

## CURRICULUM VITAE

### Personal Information:

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### Academic Qualifications:

- Ph.D. in Engineering, Mechanical Systems Engineering Department, Faculty of Engineering, Tokyo University of Agriculture and Technology, Japan, 1997.
- M.Sc. in Applied Mathematics, Faculty of Science, Dhaka University, Bangladesh, 1990 (First Class).
- B.Sc. (Hon's) in Mathematics, Faculty of Science, Dhaka University, Bangladesh, 1987 (First Class).

### Appointments:

- Professor, Program for Leading Graduate Schools, Green Asia Education Center, Kyushu University (March 2013 - ).
- Professor, Thermophysical Properties Division, International Institute for Carbon-Neutral Energy Research (WPI-I2CNER), Kyushu University (December 2010 - ).
- Professor, Department of Mechanical Engineering, Faculty of Engineering, Kyushu University (February 2010 – March 2013).
- Professor, International Education Center, Kyushu University (February 2010 – March 2013).
- Senior Research Fellow, Mechanical Engineering Department, National University of Singapore (January 2009 – February 2010).
- Visiting Professor, Research and Education Center of Carbon Resources, Kyushu University, Japan (January 2009 – March 2010).
- Associate Professor, Interdisciplinary Graduate School of Engineering Sciences, Kyushu University, Japan (April 2006 – December 2008).
- Associate Professor, Institute for Materials Chemistry and Engineering, Kyushu University, Japan (April 2001 – March 2006).
- Associate Professor, Department of Mechanical Systems Engineering Sciences, Tokyo University of Agriculture and Technology, Japan (July 2000 – March 2001).

- Assistant Professor, Department of Mechanical Systems Engineering Sciences, Tokyo University of Agriculture and Technology, Japan (April 1997 – June 2000).
- Research Scholar, Department of Mechanical Systems Engineering Sciences, Tokyo University of Agriculture and Technology, Japan (January 1993 – March 1994).
- Bose Fellow, Bose Center for Advanced Study in Natural Sciences, University of Dhaka, Bangladesh (January 1991 – December 1992).  
*Also completed M. Phil. (Part I), Major: Fluid Dynamics.*

### Professional Activities

- Executive Member, Heat Pump and Thermal Storage Technology Center of Japan (HPTCJ), Low Temperature Heat Utilization Research Group.
- Member, The American Society of Mechanical Engineers (ASME), (#7123912).
- Member, the Japan Society of Mechanical Engineers (JSME), (#0407059).
- Member, Japanese Society of Refrigeration and Air Conditioning Engineers (JSRAE), (#11881).
- Member, Japan Society of Thermophysical Properties, (#1828289007).
- Life Member, Indian Society for Heat and Mass Transfer, (#983).
- Life Member, Bangladesh Mathematical Society, (#248).
- Life Member, Japanese Universities Alumni Association in Bangladesh (JUAAB).
- Honorary Member of Research Board of Advisors, American Biographical Institute, USA
- Executive Member, Center for Environmental Protection and Energy Conservation by Multiple and Advanced Utilization of Coal, Kyushu University, Japan.

### Editorial Activities

- Editor-in-Chief, Evergreen- Joint Journal of Novel Carbon Resource Sciences & Green Asia Strategy.
- Managing Guest Editor, Applied Thermal Engineering, Special Issue: <http://ees.elsevier.com/ate/>
- Editorial Advisory Board, Applied Thermal Engineering, <http://ees.elsevier.com/ate/>
- Honourary Editorial Advisor, Ganit Journal of the Bangladesh Mathematical Society, <http://bdmathsociety.org/>
- Editorial Board Member, Advances in Mechanical Engineering, Hindawi Publishing Corporation, <http://www.hindawi.com/journals/ame/> (Journal homepage) <http://www.hindawi.com/journals/ame/editors.html> (Current Editors).
- Editorial Advisory Board Member, Open Mechanical Engineering Journal (OMEJ), ISSN: 1874-155X, <http://www.bentham.org/open/tomej/>, Open Mechanical Engineering Reviews (OMER), ISSN: 1874-1576, <http://www.bentham.org/open/omer/>, Open Mechanical Engineering Letters (OMEL), ISSN: 1874-1568, <http://www.bentham.org/open/omel/> Bentham Science Publishers, USA.

