combustion Test of a Combustor.. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 1998, 64, 582-589.	0.2	0
101	A Study on Low NOx Combustion in LBG-Fueled 1500Å°C-Class Gas Turbine. Journal of Engineering for Gas Turbines and Power, 1996, 118, 534-540.	1.1	7
102	Study of Ammonia Removal from Coal-Gasified Fuel.. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 1995, 61, 4483-4491.	0.2	0
103	A Study on Low NOx Combustion in LBG-Fueled 1500Å°C-Class Gas Turbine. , 1994, , .		3
104	Effect of Pressure on Combustion Characteristics in LBG-Fueled 1300Å°C-Class Gas Turbine. Journal of Engineering for Gas Turbines and Power, 1994, 116, 554-558.	1.1	5
105	Effect of Pressure on Combustion Characteristics in LBG“Fueled 1300Å°C“Class Gas Turbine. , 1993, , .		4
106	Formation Characteristics of Fuel NOx in the Combustion of Coal Gaseous-Fueled Gas Turbine.. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 1993, 59, 2568-2575.	0.2	2
107	Development of a 1300.DEG.C.-Class Gas Turbine Combustor Burning Coal-Derived Low-BTU Gaseous Fuels. 4th Report. Experimental Evaluation of an Advanced Rich-Lean Combustor under High-Pressure Conditions.. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen. 1992. 58. 2890-2897.	0.2	3
108	Design and Test of a Low-NOx Advanced Rich-Lean Combustor for LBG Fueled 1300Å°C-Class Gas Turbine. , 1992, , .		2

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109	Reaction Analysis of Coal Gaseous Fuel in a Gas Turbine Combustor.. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 1992, 71, 34-41.	0.2	5
110	The effect of CH <sub>4</sub> contained in coal gas fuel on NO <sub>x</sub> formation.. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 1991, 57, 811-818.	0.2	6
111	Development of a 1300.DEG.C.-class gas turbine combustor burning coal-derived low BTU gaseous fuels. 3rd Report, Experimental evaluation of an advanced rich-lean combustor.. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 1991, 57, 803-810.	0.2	4
112	Development of a 1300.DEG.C.-class gas turbine combustor burning coal-derived low-BTU gaseous fuels.. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 1990, 56, 3147-3154.	0.2	4
113	Experimental Evaluation of a Low NO <sub>x</sub> LBG Combustor Using Bypass Air. , 1990, , .		4
114	Coal Gaseous Fueled, Low Fuel-NO <sub>x</sub> Gas Turbine Combustor. , 1990, , .		3
115	NO <sub>x</sub> Emission characteristics of coal-derived low BTU gas fuel.. Nenryo Kyokai-Shi/Journal of the Fuel Society of Japan, 1990, 69, 952-959.	0.0	8
116	Development of a Low-NO <sub>x</sub> LBG Combustor for Coal Gasification Combined Cycle Power Generation Systems. , 1989, , .		2