

List of Publications

List of Publication in Journals during 2016-17

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List of Publication in Conferences during 2016-17

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List of Publication in Journals during 2015-16

1. Bidhan Ch. Mandal, Luna Barua, Sujata Saha Das and Gautam Pal, "Development of a Ne gas target for ^{22}Na production by proton irradiation", Review of Scientific Instruments 87, 033304 (2016); doi: 10.1063/1.4943212.
2. Pranab Bhattacharyya, Anjan Dutta Gupta, S. Dhar, Gautam Pal, Paramita Mukherjee, Electro-magnetic stress-induced degradation of insulation vacuum of a large cryo-magnetic system, Cryogenics 77, April 2016, DOI: 10.1016/j.cryogenics.2016.04.002.
3. Anjan Dutta Gupta, Sundeep Ghosh, Pranab Bhattacharyya, Gautam Pal, Paramita Mukherjee, Swarnendu Sen, Optimization of Support System for Fair Energy Buncher Dipole Magnet, IEEE Transactions on Applied Superconductivity, January 2016, DOI: 10.1109/TASC.2016.2517195.

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List of Publication in Conferences during 2015-16

1. T. Maiti, Sandip Pal, A. Mukherjee, U Panda, Design and optimization of helium liquefaction system with targeted capacity of 50 lph without LN₂, 26th International Cryogenic Engineering Conference and International Cryogenic Material Conference 2016, ICEC26-ICMC2016, 7-11 March 2016, New Delhi India.
2. Umashankar Panda, Anupam Mandal, Ananda Das, Murali Behera and Sandip Pal, Process Control Migration of 50 LPH Helium Liquefier, CEC26-ICMC2016, 7-11 March 2016, New Delhi India.
3. Sandip Pal, Arunava Das, T. Maiti, A. Mukherjee and U. Panda, Numerical simulation of plate-fin heat exchanger for helium liquefier and its validation at VECC, CEC26-ICMC2016, 7-11 March 2016, New Delhi India.
4. Bidhan Chandra Mandal, Nisith Kumar Das, "Conceptual design of ^4He film suppressor in Still of Dilution Refrigerator", 8-P1-78, 26th International Cryogenic Engineering Conference – International Cryogenic Materials Conference 2016, ICEC26-ICMC2016, New Delhi, India, March 7-11, 2016.
5. Sundeep Ghosh, Anjan Dutta Gupta, Malay Kanti Dey and Gautam Pal, "Quench analysis of a novel compact superconducting cyclotron", presented at the 26th International Cryogenic Conference - International Cryogenic Materials Conference (ICEC26-ICMC 2016).
6. Ritoban Basu Thakur, Jisnu Basu, Sundeep Ghosh, Nilanjan Biswas and Mala Das, "Designing a cryogenic recirculating superheated liquid detector for dark matter search", Proceedings of the DAE-BRNS Symp. on Nucl. Phys. 60 (2015), pg 972-973.

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List of Publication in Journals during 2014-15