- Guest Editor, Heat Transfer Engineering Journal (<http://www.ingentaconnect.com/content/tandf/uhte>), ISSN: 0145-7632, Special Issue “Application of Sorption Technologies for Energy Efficiency”.
- Editorial Board Member, Fundamental Journal of Thermal Science and Engineering, ([http://www.frdint.com/fundamental\\_journal\\_thermal\\_science\\_engineering\\_edit.html](http://www.frdint.com/fundamental_journal_thermal_science_engineering_edit.html)) ISSN: 2249-975X

### International Conference Organizations

- Organizer: Global Strategy for Green Asia – MJIT Joint Workshop, Malaysia-Japan International Institute of Technology, Kuala Lumpur, February 12, 2014.
- General Chairman: International Conference on Innovative Materials for Processes in Energy Systems, IMPRES2013, Fukuoka, Japan, September 4-6, 2013.
- Advisory Board Member: International Conference on Green Energy & Technology, ICGET, Kitakyushu, Japan, August 24-26, 2013.
- General Chairman: International Conference on Innovative Materials for Processes in Energy Systems for Fuel Cells, Heart Pumps and Sorption systems, IMPRES2010, Singapore, November 30-December 2, 2010.
- General Co-chair: International Conference on Environmental Aspects of Bangladesh (ICEAB10), Kitakyushu, Japan, September 4, 2010.
- Executive Committee Member, 10<sup>th</sup> Cross Straits Symposium on Materials, Energy and Environmental Engineering (CSS10), Fukuoka, Japan, November 2008.
- General Secretary, The 8<sup>th</sup> Asian Thermophysical Properties Conference, Fukuoka, Japan, August 21-24, 2007.
- Executive Committee Member, International Seminar on the Future of Heat Cascading and Energy Systems (Dedicated to 60<sup>th</sup> Birth Anniversary of Prof. Takao Kashiwagi, December 11, 2006, Tokyo, Japan.
- General Secretary, International Seminar on Thermally Powered Sorption Systems, Fukuoka, Japan, December 4-5, 2003.

### Awards:

1. ***ITEX Silver Medal*** for the invention “Innovative Solar adsorption Chiller”, at (23<sup>rd</sup> International Invention, Innovation and Technology Exhibition, Malaysia), Kuala Lumpur, May 2012.
2. ***Best Presentation Paper Award***, The 5th Asian Conference on Refrigeration and Air Conditioning (ACRA2010), Tokyo, Japan (Award issued on 1 March 2012).
3. ***IES Prestigious Engineering Achievement Award 2009*** for the Development of Adsorption Desalination cum Cooling Technology
4. ***Outstanding Paper Award***, The 9<sup>th</sup> Cross Straits Symposium on Materials, Energy and Environmental Engineering, Pohang, South Korea, 2007.
5. ***Outstanding Paper Award***, The 6<sup>th</sup> Cross Straits Symposium on Materials, Energy and Environmental Engineering, Pohang, South Korea, 2004.
6. ***Selected as One of the Best Ten Papers***, International Ab-Sorption Heat Pump Conference, Montreal, Canada, 1996.

7. **Best Paper Award**, Japanese Society of Refrigeration and Air Conditioning Engineers (JSRAE), 1995.

