Toshihiko Nakata

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Assessment of access to electricity and the socio-economic impacts in rural areas of developing countries. Energy Policy, 2008, 36, 2016-2029.	8.8	352
2	Application of energy system models for designing a low-carbon society. Progress in Energy and Combustion Science, 2011, 37, 462-502.	31.2	157
3	Energy-economic models and the environment. Progress in Energy and Combustion Science, 2004, 30, 417-475.	31.2	155
4	Analysis of the energy access improvement and its socio-economic impacts in rural areas of developing countries. Ecological Economics, 2007, 62, 319-329.	5.7	146
5	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
6	Design of decentralized energy systems for rural electrification in developing countries considering regional disparity. Applied Energy, 2012, 91, 130-145.	10.1	88
7	Analysis of the impacts of carbon taxes on energy systems in Japan. Energy Policy, 2001, 29, 159-166.	8.8	79
8	Design for renewable energy systems with application to rural areas in Japan. Energy Policy, 2005, 33, 209-219.	8.8	65
9	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
10	Multi-objective assessment of rural electrification in remote areas with poverty considerations. Energy Policy, 2009, 37, 3096-3108.	8.8	45
11	Application of energy and CO2 reduction assessments for end-of-life vehicles recycling in Japan. Applied Energy, 2019, 237, 779-794.	10.1	40
12	Energy-efficiency strategy for CO2 emissions in a residential sector in Japan. Applied Energy, 2008, 85, 101-114.	10.1	39
13	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
14	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
15	Analysis of the impact of electricity grid interconnection between Korea and Japan—Feasibility study for energy network in Northeast Asia. Energy Policy, 2006, 34, 1015-1025.	8.8	27
16	Design of an Optimal Waste Utilization System: A Case Study in St. Petersburg, Russia. Sustainability, 2011, 3, 1486-1509.	3.2	27
17	Modeling technological learning and its application for clean coal technologies in Japan. Applied Energy, 2011, 88, 330-336.	10.1	26
18	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

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19	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
20	Energy Consumption Analysis for Vehicle Production through a Material Flow Approach. Energies, 2020, 13, 2396.	3.1	25
21	Analysis of the impacts of nuclear phase-out on energy systems in Japan. Energy, 2002, 27, 363-377.	8.8	24
22	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
23	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
24	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
25	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
26	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
27	Energy modeling on cleaner vehicles for reducing CO2 emissions in Japan. Journal of Cleaner Production, 2003, 11, 389-396.	9.3	20
28	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
29	Rethinking sustainable bioenergy development in Japan: decentralised system supported by local forestry biomass. Sustainability Science, 2020, 15, 1461-1471.	4.9	19
30	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
31	Renewable technologies for rural electrification in Colombia: a multiple objective approach. International Journal of Energy Sector Management, 2008, 2, 139-154.	2.3	16
32	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
33	Shift to a low carbon society through energy systems design. Science China Technological Sciences, 2010, 53, 134-143.	4.0	15
34	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
35	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
36	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

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37	Design and Analysis of District Heating Systems Utilizing Excess Heat in Japan. Energies, 2019, 12, 1202.	3.1	12
38	Economic Analysis on Small-Scale Forest Biomass Gasification Considering Regional Resource Distribution and Technical Characteristics. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2007, 86, 109-118.	0.2	12
39	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
40	Reaction of Fuel NOx Formation for Gas Turbine Conditions. Journal of Engineering for Gas Turbines and Power, 1998, 120, 474-480.	1.1	9
41	Integration of WTE technologies into the electrical system for low-carbon growth in Venezuela. Renewable Energy, 2016, 86, 1247-1255.	8.9	9
42	Energy and CO ₂ Benefit Assessment of Reused Vehicle Parts through a Material Flow Approach. International Journal of Automotive Engineering, 2018, 9, 91-98.	0.5	9
43	EIMY (Energy In My Yard)—a concept for practical usage of renewable energy from local sources. Geothermics, 2003, 32, 767-777.	3.4	8
44	NOx 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
45	A Study on Low NOx Combustion in LBG-Fueled 1500°C-Class Gas Turbine. Journal of Engineering for Gas Turbines and Power, 1996, 118, 534-540.	1.1	7
46	Spatial–Temporal Estimation and Analysis of Japan Onshore and Offshore Wind Energy Potential. Energies, 2021, 14, 2168.	3.1	7
47	The effect of CH4 contained in coal gas fuel on NOx formation 880-02 Nihon Kikai Gakkai Ronbunshū Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 1991, 57, 811-818.	0.2	6
48	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
49	Economics and a Policy Option on Wood Pellet Fuel in Japan. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2006, 85, 451-460.	0.2	6
50	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
51	Effect of Pressure on Combustion Characteristics in LBG-Fueled 1300°C-Class Gas Turbine. Journal of Engineering for Gas Turbines and Power, 1994, 116, 554-558.	1.1	5
52	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
53	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
54	Optimal Design and Analysis of Sector-Coupled Energy System in Northeast Japan. Energies, 2021, 14, 2823.	3.1	5

