Vol.4 table of contents (2011)

Vol.4 No.1

Vol.4 No.1	
Research papers	
Development of novel chemical reagents for reliable genetic analyses — Process from an original idea to marketing of a chemical product used for life science — X KOMMENT and N KOMMENT	1.0
Y. KOMATSU and N. KOJIMA	1-8
Development of laser-assisted inkjet printing technology - Wiring technology to achieve high throughput and fine patterning simultaneously - A. ENDO and J. AKEDO	9-18
Formation of research strategy and synthetic research evaluation based on the strategy	
- Toward research program evaluation as a creative activity -	
N. KOBAYASHI, O. NAKAMURA and K. OOI	19-34
Development and release of a spectral database for organic compounds - Key to the continual services and success of a large-scale database T. SAITO and S. KINUGASA	35-44
Challenge for the development of micro SOFC manufacturing technology — Compact SOFC using innovative ceramics integration process — Y. FUJISHIRO, T. SUZUKI, T. YAMAGUCHI, K. HAMAMOTO and M. AWANO	45-55
Round-table Talk	
"Monozukuri" (manufacturing) of Japan and synthesiology H. NARIAI, A. TSUGE and A. YABE	56-62
Report	
Synthesiology Workshop	
- Methodology of technology integration toward establishing an open innovation hub –	63-69
Vol.4 No.2	
Vol.4 No.2 Research papers	
Research papers	
	75 - 86
Research papers ARGUS: Adaptive Recognition for General Use System	75 - 86
Research papers ARGUS: Adaptive Recognition for General Use System	75 - 86
Research papers ARGUS: Adaptive Recognition for General Use System — Its theoretical construction and applications — Toward the use of humanoid robots as assemblies of content technologies — Realization of a biped humanoid robot allowing content creators to produce various expressions —	
Research papers ARGUS: Adaptive Recognition for General Use System - Its theoretical construction and applications - Forward the use of humanoid robots as assemblies of content technologies	75 - 86 87 - 98
Research papers ARGUS: Adaptive Recognition for General Use System — Its theoretical construction and applications — Toward the use of humanoid robots as assemblies of content technologies — Realization of a biped humanoid robot allowing content creators to produce various expressions —	
Research papers ARGUS: Adaptive Recognition for General Use System — Its theoretical construction and applications — Toward the use of humanoid robots as assemblies of content technologies — Realization of a biped humanoid robot allowing content creators to produce various expressions — S. NAKAOKA, K. MIURA, M. MORISAWA, F. KANEHIRO, K. KANEKO, S. KAJITA and K. YOKOI Thermoelectric hydrogen gas sensor	
Research papers ARGUS: Adaptive Recognition for General Use System — Its theoretical construction and applications — Toward the use of humanoid robots as assemblies of content technologies — Realization of a biped humanoid robot allowing content creators to produce various expressions — S. NAKAOKA, K. MIURA, M. MORISAWA, F. KANEHIRO, K. KANEKO, S. KAJITA and K. YOKOI Thermoelectric hydrogen gas sensor — Technology to secure safety in hydrogen usage and international standardization of hydrogen gas sensor —	87 - 98
Research papers ARGUS: Adaptive Recognition for General Use System — Its theoretical construction and applications — Toward the use of humanoid robots as assemblies of content technologies — Realization of a biped humanoid robot allowing content creators to produce various expressions — S. NAKAOKA, K. MIURA, M. MORISAWA, F. KANEHIRO, K. KANEKO, S. KAJITA and K. YOKOI Thermoelectric hydrogen gas sensor	
Research papers ARGUS: Adaptive Recognition for General Use System - Its theoretical construction and applications - Toward the use of humanoid robots as assemblies of content technologies - Realization of a biped humanoid robot allowing content creators to produce various expressions - S. NAKAOKA, K. MIURA, M. MORISAWA, F. KANEHIRO, K. KANEKO, S. KAJITA and K. YOKOI Thermoelectric hydrogen gas sensor - Technology to secure safety in hydrogen usage and international standardization of hydrogen gas sensor - W. SHIN, M. NISHIBORI and I. MATSUBARA	87 - 98
Research papers ARGUS: Adaptive Recognition for General Use System - Its theoretical construction and applications - Toward the use of humanoid robots as assemblies of content technologies - Realization of a biped humanoid robot allowing content creators to produce various expressions - S. NAKAOKA, K. MIURA, M. MORISAWA, F. KANEHIRO, K. KANEKO, S. KAJITA and K. YOKOI Thermoelectric hydrogen gas sensor - Technology to secure safety in hydrogen usage and international standardization of hydrogen gas sensor - W. SHIN, M. NISHIBORI and I. MATSUBARA Demonstration of optical communication network for ultra high-definition image transmission	87 - 98
Research papers ARGUS: Adaptive Recognition for General Use System - Its theoretical construction and applications - Toward the use of humanoid robots as assemblies of content technologies - Realization of a biped humanoid robot allowing content creators to produce various expressions - S. NAKAOKA, K. MIURA, M. MORISAWA, F. KANEHIRO, K. KANEKO, S. KAJITA and K. YOKOI Thermoelectric hydrogen gas sensor - Technology to secure safety in hydrogen usage and international standardization of hydrogen gas sensor - W. SHIN, M. NISHIBORI and I. MATSUBARA	87 - 98 99 - 107
Research papers ARGUS: Adaptive Recognition for General Use System - Its theoretical construction and applications - - Its theoretical construction and applications - - Toward the use of humanoid robots as assemblies of content technologies - Realization of a biped humanoid robot allowing content creators to produce various expressions - S. NAKAOKA, K. MIURA, M. MORISAWA, F. KANEHIRO, K. KANEKO, S. KAJITA and K. YOKOI Thermoelectric hydrogen gas sensor - Technology to secure safety in hydrogen usage and international standardization of hydrogen gas sensor - W. SHIN, M. NISHIBORI and I. MATSUBARA Demonstration of optical communication network for ultra high-definition image transmission - Proof-of-concept experiment of image distribution over the dynamic optical path network -	87 - 98 99 - 107