### List of Publications:

#### Book and Book Chapters:

1. **B.B. Saha** and I.I. El-Sharkawy, "Thermally Powered Adsorption Cooling: Recent Trends and Applications", Chapter 2 in *Heat Pipes and Solid Sorption Transformations: Fundamentals and Practical Applications*, editors: L.L. Vasiliev and Sadik Kakac, ISBN: 978-1466564145, CRC Press, 2013.
2. **B.B. Saha**, M. Koyama, Y. Takata, Y. Hamamoto, T. Miyazaki, M. Kohno and K. Ito, "Innovative Materials for Processes in Energy Systems" *Chemical Science & Engineering Series 3*, Touka Shobo, ISBN: 978-4-88757-173-0, Japan, September 2013.
3. A. Chakraborty, K. Thu, **B.B. Saha** and K.C. Ng, "Adsorption-Desalination Cycle", Chapter 5 in *Advances in Water Desalination*, pp. 377-452, John Wiley & Sons., Editor: Noam Lior, ISBN: 978-0-470-05459-8, USA, November 2012.
4. **B.B. Saha** and K.C. Ng, "Advances in Adsorption Technology" *Chemistry Research and Application Series*, Nova Science Publishers Inc., ISBN: 978-1-60876-833-2, NY, July 2011.
5. **B.B. Saha**, A. Chakraborty and K.C. Ng, "Innovative Materials for Processes in Energy Systems", Research Publishing, ISBN: 978-981-08-7614-2, Singapore, December 2010.
6. K.C. Ng, I.I. El-Sharkawy, **B.B. Saha** and A. Chakraborty, "Adsorption Desalination – a Novel Method", Chapter 9 in *Handbook of Environmental Engineering, Vol. 13 – Membrane and Desalination Technologies*, Springer Science, pp. 391-431, N.J. USA, ISBN: 978-1-58829-940-6, Eds. L.K. Wang, J.P. Chen, Y-T Hung and N.K. Shammas, 2011.
7. **B.B. Saha**, A. Chakraborty, K.C. Ng and I.I. El-Sharkawy, "Study on Adsorption and Thermoelectric Cooling Systems using Boltzmann Transport Equation Approach", Chapter 2 in *Thermal Engineering Research Developments, Series: Mechanical Engineering Theory and Applications*, Nova Science Publishers Inc., ISBN: 978-1-60741-497-1, Eds. J. Evgova and O. Kostadinov, 2010.
8. K.C. Ng, **B.B. Saha**, S. Koyama and W.G. Chun, "A Methodology for Evaluating the Solar Thermal Power Rating and Carbon Dioxide Emission Savings from a Solar Hot Water Plant", Appendix 1 in *Ecological Architectural Series 7, Natural Energy and Ecological Technology*, pp. 233-241, ISBN: 89-91004-80-6, GoWon Publishing Inc., Seoul, Korea, January 2007.
9. A. Akisawa, **B.B. Saha**, et al., "Desiccant Air Conditioning System (in Japanese)", ISBN: 4-8190-1811-6, Nihon Kogyo Shippun-Sha, Tokyo, Japan, December 2006.
10. A. Akisawa, **B.B. Saha**, Y. Hamamoto and T. Miyazaki (Editors), "Proceedings of the International Seminar on the Future of Heat Cascading and Energy Systems", Tokyo, Japan, December 2006.
11. **B.B. Saha**, A. Akisawa and S. Koyama (Editors), "Thermally Powered Sorption Technology", ISBN: 4-9901921-0-9 C3353, ISTEPST, Fukuoka, Japan, December 2003.
12. E. Jochem (Convening Lead Author), **B.B. Saha** (Lead Author) et al., "Energy End Use Efficiency", Chapter 6 in *World Energy Assessment: Energy and the Challenge of Sustainability*, pp. 172-217, ISBN 92-1-126126-0, United Nations Development Programme, United Nations Department of Economic and Social Affairs, and World

Energy Council, New York, 2001.