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55	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
56	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
57	Development of a 1300.DEG.Cclass gas turbine combustor burning coal-derived low-BTU gaseous fuels 880-02 Nihon Kikai Gakkai Ronbunshū Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 1990, 56, 3147-3154.	0.2	4
58	Development of a 1300.DEG.Cclass 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 Ronbunshū Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 1991, 57, 803-810.	0.2	4
59	Effect of Pressure on Combustion Characteristics in LBG–Fueled 1300°C–Class Gas Turbine. , 1993, , .		4
60	Quantification of technological learning by R&D and its application for renewable energy technologies. Transactions of the JSME (in Japanese), 2014, 80, TEP0042-TEP0042.	0.2	4
61	Regional Spatial Analysis of the Offshore Wind Potential in Japan. Energies, 2020, 13, 6303.	3.1	4
62	Experimental Evaluation of a Low NOx LBG Combustor Using Bypass Air. , 1990, , .		4
63	An Inventory Analysis of Sewage Energy System. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2011, 90, 247-257.	0.2	4
64	Biomass: Design of Woody Biomass Energy System Considering Economics of Scale and Demand-and-Supply Equilibrium. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2007, 86, 718-729.	0.2	4
65	Development of a 1300.DEG.CClass 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 Ronbunshū Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 1992, 58, 2890-2897.	0.2	3
66	A Study on Low NOx Combustion in LBG-Fueled $1500 \hat{A}^\circ$ C-Class Gas Turbine. , 1994, , .		3
67	Input-Output Analysis for Installing Renewable Energy Systems. Energy and Environment, 2004, 15, 271-281.	4.6	3
68	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
69	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
70	Coal Gaseous Fueled, Low Fuel-NOx Gas Turbine Combustor. , 1990, , .		3
71	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
72	Design of Automotive Bioethanol Supply Chain Using Mixed Integer Programming. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2013, 92, 1173-1186.	0.2	3

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73	Formation Characteristics of Fuel NOx in the Combustion of Coal Gaseous-Fueled Gas Turbine 880-02 Nihon Kikai Gakkai Ronbunshū Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 1993, 59, 2568-2575.	0.2	2
74	Liquid-Solid Contact in Microbubble Emission Boiling through Void Signals 880-02 Nihon Kikai Gakkai Ronbunshū Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2001, 67, 2304-2310.	0.2	2
75	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
76	Design and Test of a Low-NOx Advanced Rich-Lean Combustor for LBG Fueled 1300°C-Class Gas Turbine. , 1992, , .		2
77	Allocation and Introduction of Biomass Plants Considering Geographic Distribution of Livestock Manure. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2008, 87, 56-67.	0.2	2
78	Optimum System Design for Effective Utilization of Livestock Manure in Rural Area. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2007, 86, 256-264.	0.2	2
79	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
80	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
81	Development of a Low-NOx LBG Combustor for Coal Gasification Combined Cycle Power Generation Systems. , 1989, , .		2
82	A Study of Combustion Characteristics of Gasified Coal Fuel. , 1999, , .		1
83	Study on Economic Aspects and the Introduction of Clean Coal Technologies with CCS. Journal of Power and Energy Systems, 2008, 2, 1016-1026.	O.5	1
84	Development of an Energy Economic Model with Endogenous Technical Progress and Feasibility Study of CCS Systems. 880-02 Nihon Kikai Gakkai RonbunshÁ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2011, 77, 1672-1686.	0.2	1
85	Potentials of GHG reductions from wastewater treatment for the CDM. Science China Technological Sciences, 2011, 54, 1649-1654.	4.0	1
86	A material flow of hydrogen from production to consumption. Transactions of the JSME (in Japanese), 2016, 82, 15-00574-15-00574.	0.2	1
87	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
88	Optimal Design of Biomass Utilization System for Rural Area Includes Technical and Economic Dimensions. IEEJ Transactions on Electronics, Information and Systems, 2008, 128, 176-183.	0.2	1
89	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
90	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

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91	Study of Ammonia Removal from Coal-Gasified Fuel 880-02 Nihon Kikai Gakkai Ronbunshū Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 1995, 61, 4483-4491.	0.2	0
92	A Study on LBG-Fueled 1500.DEG.Cclass Gas Turbine Combustor for Use in IGCC. 1st Report, Design Study and Atmospheric Combustion Test of a Combustor 880-02 Nihon Kikai Gakkai Ronbunshū Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 1998, 64, 582-589.	0.2	0
93	CO _{2 emissions mitigation policies and their effects on the Thailand energy system. International Journal of Global Energy Issues, 2007, 28, 161.}	0.4	0
94	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
95	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
96	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
97	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
98	Steam turbine life cycle cost evaluations and comparison with other power systems. , 2017, , 93-106.		0
99	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
100	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
101	Design of a district heating network based on the linear heat density. Transactions of the JSME (in) Tj ETQq1 1 0.	784314 rg 0.2	gBT /Overlock
102	Design for biomass energy systems with application to rural areas. Journal of Environmental Conservation Engineering, 2006, 35, 394-398.	0.1	0
103	Economic Analyses of Solid Waste Management to Improve Recycling and Minimize Landfills. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2006, 85, 49-57.	0.2	0
104	Study on Economic Aspects and the Introduction of Clean Coal Technologies with CCS. , 2007, , 778-782.		0
105	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, _2-192-24	0.0	0
106	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
107	Nuclear Energy Development in Japan. , 2011, , 98-115.		0

108 Inventory Analysis of Biogas Utilization System in the Wastewater Treatment for the CDM. , 2011, , .

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109	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
110	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
111	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-15ICOPE-15	0.0	0
112	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-15ICOPE-15	0.0	0
113	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-15ICOPE-15	0.0	0
114	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-15ICOPE-15	0.0	0
115	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
116	Introduction on mobile hybrid systems: Motivations, environmental aspects, policies, and technical challenges. , 2022, , 251-277.		0