Sangkwon Jeong

Curriculum Vitae

Current position

Korea Advanced Institute of Science and Technology

Professor, Department of Mechanical Engineering

Address

Korea Advanced Institute of Science and Technology, ME3039
373-1 Kusung-Dong, Yusung-Ku, Daejon, Korea
Tel : 82-42-350-3039 Fax : 82-42-350-8207
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Research Interests

Cryogenics, Cryocooler design, Applied superconductivity system, Cryogenic heat transfer, Refrigeration

Employment

Korea Advanced Institute of Science and Technology	2005 – Present, as full professor
Korea Advanced Institute of Science and Technology	1999 – 2005, as associate professor
Korea Advanced Institute of Science and Technology	1996 – 1999, as assistant professor
Plasma Fusion Center, MIT	1992 – 1995, as research engineer
Cryogenic Engineering Laboratory, MIT	1992, as visiting engineer
Korea Institute of Science and Technology	1987 – 1988, as commissioned research scientist

Education

Institution	Degree	Date
MIT	Ph. D.	1992
Seoul National University	M.S., Mech. Eng.	1987
Seoul National University	B.S., Mech. Eng.	1985

Honors and Awards

1988-92	Distinguished Overseas Scholarship, Ministry of Education, Korea
1998	KOSEF/NSF short-term visiting research Fellowship, Korea Science and Engineering Foundation
1999	JSPS (Japan Society for the Promotion of Science) Fellowship, Korea Science and Engineering Foundation
2000	Overseas Research Fellowship for 2000, Korea Research Foundation

2004	Outstanding research paper award, KIASC (Korea Institute of Applied Superconductivity and Cryogenics)
2005	Overseas Research Fellowship for 2005, SBS Foundation

Patents

- o Rapid cooling device for automobile, #0310772, 2001 registered.
- o Cryocooling device using reverse Brayton cycle, #0310819, 2001 registered.
- o Cryocooler using centrifugal force of rotor, #0337129, 2002 registered.
- o Sorption compressor and the refrigerator with the sorption compressor, #10-0526019, 2003 registered.
- o Hybrid pulse tube refrigerator for cooling high temperature superconductor motor, #10-2004-0026987, 2004 claimed.
- o Fabrication method of a cryogenic regenerator and the cryocooler with it, #10-2004-0092158, 2004 claimed.
- o A cryocooler, #10-2005-0009827, 2005 claimed.
- o A pulse tube refrigerator with dual-direction linear compressor, #10-0571128, 2006 registered.
- o A buffered rotary valve, #10-2006-0115281, 2006 claimed.

Professional Activities

Membership in Professional Societies

- o KSME (Korean Society of Mechanical Engineers)
- o SAREK (Society of Air-conditioning and Refrigerating Engineers of Korea)
- o KIASC (Korea Institute of Applied Superconductivity and Cryogenics)
- o KIEE (Korean Institute of Electrical Engineers)
- o ASME (American Society of Mechanical Engineers)
- o IEEE (Institute of Electrical and Electronics Engineers)
- o IIR (International Institute of Refrigeration)

Editorial Services to Scholarly Publications

- o Journal of the Korea Institute of Applied Superconductivity and Cryogenics : Associate Editor
- o Journal of Mechanical Science and Technology : Associate Editor
- o Cryogenics : Associate Editor
- o International Journal of Refrigeration : Reviewer
- o Entropy : Reviewer
- o International Journal of Air-conditioning and Refrigeration : Reviewer

Other Professional Activities

- o Board member of International Cryogenic Engineering Conference, since 2015
- o Springer Series Editor of ICMS (International Cryogenics Monograph Series) since 2016
- o Associate editor of Cryogenics journal since 2012
- o Guest researcher in NASA Goddard Space Flight Center, USA, 2012-2013
- o Program Committee Member of the International Cryogenic Engineering Conference, Seoul, Korea, Jul. 2008