### Peer Reviewed Journals:

1. I.I. El-Sharkawy, H. AbdelMeguid and B.B. Saha, “Potential application of solar powered adsorption cooling systems in the Middle East”, *Applied Energy*, **Vol. 126**, pp. 235–245, 2014.
2. M.W. Shahzad, K.C. Ng, K. Thu, **B.B. Saha**, W.G. Chun, “Multi effect desalination and adsorption desalination (MEDAD): A hybrid desalination method”, *Applied Thermal Engineering*, DOI: [10.1016/j.applthermaleng.2014.03.064](https://doi.org/10.1016/j.applthermaleng.2014.03.064), (available online), 2014.
3. K. Uddin, I.I. El-Sharkawy, T. Miyazaki, **B.B. Saha** and S. Koyama, “Thermodynamic analysis of adsorption cooling cycle using ethanol-surface treated Maxsorb III pairs”, *EVERGREEN Joint Journal of Novel Carbon Resource Sciences & Green Asia Strategy*, **Vol. 1**, No. 1, pp. 25-31, 2014.
4. M. Sultan, T. Miyazaki, S. Koyama and **B.B. Saha**, “Utilization of desiccant air-conditioning system for improvement in greenhouse productivity: A neglected area of research in Pakistan”, *International Journal of Environment*, **Vol. 4**, No. 1, pp. 1-10, 2014.
5. I.I. El-Sharkawy, K. Uddin, T. Miyazaki, **B.B. Saha**, S. Koyama, J. Miyawaki and S.H. Yoon “Adsorption of ethanol onto parent and surface treated activated carbon powders”, *International Journal of Heat and Mass Transfer*, **Vol. 73**, pp. 445–455, 2014.
6. S. Jribi, **B.B. Saha**, S. Koyama and H. Bentaher, “Modeling and simulation of an activated carbon–CO<sub>2</sub> four bed based adsorption cooling system” *Energy Conversion and Management*, **Vol. 78**, pp. 985-991, 2014.
7. A.F.M.M. Rahman, Y. Ueda, A. Akisawa, T. Miyazaki and **B.B. Saha**, “Design and performance of four-stage adsorption system”, *International Journal of Research in Engineering and Science (IJRES)*, **Vol. 2**, No 1. pp. 1-10, January 2014.
8. K. Habib, B. Choudhury, P.K. Chatterjee and **B.B. Saha**, “Study on a solar heat driven dual-mode adsorption chiller”, *Energy*, **Vol. 63**, pp. 133-141, 2013.
9. K. Uddin, T. Miyazaki, S. Koyama and **B.B. Saha**, “Performance investigation of adsorption–compression hybrid refrigeration systems”, *International Journal of Air-Conditioning and Refrigeration*, **Vol. 21**, No. 4, 1350024-1 to 1350024-12, 2013.
10. A.A. Askalany, **B.B. Saha**, K. Uddin, T. Miyazaki, S. Koyama, K. Srinivasan, and I. M. Ismail, “Adsorption Isotherms and Heat of Adsorption of Difluoromethane on Activated Carbons”, *J. Chem. Eng. Data*, **Vol. 58**, No. 10, pp. 2828–2834, 2013.
11. K. Thu, H. Yanagi, **B.B. Saha** and K.C. Ng, “Performance analysis of a low-temperature waste heat driven adsorption desalination prototype”, *International Journal of Heat and Mass Transfer*, **Vol. 65**, pp. 662–669, 2013.
12. I.I. El-Sharkawy, H. AbdelMeguid and **B.B. Saha**, “Towards an optimal performance of adsorption chillers: Reallocation of adsorption/desorption cycle times”, *International Journal of Heat and Mass Transfer*, **Vol. 63**, pp. 171–182, 2013.
13. S.T. Oh, **B.B. Saha**, K. Kariya, Y. Hamamoto and H. Mori, “Fuel cell waste heat powered adsorption cooling systems”, *International Journal of Air-Conditioning and Refrigeration*, **Vol. 21**, No. 2, 1350010-1 to 1350010-10, 2013.
14. A.A. Askalany, **B.B. Saha**, M.S. Ahmed and I.M. Ismail, “Adsorption cooling