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1. "Control of liquid helium supply to cryopanel of Kolkata superconducting cyclotron", Tamal Bhattacharyya and Gautam Pal, Review of Scientific Instruments 86, 026101 (2015), <http://dx.doi.org/10.1063/1.4856715>
2. "Design and development of injector cryomodule for superconducting electron LINAC", M. Ahammed, S. Ghosh, S. Saha, A. Dutttagupta, M. Mondal, R.E.Laxdal, T. Rise, V. Naik, G. Pal, A. Chakraborty, Indian Journal of Cryogenics, Volume 40 (2015),106-101, <http://dx.doi.org/10.5958/2349-2120.2015.00018.7>
3. "Thermal stability analysis of the niobium made elliptical cavity for superconducting electron LINAC project", M. Ahammed, S. Ghosh, A. Dutttagupta, M.K. Dey, M. Mondal, V. Naik, G. Pal, A. Chakraborty, Indian Journal of Cryogenics, Volume 40 (2015),123-127, <http://dx.doi.org/10.5958/2349-2120.2015.00021.7>
4. "Optimization of gaseous helium heater for 2K cryogenic system for VECC's superconducting electron linac", Manir Ahammed, Siddhartha Ghosh, Subrata Saha, Sandeep Kumar Singh, Tamal Kumar Bhattacharyya, Anjan DuttaGupta, Gautam Pal, Vaishali Naik, and Alok Chakrabarti, Cryogenics 63 (2014) 103-109, <http://dx.doi.org/10.1016/j.cryogenics.2014.05.009>
5. "Thermal stress analysis of a large aperture dipole magnet", Sundeep Ghosh, A. DuttaGupta, P Bhattacharyya, Gautam Pal and Alok Chakrabarti, Indian Journal of Cryogenics, Volume 40 (2015),1-5, <http://dx.doi.org/10.5958/2349-2120.2015.00001.1>
6. "Dynamic loss analysis for 4.5 MJ SMES", Bidhan Chandra Mandal, Uttam Bhunia, Javed Akhter, Jedidiah Pradhan, Chinmay Nandi, Sajjan Kumar Thakur, Manoranjan Das, Gautam Pal and Subimal Saha, Indian Journal of Cryogenics, Volume 40 (2015),29-34, <http://dx.doi.org/10.5958/2349-2120.2015.00006.0>
7. "Performance of the beam chamber vacuum system of K = 500 cyclotron at Variable Energy Cyclotron Centre Kolkata", Gautam Pal, Anjan DuttaGupta, and Alok Chakrabarti, Review of Scientific Instruments 85, 073301 (2014), <http://dx.doi.org/10.1063/1.4884901>

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List of Publication in Conferences during 2014-15

1. "Quench analysis for 9T superconducting solenoid magnet for VECC RIB facility", Pankaj Kumar, Chinmay Nandi, Chiranjib Das, Gautam Pal, 25th National Symposium on Cryogenics, University of Hyderabad, December 08 to 10, 2014.
2. "Simulation optimization on quench analysis of wide aperture superconducting quadrupole magnet", C. Nandi, S. Bhattacharyya, S.Roy, J. Akhter, S. Bajirao, P. R. Sharma, G. Pal and A. Chakrabarti, 25th National Symposium on Cryogenics, University of Hyderabad, December 08 to 10, 2014.

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List of Publication in Journals during 2013-14

1. Performance of Variable Energy Cyclotron Centre superconducting cyclotron liquid nitrogen distribution, G. Pal, C. Nandi, T.K. Bhattacharyya and A. Chakrabarti, Rev. Sci. Instrum. 85, 013301 (2014); <http://dx.doi.org:10.1063/1.4856715>.

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List of Publication in Conferences during 2013-14