- o Local Executive Committee Member of ISTP-18 ; 18th International Symposium on Transport Phenomena, KAIST, Korea, Aug. 2007
- o Invited speaker of “On-board cryocooler for superconducting motor” at the Tokyo University of Marine Science and Technology, 2006
- o Invited lecturer at the Department of Mechanical Engineering of University of Victoria, Canada, teaching the course ME390; Energy conversion, 2006
- o Organizing Committee Member of the 3rd East Asia Symposium on Superconductive Electronics (EASSE2005), Gyeongju, Korea, Nov. 2005
- o Invited speaker of “Medical applications of Cryogenic engineering technology” at the first international symposium of Korea university cryosurgery center, Seoul, Korea, 2005
- o Invited speaker of “Pulse tube refrigerator research”, University of Victoria, Canada, 2004
- o Invited lecturer at the Department of Chemical Engineering of UCLA, USA, teaching the course C211; Cryogenics and Low-Temperature Processes, 2004
- o Invited visiting scientist in the Francis Bitter Magnet Laboratory of MIT, USA, 2000-2001
- o Invited researcher in the National High Magnetic Field Laboratory, USA, 1999
- o Session chairman in several international conferences including the international Ondol Conference, 1996, Applied Superconductivity Conference, 1998, the international cryocoolers conference, 2002, the International Cryogenic Engineering Conference, 2004, etc.

Publications

International journal :

1. Sangkwon Jeong, "AMR (Active Magnetic Regenerative) refrigeration for low temperature", CRYOGENICS, 2014
2. Sangkwon Jeong, J Park, S Kim, "AC Operation of Gd-Ba-Cu-O High T-C Superconducting Magnet for Magnetic Refrigeration", IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.24 no.3, 2014.06 ; DOI(http://dx.doi.org/10.1109/TASC.2013.2283469)
3. H Oh, Sangkwon Jeong, J Lee, "Investigation of Neon-Nitrogen mixed refrigerant Joule-Thomson cryocooler operating below 70 K with precooling at 100 K", CRYOGENICS, vol.61pp.55-62, 2014.05
4. Sangkwon Jeong, S Baek, C Lee, "Effect of flow maldistribution and axial conduction on compact microchannel heat exchanger", CRYOGENICS, vol.60pp.49-61, 2014.03 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2014.01.003)
5. I Park, Y Kim, Sangkwon Jeong, "Experimental investigation of two-stage active magnetic regenerative refrigerator operating between 77 K and 20 K", CRYOGENICS, vol.57pp.113-121, 2013.10 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2013.06.002)
6. I Park, Y Kim, Sangkwon Jeong, "Development of the tandem reciprocating magnetic regenerative refrigerator and numerical simulation for the dead volume effect", INTERNATIONAL JOURNAL OF REFRIGERATION-REVUE INTERNATIONALE DU FROID, vol.36 no.6, pp.1741-1749, 2013.09 ; DOI(http://dx.doi.org/10.1016/j.ijrefrig.2013.03.012)
7. T Ki, Sangkwon Jeong, YH Han, BJ Park, "Thermal Packaging of High Temperature Superconductor Bulk for Superconducting Flywheel Energy Storage", IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.23 no.3, 2013.06 ; DOI(http://dx.doi.org/10.1109/TASC.2013.2241376)
8. Sangkwon Jeong, H Park, SH Moon, H Jung, HS Ha, S Lee, S Kim, M Park, "Delamination Characteristics of Single Layer and Stacked HTS Coated Conductor for Conduction Cooling Application", IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.23 no.3, 2013.06 ; DOI(http://dx.doi.org/10.1109/TASC.2012.2236142)
9. J Lee, K Lee, Sangkwon Jeong, "Experimental study of a mixed refrigerant Joule-Thomson cryocooler using a commercial air-conditioning scroll compressor", CRYOGENICS, vol.55-56pp.47-52, 2013.05 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2013.02.001)
10. T Ki, Sangkwon Jeong, "Design and analysis of highly effective pulse tube engine", APPLIED THERMAL ENGINEERING, vol.53 no.1, pp.31-36, 2013.04 ; DOI(http://dx.doi.org/10.1016/j.applthermaleng.2013.01.010)
11. G Hwang, S Baek, Sangkwon Jeong, "Pressure drop characteristics of cryogenic mixed refrigerant at macro and micro channel heat exchangers", CRYOGENICS, vol.52pp.689-694, 2012.12 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2012.06.012)

12. Tae Kyung Ki, Sangkwon Jeong, "Study for coating effect of various materials in pulse tube of pulse tube refrigerator", CRYOGENICS, vol.52 no.10, pp.518-522, 2012.10 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2012.06.008)

13. Sangkwon Jeong, Baek Seung Whan, "Experimental approach to suppress two-phase flow in cryogenic liquid transfer process with the inverted U-bend pipe", EXPERIMENTAL THERMAL AND FLUID SCIENCE, vol.42pp.116-124, 2012.10 ; DOI(http://dx.doi.org/10.1016/j.expthermflusci.2012.04.018)