- system employing granular activated carbon-R134a pair for renewable energy applications”, *International Journal of Refrigeration*, **Vol. 36**, No. 3, pp. 1037-1044, 2013.
15. **B.B. Saha** and K. Srinivasan, “Selected Papers from the International Symposium on Innovative Materials for Processes in Energy Systems 2010 (IMPRES2010): Part I”, *Heat Transfer Engineering*, **Vol. 34**, Nos. 11-12, pp. 887-888, 2013.
  16. A.F.M.M. Rahman, T. Miyazaki, Y. Ueda, **B.B. Saha** and A. Akisawa, “Performance comparison of three-bed adsorption cooling system with optimal cycle time setting”, *Heat Transfer Engineering*, **Vol. 34**, Nos. 11-12, pp. 938-947, 2013.
  17. A.A. Askalany, M. Salem, I.M. Ismael, A.H.H. Ali, M.G. Morsy and **B.B. Saha**, “An overview on adsorption pairs for cooling”, *Renewable and Sustainable Energy Reviews*, **Vol. 19**, pp. 565-572, 2013.
  18. A.F.M.M. Rahman, T. Miyazaki, Y. Ueda, **B.B. Saha** and A. Akisawa, “Design and performance of an four-bed, three-stage adsorption cycle”, *Energies*, **Vol. 6**, pp. 1365-1384, 2013.
  19. **B.B. Saha** and K.C. Ng, “Special issue: Chemical and sorption heat pumps, Selected papers from the International Symposium on Innovative Materials for Processes in Energy Systems 2010 (IMPRES2010) – for fuel cells, heat pumps and sorption systems”, *Applied Thermal Engineering*, Editorial, **Vol. 50**, pp. 35-36, 2013.
  20. K. Srinivasan, P. Dutta, **B.B. Saha**, K.C. Ng and M. Prasad “Realistic minimum desorption temperatures and compressor sizing for activated carbon + HFC 134a adsorption coolers”, *Applied Thermal Engineering*, **Vol. 51**, pp. 551-559, 2013.
  21. R.K. Majumder, M.A. Halim, J. Shimada, **B.B. Saha**, A. Zahid, M.Q. Hasan and M.S. Islam, “Hydrochemistry and isotopic studies to identify Ganges River and riverbank groundwater interaction, southern Bangladesh”, *Arabian Journal of Geosciences*, **Vol. 6**, No. 12, pp. 4585-4591, 2013.
  22. B. Choudhury, **B.B. Saha**, P.K. Chatterjee and J.P. Sarkar, “An overview of developments in adsorption refrigeration systems towards a sustainable way of cooling”, *Applied Energy*, **Vol. 104**, pp. 554-567, 2013.
  23. K. Thu, A. Chakraborty, Y.D. Kim, A. Myat, **B.B. Saha** and K.C. Ng, “Numerical simulation and performance investigation of an advanced adsorption desalination cycle”, *Desalination*, **Vol. 308**, No. 2, pp. 209-218, 2013.
  24. K.C.A. Alam, **B.B. Saha** and A. Akisawa, “Adsorption cooling driven by solar collector: A case study for Tokyo solar data”, *Applied Thermal Engineering*, **Vol. 50**, No. 2, pp. 1603-1609, 2013.
  25. K. Thu, A. Chakraborty, **B.B. Saha** and K.C. Ng, “Thermo-physical properties of silica gel for adsorption desalination cycle”, *Applied Thermal Engineering*, **Vol. 50**, No. 2, pp. 1596-1602, 2013.
  26. K. Habib, **B.B. Saha**, A. Chakraborty, S.T. Oh and S. Koyama, “Study on solar driven combined adsorption refrigeration cycles in tropical climate”, *Applied Thermal Engineering*, **Vol. 50**, pp. No. 2, 1582-1589, 2013.
  27. S. Jribi, **B.B. Saha**, S. Koyama, A. Chakraborty and K.C. Ng, “Study on activated carbon/HFO-1234ze(E) based adsorption cooling cycle”, *Applied Thermal Engineering*, **Vol. 50**, No. 2, pp. 1570-1575, 2013.
  28. K. Habib and **B.B. Saha**, “Performance evaluation of solar driven activated carbon fiber-ethanol based adsorption cooling system”, *Asian Journal of Scientific Research*, **Vol. 6**, No. 2, pp. 146-156, 2013.
  29. A. Myat, K. Thu, Y.D. Kim, **B.B. Saha** and K.C. Ng, “Entropy generation minimization: A practical approach for performance evaluation of temperature cascaded co-generation plants”, *Energy*, **Vol. 46**, No. 1, pp. 493-521, 2012.