1. Development of spiral inflector for superconducting cyclotron, S. Roy, C. Nandi, M.K. Dey and G. Pal, Indian Particle Accelerator Conference, Nov 19-22, 2013, VECC, Kolkata, November 19-22, 2013.
2. A compact field mapping system for VECC superconducting cyclotron magnet, C. Nandi, S. Bhattacharya, S. Roy, S. K. Mishra, M. K. Dey, A. Roy, S. Pal, G. Pal, and A. Chakrabarty, Indian Particle Accelerator Conference, VECC, Kolkata, November 19-22, 2013.
3. Refurbishing of beam acceleration chamber for K-130 cyclotron, Bidhan Chandra Mandal, P S Chkraborty, R C Yadav, B K Das, S C Sarkar, D Adak, B Hemram, C Nandi, K Majumdar, G Pal, A Chakraborty and D Srivastava, Indian Particle Accelerator Conference, VECC, Kolkata, November 19-22, 2013.
4. Development of cryogenic feed-through for e-linac, Sandeep Kumar Singh, M. Ahammed, B. Hemram, A. DuttaGupta and G. Pal, Indian Particle Accelerator Conference, VECC, Kolkata, November 19-22, 2013.
5. Development of septum handling device for room temperature cyclotron at Kolkata, S. Bhattacharya, S K Mishra, C Nandi and G Pal, Indian Particle Accelerator Conference, November 19-22, 2013, VECC, Kolkata.
6. Magnetic shielding for the VECC vertical cavity test facility, T. K. Bhattacharyya, C. Nandi, S. Som, G. Pal and A. Chakrabarti, Indian Particle Accelerator Conference, VECC, Kolkata, November 19-22, 2013.
7. Fatigue assessment of central support structure coil jacket of 4.5 MJ SMES, Javed Akhter, Uttam Bhunia, Bidhan Chandra Mondal, Chinmay Nandi, Gautam Pal and Subimal Saha, Indian Particle Accelerator Conference, VECC, Kolkata, November 19-22, 2013.
8. Quench study of wide aperture superconducting quadrupole magnet, Chinmay Nandi, S. Bhattacharyya, S. Roy, J. Akhter, S. Bajirao, M. Ahammed, P.R. Sarma, G. Pal and A. Chakrabarti, 7th Asian Conference on Applied Superconductivity and Cryogenics, Cappadocia, Turkey, October 2013.

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List of Publication in Journals during 2012-13

1. "Neutron shutter for Kolkata superconducting cyclotron", G. Pal, T. Bandopadhyay, C. Nandi, S. Chatterjee, R. Ravishankar, S. Bhattacharyya, M. Sengupta Mitra, Javed Akhter and S. Mishra, Rev. Sci. Instrum. 84, 056111 (2013); <http://dx.doi.org/10.1063/1.4807705>.
2. "Design of outer vacuum chamber for long superconducting quadrupoles for FAIR super FRS energy buncher", Javed Akhtar, G.Pal, C. Nandi, S.Roy, U. Bhunia, A. Datta, C. Mallik and R.K.Bhandari, Indian Journal of Cryogenics, Vol. 38, No. 1-4, 2013, p. 93-97.
3. "Design of Still for Dilution Fridge", Bidhan Ch Mandal, Md. Zamal Abdul Naser, Nisith Kumar Das, Jedidiah Pradhan, Anindya Roy, Chaturanan Mallik and Rakesh Kumar Bhandari, Indian Journal of Cryogenics, Vol. 38, No. 1-4, 2013, p. 160-165.

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List of Publication in Conferences during 2012-13

1. Design of 4K-2K test setup for validating the cryogenic circuitries to produce and deliver 2K liquid

- He for superconducting E-LINAC, M. Ahammed, S. Ghosh, S. Saha, S. Singh, B. Hembram, S. Biswas, A. Duttagupta, M. Mondal, T.K. Bhattacharyya, S. Pal, R.C. Yadav, R.E.Laxdal, N. Mayer, A. Koveshnikov, V. Naik, G. Pal, A. Chakraborty, 24th National Symposium on Cryogenics (NSC-24), Institute of Plasma Research, Gandhinagar, January, 2013.
2. Design and fabrication of the cryoshocking test facility for the inhouse development of the 4K-2K cryo insert, S. Singh, M. Ahammed, B. Hembram, A. Duttagupta, G. Pal, 24th National Symposium on Cryogenics (NSC-24), Institute of Plasma Research, Gandhinagar, January, 2013.
 3. Structural design of 650 Mhz B=0.6 superconducting radiofrequency cavity, Pranab Bhattacharyya, Javed Akhter, Chinmay Nandi, Anjan Dutta Gupta, Sumit Som, Gautam Pal, Alok Chakraborty, 24th National Symposium on Cryogenics (NSC-24), Institute of Plasma Research, Gandhinagar, January, 2013.
 4. Thermo-structural design of strong back for SSR1 cryomodule, Pranab Bhattacharyya, Anjan Dutta Gupta, Gautam Pal, Alok Chakraborty, Tom Nickol, 24th National Symposium on Cryogenics (NSC-24), Institute of Plasma Research, Gandhinagar, January, 2013.
 5. Stress analysis of FAIR SUPER-FRS sextupole magnet, S. Bhattacharya, U. Bhunia, S. Roy, C. Nandi, P.R. Sharma, S.R. Bajirao, S.K. Mishra, A. Dutta, J. Akhter, T.K. Bhattacharyya and G. Pal, 24th National Symposium on Cryogenics (NSC-24), Institute of Plasma Research, Gandhinagar, January, 2013.
 6. "The Injector Cryomodule for E-Linac at Triumf", Manir Ahammed, C.D. Beard, Alexey Koveshnikov, S.R. KOscielniak, Robert Laxdal, A Mitra, M. Mandal, V.Naik, T. Rise, Igor Sekachev, and V. Zvyagintasev, AIP conference proceedings 1434, 969 (2012); doi:10.1063/1.4707014.