14. JH Kim, Baek Seung Whan, J Jung, Sangkwon Jeong, "Development of highly effective cryogenic printed circuit heat exchanger (PCHE) with low axial conduction", CRYOGENICS, vol.52 no.7-9, pp.366-374, 2012.07 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2012.03.001)

15. Sangkwon Jeong, Tae Kyung Ki, "Step-by-step design methodology for efficient Stirling-type pulse tube refrigerator", INTERNATIONAL JOURNAL OF REFRIGERATION-REVUE INTERNATIONALE DU FROID, vol.35 no.4, pp.1166-1175, 2012.06 ; DOI(http://dx.doi.org/10.1016/j.ijrefrig.2012.01.017)

16. Mansu Seo, Sangkwon Jeong, H Park, YS Jung, J Kim, "Improved pressure-volume-temperature method for estimation of cryogenic liquid volume", CRYOGENICS, vol.52 no.4-6, pp.290-295, 2012.04 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2012.01.012)

17. D. Ku, M. Seo, D. Ji, Sangkwon Jeong, Y. Jung, "Experimental research of pressure-volume-temperature mass gauging method using instantaneous analysis under cryogenic homogeneous condition", Journal of the Korea Institute of Applied Superconductivity and Cryogenics, vol.14 no.1, pp.38-43, 2012.03

18. Sangkwon Jeong, T. Ki, "Investigation on feasibility of pulse tube engine", Journal of the Korea Institute of Applied Superconductivity and Cryogenics, vol.14 no.1, pp.34-37, 2012.03

19. Sangkwon Jeong, T Ki, "Design and analysis of compact work-recovery phase shifter for pulse tube refrigerator", CRYOGENICS, vol.52 no.2-3, pp.105-110, 2012.02 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2012.01.007)

20. Baek Seung Whan, AM Rowe, G Hwang, Sangkwon Jeong, J Jung, "Partial flow compensation by transverse bypass configuration in multi-channel cryogenic compact heat exchanger", CRYOGENICS, vol.52 no.1, pp.19-26, 2012.01 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2011.10.003)

21. C Lee, D Choi, S Baek, Sangkwon Jeong, G Hwang, "Novel design of LNG (liquefied natural gas) reliquefaction process", ENERGY CONVERSION AND MANAGEMENT, vol.52 no.8-9, pp.2807-2814, 2011.08

22. Sangkwon Jeong, YH Han, G Hwang, J Lee, BJ Park, "Design of high efficiency mixed refrigerant Joule-Thomson refrigerator for cooling HTS cable", CRYOGENICS, vol.51 no.7, pp.408-414, 2011.07

23. J Lee, Sangkwon Jeong, BJ Park, YH Han, "Concept of Cold Energy Storage for Superconducting Flywheel Energy Storage System", IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.21 no.3, pp.2221-2224, 2011.06

24. T Ki, H Kim, Sangkwon Jeong, J Kim, Y Kim, J Jung, "High Temperature Superconducting Motor Cooled by On-Board Cryocooler", IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.21 no.3, pp.2217-2220, 2011.06

25. Sangkwon Jeong, T Ki, "Stirling-type pulse tube refrigerator with slit-type heat exchangers for HTS superconducting motor", CRYOGENICS, vol.51pp.341-346, 2011.06

26. Sangkwon Jeong, T. Ki, "Design of compact phase controller for pulse tube refrigerator", Journal of the Korea Institute of Applied Superconductivity and Cryogenics, vol.13 no.2, pp.25-28, 2011.05

27. C. Lee, G. Hwang, Sangkwon Jeong, "Development of cryogenic liquid-vapor separator and liquid-level meter operating under high pressure condition", Journal of the Korea Institute of Applied Superconductivity and Cryogenics, vol.13 no.1, pp.51-55, 2011.03

28. Y. Kim, H. Kim, T. Ki, Sangkwon Jeong, "Development and rotating test of the high temperature superconducting motor with on-board cryocooler", Journal of the Korea Institute of Applied Superconductivity and Cryogenics, vol.13 no.1, pp.12-16, 2011.03