Research papers ARGUS: Adaptive Recognition for General Use System - Its theoretical construction and applications - N. OTSU Toward the use of humanoid robots as assemblies of content technologies - Realization of a biped humanoid robot allowing content creators to produce various expressions - S. NAKAOKA, K. MIURA, M. MORISAWA, F. KANEHIRO, K. KANEKO, S. KAJITA and K. YOKOI Thermoelectric hydrogen gas sensor - Technology to secure safety in hydrogen usage and international standardization of hydrogen gas sensor - W. SHIN, M. NISHIBORI and I. MATSUBARA Demonstration of optical communication network for ultra high-definition image transmission - Proof-of-concept experiment of image distribution over the dynamic optical path network - J. KURUMIDA and S. NAMIKI	87 - 98 99 - 107
Research papers ARGUS: Adaptive Recognition for General Use System - Its theoretical construction and applications - N. OTSU Toward the use of humanoid robots as assemblies of content technologies - Realization of a biped humanoid robot allowing content creators to produce various expressions - S. NAKAOKA, K. MIURA, M. MORISAWA, F. KANEHIRO, K. KANEKO, S. KAJITA and K. YOKOI Thermoelectric hydrogen gas sensor - Technology to secure safety in hydrogen usage and international standardization of hydrogen gas sensor - W. SHIN, M. NISHIBORI and I. MATSUBARA Demonstration of optical communication network for ultra high-definition image transmission - Proof-of-concept experiment of image distribution over the dynamic optical path network - J. KURUMIDA and S. NAMIKI Paper supplement to "Study on the PAN carbon-fiber-innovation for modeling a successful R&D management"	87 - 98 99 - 107 108 - 118
Research papers ARGUS: Adaptive Recognition for General Use System - Its theoretical construction and applications — N. OTSU Toward the use of humanoid robots as assemblies of content technologies - Realization of a biped humanoid robot allowing content creators to produce various expressions — S. NAKAOKA, K. MIURA, M. MORISAWA, F. KANEHIRO, K. KANEKO, S. KAJITA and K. YOKOI Thermoelectric hydrogen gas sensor - Technology to secure safety in hydrogen usage and international standardization of hydrogen gas sensor — W. SHIN, M. NISHIBORI and I. MATSUBARA Demonstration of optical communication network for ultra high-definition image transmission - Proof-of-concept experiment of image distribution over the dynamic optical path network — J. KURUMIDA and S. NAMIKI Paper supplement to "Study on the PAN carbon-fiber-innovation for modeling a successful R&D management"	87 - 98 99 - 107 108 - 118
Research papers ARGUS: Adaptive Recognition for General Use System - Its theoretical construction and applications - N. OTSU Toward the use of humanoid robots as assemblies of content technologies - Realization of a biped humanoid robot allowing content creators to produce various expressions - S. NAKAOKA, K. MIURA, M. MORISAWA, F. KANEHIRO, K. KANEKO, S. KAJITA and K. YOKOI Thermoelectric hydrogen gas sensor - Technology to secure safety in hydrogen usage and international standardization of hydrogen gas sensor - W. SHIN, M. NISHIBORI and I. MATSUBARA Demonstration of optical communication network for ultra high-definition image transmission - Proof-of-concept experiment of image distribution over the dynamic optical path network - J. KURUMIDA and S. NAMIKI Paper supplement to "Study on the PAN carbon-fiber-innovation for modeling a successful R&D management"	87 - 98 99 - 107 108 - 118
Research papers ARGUS: Adaptive Recognition for General Use System - Its theoretical construction and applications - N. OTSU Toward the use of humanoid robots as assemblies of content technologies - Realization of a biped humanoid robot allowing content creators to produce various expressions - S. NAKAOKA, K. MIURA, M. MORISAWA, F. KANEHIRO, K. KANEKO, S. KAJITA and K. YOKOI Thermoelectric hydrogen gas sensor - Technology to secure safety in hydrogen usage and international standardization of hydrogen gas sensor - W. SHIN, M. NISHIBORI and I. MATSUBARA Demonstration of optical communication network for ultra high-definition image transmission - Proof-of-concept experiment of image distribution over the dynamic optical path network - J. KURUMIDA and S. NAMIKI Paper supplement to "Study on the PAN carbon-fiber-innovation for modeling a successful R&D management"	87 - 98 99 - 107 108 - 118
Research papers ARGUS: Adaptive Recognition for General Use System - Its theoretical construction and applications - - Its theoretical construction and applications - N. OTSU Toward the use of humanoid robots as assemblies of content technologies - Realization of a biped humanoid robot allowing content creators to produce various expressions - S. NAKAOKA, K. MIURA, M. MORISAWA, F. KANEHIRO, K. KANEKO, S. KAJITA and K. YOKOI Thermoelectric hydrogen gas sensor - Technology to secure safety in hydrogen usage and international standardization of hydrogen gas sensor - W. SHIN, M. NISHIBORI and I. MATSUBARA Demonstration of optical communication network for ultra high-definition image transmission - Proof-of-concept experiment of image distribution over the dynamic optical path network - J. KURUMIDA and S. NAMIKI Paper supplement to "Study on the PAN carbon-fiber-innovation for modeling a successful R&D management" O. NAKAMURA, T. OHANA, M. TAZAWA, S. YOKOTA, W. SHINODA, O. NAKAMURA and J. ITOH	87 - 98 99 - 107 108 - 118