30. K. Srinivasan, **B.B. Saha**, P. Dutta, K.C. Ng and M.J. Brear, “Thermodynamic property slopes from primary measurements”, *International Journal of Mechanical Engineering Education*, **Vol. 40**, No. 1, pp. 79-91, 2012.
31. K. Srinivasan, P. Dutta, K.C. Ng and **B.B. Saha**, “Calculation of heat of adsorption of gases and refrigerants on activated carbons from direct measurements fitted to the Dubinin-Astakhov equation”, *Adsorption Science & Technology*, **Vol. 30**, No. 7, pp. 549-565, 2012.
32. A.A. Askalany, **B.B. Saha**, K. Kariya, I.M. Ismail, M. Salem, A.H.H. Ali, M.G. Morsy, “Hybrid adsorption cooling system – An overview”, *Renewable and Sustainable Energy Reviews*, **Vol. 16**, pp. 5787-5801, 2012.
33. W.S. Loh, A. Chakraborty, **B.B. Saha** and K.C. Ng, “Experimental and theoretical insight of nonisothermal adsorption kinetics for a single component adsorbent-adsorbate system”, *Journal of Chemical & Engineering Data*, **Vol. 57**, pp. 1174-1185, 2012.
34. **B.B. Saha**, I.I. El-Sharkawy, R. Thorpe and R.E. Critoph, “Accurate adsorption isotherms of R134a onto activated carbons for cooling and freezing applications”, *International Journal of Refrigeration*, **Vol. 35**, No. 3, pp. 499-505, 2012.
35. K.C. Ng, K. Thu, **B.B. Saha** and A. Chakraborty, “Study on a waste heat-driven adsorption cooling cum desalination cycle”, *International Journal of Refrigeration*, **Vol. 35**, No. 3, pp. 685-693, 2012.
36. K.A. Rahman, A. Chakraborty, **B.B. Saha** and K.C. Ng, “On thermodynamics of methane + carbonaceous materials adsorption”, *International Journal of Heat and Mass Transfer*, **Vol. 55**, No. 4, pp. 565-573, 2012.
37. W.S. Loh, K.A. Rahman, A. Chakraborty, **B.B. Saha**, K.C. Ng and W.G. Chun, “Evaluation and simulation of a waste heat driven pressurized solid-sorption chiller”, *Transactions of the JSRAE*, **Vol. 28**, No. 3, pp. 299-309, 2011.
38. M.Z.I. Khan, S. Sultana, **B.B. Saha** and A. Akisawa, “Experimental study on a three-bed adsorption chiller”, *International Journal of Air-Conditioning and Refrigeration*, **Vol. 19**, No. 4, pp. 285-290, 2011.
39. R.K. Majumder, M.A. Halim, **B.B. Saha**, R. Ikawa, T. Nakamura, M. Kagabu and J. Shimada, “Groundwater flow system in Bengal Delta, Bangladesh revealed by environmental isotopes”, *Environ Earth Sci.*, **Vol. 64**, pp. 1343-1362, 2011.
40. K. Srinivasan, **B.B. Saha**, K.C. Ng, P. Dutta and M. Prasad, “A method for the calculation of the adsorbed phase volume and pseudo-saturation pressure from adsorption isotherm data on activated carbon”, *Phys. Chem. Chem. Phys.*, **Vol. 13**, pp. 12559-12570, 2011.
41. A. Chakraborty, K.C. Leong, K. Thu, **B.B. Saha** and K.C. Ng, “Theoretical insight of adsorption cooling”, *Applied Physics Letters*, **Vol. 98**, No. 22, 221910, 2011.
42. K.A. Rahman, W.S. Loh, A. Chakraborty, **B.B. Saha**, W.G. Chun and K.C. Ng, “Thermal enhancement of charge and discharge cycles for adsorbed natural gas storage”, *Applied Thermal Engineering*, **Vol. 31**, No. 10, pp. 1630-1639, 2011.
43. **B.B. Saha**, S. Jribi, S. Koyama and I.I. El-Sharkawy, “Carbon dioxide adsorption isotherms on activated carbons”, *Journal of Chemical & Engineering Data*, **Vol. 56**, No. 5, pp. 1974-1981, 2011.
44. D. Attan, M.A. Alghoul, **B.B. Saha**, J. Assadeq, and K. Sopian, “The role of activated carbon fiber in adsorption cooling cycles”, *Renewable and Sustainable Energy Reviews*, **Vol. 15**, No. 3, pp. 1708-1721, 2011.
45. K. Thu, **B.B. Saha**, A. Chakraborty, W.G. Chun and K.C. Ng, “Study on an advanced adsorption desalination cycle with evaporator–condenser heat recovery circuit”, *International Journal of Heat and Mass Transfer*, **Vol. 54**, Nos. 1-3, pp.