29. Y Kim, Sangkwon Jeong, "Numerical simulation and its verification for an active magnetic regenerator", INTERNATIONAL JOURNAL OF REFRIGERATION-REVUE INTERNATIONALE DU FROID, vol.34 no.1, pp.204-215, 2011.01 ; DOI(http://dx.doi.org/10.1016/j.ijrefrig.2010.07.003)

30. Sangkwon Jeong, SJ Song, S Mochizuki, "Preface", JOURNAL OF MECHANICAL SCIENCE AND TECHNOLOGY, vol.25 no.1, pp.3-3, 2011

31. JH Kim, J Jung, Baek Seung Whan, Sangkwon Jeong, "Hydraulic performance of a microchannel PCHE", APPLIED THERMAL ENGINEERING, vol.30pp.2157-2162, 2010.10 ; DOI(http://dx.doi.org/10.1016/j.applthermaleng.2010.05.028)

32. Tae Kyung Ki, Sangkwon Jeong, "Optimal design of the pulse tube refrigerator with slit-type heat exchangers", CRYOGENICS, vol.50pp.608-614, 2010.09

33. Sangkwon Jeong, Mansu Seo, "Analysis of self-pressurization phenomenon of cryogenic fluid storage tank with thermal diffusion model", CRYOGENICS, vol.50 no.9, pp.549-555, 2010.09

34. Sangkwon Jeong, Youngkwon Kim, Jisung Lee, "Transient thermodynamic behavior of cryogenic mixed fluid thermosiphon and its cool-down time estimation", CRYOGENICS, vol.50pp.352-358, 2010.05 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2010.02.001)

35. Y Kim, Sangkwon Jeong, "Thermal anchoring of conduction-cooled current leads for superconductivity applications near liquid nitrogen temperature", CRYOGENICS, vol.50 no.4, pp.287-291, 2010.04 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2009.12.006)

36. Kyu Wan Hwang, Sangkwon Jeong, "Pressure loss effect on recuperative heat exchanger and its thermal performance", CRYOGENICS, vol.50pp.13-17, 2010.01 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2009.10.002)

37. J Ko, Sangkwon Jeong, Tae Kyung Ki, "Effect of pulse tube volume on dynamics of linear compressor and cooling performance in Stirling-type pulse tube refrigerator", CRYOGENICS, vol.50pp.1-7, 2010.01 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2009.08.008)

38. Sehwan In, Sangkwon Jeong, "Flow boiling heat transfer characteristics of R123 and R134a in a micro-channel", INTERNATIONAL JOURNAL OF MULTIPHASE FLOW, vol.35 no.11, pp.987-1000, 2009.11 ; DOI(http://dx.doi.org/10.1016/j.ijmultiphaseflow.2009.07.003)

39. Youngkwon Kim, Y Han, Sangkwon Jeong, JP Lee, S Jung, Junseok Ko, , T Sung, "Experimental study on the double-evaporator thermosiphon for cooling HTS (high temperature superconductor) system", CRYOGENICS, vol.49 no.8, pp.390-397, 2009.08 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2009.04.004)

40. CH Lee, Sangkwon Jeong, "The 7(th) JSME-KSME Thermal and Fluids Engineering Conference TFEC 2008 Sapporo, Japan, October 2008 Preface", JOURNAL OF MECHANICAL SCIENCE AND TECHNOLOGY, vol.23pp.1763-1763, 2009.07

41. Junseok Ko, S Jung, J Lee, Y Han, T Sung, B Park, Sangkwon Jeong, H Kim, "Double-Evaporator Thermosiphon for Cooling 100 kWh Class Superconductor Flywheel Energy Storage System Bearings", IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.19 no.3, pp.2103-2106, 2009.06 ; DOI(http://dx.doi.org/10.1109/TASC.2009.2020573)

42. KC Seong, EY Lee, HJ Kim, Sangkwon Jeong, K Sim, S Kim, JH Bae, "Thermal characteristics of conduction cooled 600 kJ HTS SMES system", CRYOGENICS, vol.49pp.294-298, 2009.06

43. K Lee, M Noh, B Kim, JE Yi, J Ko, Seung Seob Lee, Sangkwon Jeong, "Micro-energy storage system using permanent magnet and high-temperature superconductor", SENSORS AND ACTUATORS A-PHYSICAL, vol.143 no.1, pp.106-112, 2008.05

44. Sangkwon Jeong, "Buffered rotary valve system of GM-type pulse tube refrigerator", ADVANCES IN CRYOGENICS ENGINEERING, vol.53pp.93-100, 2008.03