Vol.4 No.3

V01.4 N0.3	
Research papers	
Demonstration test of energy conservation of central air conditioning system at the Sapporo City Office Building — Reduction of pump power by flow drag reduction using surfactant — H. TAKEUCHI	136 - 143
Designing products and services based on understanding human cognitive behavior — Development of cognitive chrono-ethnography for synthesiological research — M. AKAMATSU and M. KITAJIMA	144 - 155
A novel technology for production of drinking water in emergencies — Specific material for selective nitrate adsorption — A. SONODA	156 - 161
Integrated development of automotive navigation and route guidance system — Product development for realization of dreams and standardization for social acceptance — H. ITO	162 - 171
Innovative electron microscope for light-element atom visualization	
 Development of low-voltage electron microscopes in Triple-C project – Y. SATO, T. SASAKI, H. SAWADA, F. HOSOKAWA, T. TOMITA, T. KANEYAMA, Y. KONDO and K. SUENAGA 	172 - 182
Round-table Talks	
Research and development of systems science and technology	183 - 188
Research and development of systems science and technology	105 - 100
Vol.4 No.4	
Research papers	
Development of high efficiency flexible solar cells- Management of "Flexible Solar Cell Substrates Consortium" and its achievements A. MASUDA	194 - 201
Safety assessment of high-level nuclear waste disposal in Japan from the standpoint of geology — Methodology of long-term forecast using geological history — T. YAMAMOTO	202 - 211
	202 211
Improvement of reliability in pressure measurements and international mutual recognition — Incorporation of industrial digital pressure gauges to the national metrology system — T. KOBATA, M. KOJIMA and H. KAJIKAWA	212 - 226
Efficient production of active form of vitamin D_3 by microbial conversion — Comprehensive approach from the molecular to the cellular level — Y. YASUTAKE and T. TAMURA	227 - 235
Round-table Talks	

Systems and synthesiology

--- H. KUWAHARA, A. ONO and M. AKAMATSU 236-243