- 43-51, 2011.
46. K. Habib, **B.B. Saha**, A. Chakraborty, S. Koyama and K. Srinivasan, "Performance evaluation of combined adsorption refrigeration cycles", *International Journal of Refrigeration*, **Vol. 34**, No. 1, pp. 129-137, 2011.
  47. W.S. Loh, **B.B. Saha**, A. Chakraborty, K.C. Ng and W.G. Chun, "Performance analysis of waste heat driven pressurized adsorption chiller", *Journal of Thermal Science and Technology*, **Vol. 5**, No. 2, pp. 252-265, 2010.
  48. S. Jribi, S. Koyama and **B.B. Saha**, "Performance investigation of a novel CO<sub>2</sub> compression-adsorption based hybrid cooling cycle", *Engineering Science Reports, Kyushu University*, **Vol. 32**, No. 3, pp. 12-18, November 2010.
  49. K.A. Rahman, W.S. Loh, H. Yanagi, A. Chakraborty, **B.B. Saha**, W.G. Chun and K.C. Ng, "Experimental adsorption isotherm of methane onto activated carbon at sub-and supercritical temperatures", *J. Chem. Eng. Data*, **Vol. 55**, No. 11, pp. 4961-4967, 2010.
  50. K. Thu, A. Chakraborty, **B.B. Saha**, W.G. Chun and K.C. Ng, "Life-cycle cost analysis of adsorption cycles for desalination", *Desalination and Water Treatment*, **Vol. 20**, pp. 1-10, 2010.
  51. W.S. Loh, K.A. Rahman, A. Chakraborty, **B.B. Saha**, Y.S. Choo, B.C. Khoo and K.C. Ng, "Improved isotherm data for adsorption of methane on activated carbons", *J. Chem. Eng. Data*, **Vol. 55**, No. 8, pp. 2840-2847, 2010.
  52. W.S. Loh, K.A. Rahman, K.C. Ng, **B.B. Saha**, and A. Chakraborty, "Parametric studies of charging and discharging in adsorbed natural gas vessel using activated carbon", *Modern Physics Letters B*, **Vol. 24**, No. 13, pp. 1421-1424, 2010.
  53. B. Akkamaradi, M. Prasad, P. Dutta, **B.B. Saha** and K. Srinivasan, "Adsorption of nitrogen on activated carbon-refit of experimental data and derivation of properties required for design of equipment, J. Chem. Eng. Data (2009) 54 (2291-2295)", *J. Chem. Eng. Data*, **Vol. 55**, pp. 1074, 2010.
  54. M.A. Halim, R.K. Majumder, S.A. Nessa, Y. Hiroshiro, K. Sasaki, **B.B. Saha**, A. Saepuloh and K. Jinno, "Evaluation of processes controlling the geochemical constituents in deep groundwater in Bangladesh: spatial variability on arsenic and boron enrichment", *Journal of Hazardous Materials*, **Vol. 180**, Nos. 1-3, pp. 50-62, 2010.
  55. K.C. Ng and **B.B. Saha**, "Application of adsorption technologies for energy efficiency", *Heat Transfer Engineering*, Editorial Paper, **Vol. 31**, No. 11, pp. 907-909, 2010.
  56. W.S. Loh, M. Kumja, K.A. Rahman, K.C. Ng, **B.B. Saha**, S. Koyama and I.I. El-Sharkawy, "Adsorption parameter and heat of adsorption of activated carbon/HFC-134a pair", *Heat Transfer Engineering*, **Vol. 31**, No. 11, pp. 910-916, 2010.
  57. A. Chakraborty, **B.B. Saha**, K.C. Ng, I.I. El-Sharkawy and S. Koyama, "Thermodynamic property surfaces for adsorption of R507A, R134a, and n-butane on pitch-based carbonaceous porous materials", *Heat Transfer Engineering*, **Vol. 31**, No. 11, pp. 917-923, 2010.
  58. T. Miyazaki, A. Akisawa and **B.B. Saha**, "The performance analysis of novel dual evaporator type three-bed adsorption chiller", *International Journal of Refrigeration*, **Vol. 33**, No. 2, pp. 276-285, 2010.
  59. K. Habib, **B.B. Saha**, K.A. Rahman, A. Chakraborty, S. Koyama and K.C. Ng, "Experimental study on adsorption kinetics of activated carbon/R134a and activated carbon/R507A pairs", *International Journal of Refrigeration*, **Vol. 33**, pp. 706-713, 2010.



60. **B.B. Saha**, K. Habib, I.I. El-Sharkawy and S. Koyama, "Adsorption characteristics and heat of adsorption measurements of R-134a on activated carbon", *International Journal of Refrigeration*, **Vol. 32**, No. 7, pp. 1563-1569, 2009.
61. K. Habib, **B.B. Saha**, I.I. El-Sharkawy and S. Koyama, "Experimental evaluation of adsorption rate of R507A on activated carbon", *Engineering Science Reports, Kyushu University*, **Vol. 31**, No. 2, pp. 5-9, September 2009.
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