45. SM Choi, S Lee, Sangkwon Jeong, "Current imbalance in superconducting strand-to-strand joint and its relaxation in multistage cable-in-conduit conductor", PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS, vol.468 no.5, pp.417-425, 2008.03 ; DOI(http://dx.doi.org/10.1016/j.physc.2008.01.002)

46. Sangkwon Jeong, J Ko, "Analysis on the stirling-type pulse tube refrigerator in consideration of dynamics of linear compressor", CRYOGENICS, vol.48pp.68-76, 2008.01 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2007.12.002)

47. S Kim, K Sim, K Sung, Sangkwon Jeong, "Investigation on the stability evaluation of multi-strand superconducting cable related with ramp-rate limitation", PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS, vol.466pp.82-95, 2007.11 ; DOI(http://dx.doi.org/10.1016/j.physc.2007.06.004)

48. Sangkwon Jeong, J Jung, "Optimal pulse tube volume design in GM-type pulse tube refrigerator", CRYOGENICS, vol.47 no.9-10, pp.510-516, 2007.09 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2007.06.001)

49. K Lee, Seung Seob Lee, B Kim, J Ko, Sangkwon Jeong, "Advanced design and experiment of a small-sized flywheel energy storage system using a high-temperature superconductor bearing", SUPERCONDUCTOR SCIENCE & TECHNOLOGY, vol.20pp.634-639, 2007.07 ; DOI(http://dx.doi.org/10.1088/0953-2048/20/7/009)

50. Y Chu, S Baek, K Park, K Kim, H Yonekawa, Q Wang, J Kim, Sangkwon Jeong, W Chung, S Lee, SH Park, "Analysis of the KSTAR central solenoid model coil experiment", IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.17pp.1338-1341, 2007.06

51. J Jung, Sangkwon Jeong, "Effect of flow mal-distribution on effective NTU in multi-channel counter-flow heat exchanger of single body", CRYOGENICS, vol.47pp.232-242, 2007.04 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2007.01.004)

52. N Cho, O Kwon, Y Kim, Sangkwon Jeong, "Investigation of helium injection cooling to liquid oxygen under pressurized condition", CRYOGENICS, vol.46 no.11, pp.778-793, 2006.11 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2006.07.004)

53. Sangkwon Jeong, Y Kim, C Noh, H Jin, S Kim, "Experimental investigation on the detachable thermosiphon for conduction-cooled superconducting magnets", CRYOGENICS, vol.46 no.10, pp.705-710, 2006.10 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2006.05.005)

54. K Jang, Sangkwon Jeong, "Experimental investigation on convective heat transfer mechanism in a scroll compressor", INTERNATIONAL JOURNAL OF REFRIGERATION-REVUE INTERNATIONALE DU FROID, vol.29 no.5, pp.744-753, 2006.08 ; DOI(http://dx.doi.org/10.1016/j.ijrefrig.2005.12.002)

55. K Nam, Sangkwon Jeong, "Development of parallel wire regenerator for cryocoolers", CRYOGENICS, vol.46 no.4, pp.278-287, 2006.04 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2005.12.005)

56. Sangkwon Jeong, B Kim, SS Lee, J Ko, "Experiment and analysis for a small-sized flywheel energy storage system with a high-temperature superconductor bearing", SUPERCONDUCTOR SCIENCE & TECHNOLOGY, vol.19pp.217-222, 2006.02 ; DOI(http://dx.doi.org/10.1088/0953-2048/19/2/011)

57. O Kwon, N Cho, Y Kim, Sangkwon Jeong, "Investigation of helium injection cooling to liquid oxygen propellant chamber", CRYOGENICS, vol.46pp.132-142, 2006.02

58. Sangkwon Jeong, K Nam, "Investigation of oscillating flow friction factor for cryocooler regenerator considering cryogenic temperature effect", CRYOGENICS, vol.45 no.12, pp.733-738, 2005.12 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2005.07.003)

59. HS Kim, Sangkwon Jeong, YK Kwon, JW Nam, JH Jung, "Investigation of on-board hybrid pulse tube cryocooler for high temperature superconducting rotor", IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.15pp.2190-2193, 2005.06

60. J Ko, CY Song, SJ Kim, Sangkwon Jeong, SS Lee, B Kim, E Lee, "An integrated micro HTS system for energy storage and attitude control for three-axis stabilized nanosatellites", IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.15 no.2, pp.2324-2327, 2005.06

61. K Kim, CS Yoon, WH Chung, JS Bak, QL Wang, YK Oh, Sangkwon Jeong, S Park, GS Lee, "Thermo-hydraulic analysis of the KSTAR central solenoid model coil", IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.15 no.2, pp.1411-1414, 2005.06 ; DOI(http://dx.doi.org/10.1109/TASC.2005.849108)

62. K Nam, Sangkwon Jeong, "Novel flow analysis of regenerator under oscillating flow with pulsating pressure", CRYOGENICS, vol.45 no.5, pp.368-379, 2005.05 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2005.01.001)

63. JH Jung, Sangkwon Jeong, "Expansion efficiency of pulse tube in pulse tube refrigerator including shuttle heat transfer effect", CRYOGENICS, vol.45 no.5, pp.386-396, 2005.05 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2005.01.005)

64. KJ Cho, SH Oh, Y Kim, S In, Sangkwon Jeong, "Experimental investigation of liquid helium pressurization method for liquid propellant rocket", JSME INTERNATIONAL JOURNAL SERIES B-FLUIDS AND THERMAL ENGINEERING , vol.48 no.2, pp.300-304, 2005.05

65. K Jang, Sangkwon Jeong, J Ko, "A novel concept of rapid cooling method of refrigeration system", INTERNATIONAL JOURNAL OF REFRIGERATION-REVUE INTERNATIONALE DU FROID, vol.28 no.2, pp.176-182, 2005.03 ; DOI(http://dx.doi.org/10.1016/j.ijrefrig.2004.08.011)

66. S In, Sangkwon Jeong, YM Park, "The size optimization of the liquid helium pressurant tank for liquid propellant rocket", ON THE CONVERGENCE OF BIO-INFORMATION-, ENVIRONMENTAL-, ENERGY-, SPACE- AND NANO-TECHNOLOGIES, PTS 1 AND 2 BOOK SERIES: KEY ENGINEERING MATERIALS, vol.277-279 no.1, pp.776-782, 2005

67. AJ Jiao, Sangkwon Jeong, HB Ma, "Heat transfer characteristics of cryogenic helium gas through a miniature tube with a large temperature difference", CRYOGENICS, vol.44 no.12, pp.859-866, 2004.12 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2004.05.005)

68. S Kim, Sangkwon Jeong, "Investigation on the stability of two-strand superconducting cable related with ramp-rate limitation", PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS, vol.407 no.1-2, pp.62-72, 2004.08 ; DOI(http://dx.doi.org/10.1016/j.physc.2007.06.004)

69. S Kim, Y Kim, Sangkwon Jeong, J Jung, N Cho, "Two-phase flow characteristics of liquid oxygen flow in low pressure liquid rocket engine", CRYOGENICS, vol.44 no.6-8, pp.493-500, 2004.06

70. W Chung, QL Wang, Sangkwon Jeong, CS Yoon, H Park, K Kim, "Operating characteristics of the KSTAR superconducting TF coil", IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.14 no.2, pp.1334-1337, 2004.06

71. S In, Sangkwon Jeong, H Kim, "Investigation on liquid helium pressurization process using a heater in a liquid propellant rocket", CRYOGENICS, vol.44 no.6-8, pp.467-474, 2004.06 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2004.02.010)

72. S Kim, Sangkwon Jeong, "Investigation of heat transfer effect on ramp-rate limitation of superconducting cable", IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.14 no.2, pp.1365-1368, 2004.06

73. Sangkwon Jeong, "How difficult is it to make a micro refrigerator?", INTERNATIONAL JOURNAL OF REFRIGERATION-REVUE INTERNATIONALE DU FROID, vol.27pp.309-313, 2004.05

74. S In, Sangkwon Jeong, "Investigation on vapor-cooled current leads operating in a pulse mode", CRYOGENICS, vol.44 no.4, pp.241-248, 2004.04 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2003.11.007)

75. SR Choi, KW Nam, Sangkwon Jeong, "Investigation on the pressure drop characteristics of cryocooler regenerators under oscillating flow and pulsating pressure conditions", CRYOGENICS, vol.44 no.3, pp.203-210, 2004.03 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2003.11.006)

76. Sangkwon Jeong, M Takayasu, "Ramp-rate limitation experiment using induced current method. Part 2: analysis", CRYOGENICS, vol.44 no.2, pp.109-114, 2004.02 ; DOI(http://dx.doi.org/10.1016/j.cryogenics.2003.08.004)

77. Sangkwon Jeong, "Study of Random Wire Type Regenerators for Stirling Cryocoolers", ADVANCES IN CRYOGENIC ENGINEERING, vol.49 no.0, pp.1154-1160, 2004.01

78. Sangkwon Jeong, "Development of Recuperator for 4 K Pulse Tube Refrigerators Operating at Opposite Phases", ADVANCDS IN CRYOGENIC ENGINEERING, vol.49 no.0, pp.1584-1591, 2004.01

79. K Nam, Sangkwon Jeong, "Measurement of cryogenic regenerator characteristics under oscillating flow and pulsating pressure", CRYOGENICS, vol.43 no.10, pp.575-581, 2003.10

80. S Kim, Sangkwon Jeong, "Current redistribution and thermal history due to Ramp-Rate Limitation of a superconducting cable", IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.13 no.2, pp.1722-1725, 2003.06

81. Sangkwon Jeong, S Kim, S In, "Superconducting micro flux pump using a cryotron-like switch", IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.13 no.2, pp.1558-1561, 2003.06 ; DOI(http://dx.doi.org/10.1109/TASC.2003.812773)

82. Sangkwon Jeong, JH Jung, "Modified Roebuck compression device for cryogenic refrigeration system of superconducting rotating machine", CRYOGENICS, vol.42 no.8, pp.501-507, 2002.08

83. HC Park, ES Jeong, Sangkwon Jeong, "Two-dimensional model for tapered pulse tubes Part 3: unsteady components of second-order mass flux and temperature", CRYOGENICS, vol.42 no.8, pp.485-493, 2002.08

84. Sangkwon Jeong, "Experimental study on the regenerator under actual operating conditions", ADVANCES IN CRYOGENIC ENGINEERING, vol.47 no.0, pp.977-984, 2002.07

85. Sangkwon Jeong, "Superconducting flux pump for high-temperature superconductor insert coils of NMR magnets", ADVANCES IN CRYOGENIC ENGINEERING, vol.47 no.0, pp.441-448, 2002.07

86. Sangkwon Jeong, M Takayasu, "Ramp-rate limitation experiment using induced current method. Part 1: experimental results", CRYOGENICS, vol.42 no.2, pp.79-87, 2002.02

87. MH Cho, KI You, JH Choi, YS Jung, JW Sa, CH Choi, S Baang, BH Oh, HS Kang, YS Hwang, DI Choi, "Design and construction of the KSTAR tokamak", NUCLEAR FUSION, vol.41 no.10, pp.1515-1523, 2001.10

88. Sangkwon Jeong, S Kim, TK Ko, "Experimental investigation to overcome the ramp-rate limitation of CICC superconducting magnets", IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.11 no.1, pp.1692-2, 2001.03

89. Sangkwon Jeong, SH Baek, FS Jeong, "Two-dimensional model for tapered pulse tubes. Part 1: theoretical modeling and net enthalpy flow", CRYOGENICS, vol.40 no.6, pp.379-385, 2000.06

90. Sangkwon Jeong, ES Jeong, SH Baek, "Two-dimensional model for tapered pulse tubes. Part 2: mass streaming and streaming-driven enthalpy flow loss", CRYOGENICS, vol.40 no.6, pp.387-392, 2000.06

91. Sangkwon Jeong, DJ Park, HM Chang, "Effect of gap flow on shuttle heat transfer", CRYOGENICS, vol.40 no.3, pp.159-166, 2000.03

92. Hong-Young Chang, KW Cho, JW Choi, NI Hur, GH Kim, MC Kyum, JM Lee, HC Ri, SJ Yoo, Wonho Choe, GN Kim, "The KSTAR project: An advanced steady state superconducting tokamak experiment", NUCLEAR FUSION, vol.40pp.575-582, 2000.03

93. Sangkwon Jeong, "Modeling of the induced loop curent in CICC(Cable-In-Conduit Conductor) superconducting magnet", ADVANCES IN CRYOGENIC ENGINEERING, vol.46 no.0, pp.1059-1066, 2000.01

94. C Lee, Sangkwon Jeong, "An optimized rotating helium-recondensing system using Roebuck refrigerators", CRYOGENICS, vol.39 no.6, pp.557-564, 1999.06

95. K Nam, S Kim, Sangkwon Jeong, "Current measurements of the individual strands in CICC magnet", IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.9 no.2, pp.578-1, 1999.06

96. Sangkwon Jeong, "Entropy generation minimization on CIC (Cable-In-Conduit) superconductor design", CRYOGENICS, vol.39 no.1, pp.35-41, 1999.01

97. VS Vysotsky, VV Vysotskaia, PC Michael, M Takayasu, Sangkwon Jeong, "Voltage spikes in superconducting Cable-In-Conduit Conductor under ramped magnetic fields. Part 2: Analysis of loop inductances and current variations associated with the spikes", CRYOGENICS, vol.38 no.4, pp.387-395, 1998.04 ; DOI(http://dx.doi.org/10.1016/S0011-2275(98)00025-3)

98. Sangkwon Jeong, JH Schultz, VS Vysotsky, M Takayasu, PC Michael, JV Minervini, "Measurements of current distribution in a 12-strand Nb3Sn cable-in-conduit conductor", CRYOGENICS, vol.37 no.8, pp.431-439, 1997.08 ; DOI(http://dx.doi.org/10.1016/S0011-2275(97)00041-6)

99. Sangkwon Jeong, JV Minervini, VS Vysotsky, M Takayasu, "Superconducting pulse coil set for stability test of superconducting cables", IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.7 no.2, pp.211-214, 1997.06 ; DOI(http://dx.doi.org/10.1109/77.614469)

100. Sangkwon Jeong, W Warnes, PC Michael, JH Schultz, M Takayasu, V Vysotsky, S Shen, "Voltage spike observation in superconducting cable-in-conduit conductor under ramped magnetic fields .1. Experiment", CRYOGENICS, vol.37 no.6, pp.299-304, 1997.06 ; DOI(http://dx.doi.org/10.1016/S0011-2275(97)00018-0)

101. JH Schultz, VS Vysotsky, JV Minervini, Sangkwon Jeong, PC Michael, M Takayasu, "Current distribution in a 12 strand Nb3Sn CICC and its influence on ramp rate limitation", IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.7 no.2, pp.774-777, 1997.06

102. Sangkwon Jeong, PC Michael, VS Vysotsky, M Takayasu, JH Schultz, JV Minervini, "Spike voltages seen during quick charge ramp limitation tests on Nb3Sn cable-in-conduit conductors", IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.7 no.2, pp.150-154, 1997.06 ; DOI(http://dx.doi.org/10.1109/77.614444)

103. W Warnes, S Shen, Sangkwon Jeong, M Takayasu, V Vysotsky, PC Michael, JH Schultz, "Ramp-rate limitation experiments using a hybrid superconducting cable", CRYOGENICS, vol.36 no.8, pp.623-629, 1996.08 ; DOI(http://dx.doi.org/10.1016/0011-2275(96)00057-4)

104. Sangkwon Jeong, "Experimental Study of AC Losses in a Rutherford Type Cable", ADVANCES IN CRYOGENIC ENGINEERING, vol.42 no.0, pp.1209-1216, 1996.01

105. M TAKAYASU, JH SCHULTZ, JV MINERVINI, Sangkwon Jeong, "RAMP-RATE LIMITATION TEST OF CABLE-IN-CONDUIT CONDUCTORS WITH SUPERCRITICAL HELIUM", IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.5 no.2, pp.210-213, 1995.06 ; DOI(http://dx.doi.org/10.1109/77.402526)

106. Sangkwon Jeong, JL SMITH, "OPTIMUM TEMPERATURE STAGING OF CRYOGENIC REFRIGERATION SYSTEM", CRYOGENICS, vol.34 no.11, pp.929-933, 1994.11 ; DOI(http://dx.doi.org/10.1016/0011-2275(94)90078-7)

107. JL SMITH, Y IWASA, Sangkwon Jeong, "TANDEM MAGNETIC REFRIGERATOR FOR 1.8-K", CRYOGENICS, vol.34 no.4, pp.263-269, 1994.04 ; DOI(http://dx.doi.org/10.1016/0011-2275(94)90105-8)

108. Sangkwon Jeong, "Persistent current decay of a superconducting coil in an ", ADVANCES IN CRYOGENIC ENGINEERING, vol.39 no.0, pp.17-25, 1994.01

109. Sangkwon Jeong, "Magnetically augmented regeneration in Striling cryocooler", ADVANCES IN CRYOGENIC ENGINEERING, vol.39 no.0, pp.1399-1405, 1994.01