List of Publication in Journals during 2011-12

1. Vacuum System of the Large Cyclotrons at VECC, G. Pal, C. Mallik, R.C. Yadav, J. Akhter, A. Datta Gupta, B. Mandal, A. Roy, A. Polley, M. Datta, C. Nandi, A. Sarkar, Srimantra Bhattacharyya, Sarbajit Pal, and R.K. Bhandari, Journal of Physics: Conference Series 390 (2012) 012001, <http://dx.doi.org/10.1088/1742-6596/390/1/012001>.
2. Design of Large Vacuum Chamber for VEC Superconducting Cyclotron Beam Line Switching Magnet, Sumantra Bhattacharya, Chinmoy Nandi, Subhasis Gayen, Suvadeep Roy, Santosh Kumar Mishra, Sanjay Ramrao Bajirao, Gautam Pal and C Mallik, Journal of Physics: Conference Series 390 (2012) 012017, <http://dx.doi.org/10.1088/1742-6596/390/1/012017>.
3. Design, Installation and Commissioning of new Vacuum chamber for Analysing Magnet of K-130 Cyclotron, Bidhan Chandra Mandal, S Saha, S C Sarkar, D Adak, T Viswanathan, B Hemram, P S Chakraborty, R C Yadav, C Mallik and R K Bhandari, Journal of Physics: Conference Series 390 (2012) 012021, <http://dx.doi.org/10.1088/1742-6596/390/1/012021>.
4. Preliminary Design of the Vacuum System for FAIR Super FRS Quadrupole Magnet Cryostat, J. Akhter, G. Pal, A. Datta, P. R. Sarma, U. Bhunia, S. Roy, S. Bhattacharyya, C. Nandi, C. Mallik and R. K. Bhandari, Journal of Physics: Conference Series 390 (2012) 012043, <http://dx.doi.org/10.1088/1742-6596/390/1/012043>.
5. Removal of water from unbaked vacuum system, G. Pal, J. Akhter, R.C. Yadav, C. Mallik and R.K. Bhandari, Journal of Physics: Conference Series 390 (2012) 012045, <http://dx.doi.org/10.1088/1742-6596/390/1/012045>.
6. Superferric Quadrupoles for FAIR SUPER FRS Energy Buncher, G. Pal, C. Nandi, S. Roy, U.

Bhunja, J. Akhter, S. Bhattacharyya, A. Datta, T.K. Bhattacharyya, M.K. Dey, C. Mallik, S. Saha and R.K. Bhandari, Cryogenics (2012), <http://dx.doi.org/10.1016/j.cryogenics.2012.07.004>.

List of Publication in Conferences during 2011-12

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1. The Injector Cryomodule for E-Linac at TRIUMF, M. Ahammed, C. Beard, R.E Laxdal, et. al., CEC/ICMC, June 2011, Spokane, USA.
2. Mandal Bidhan Ch, et. al. "Temperature distribution for Trimmer capacitor with modified contact fingers of K-130 Cyclotron" by InPAC 2011, 15-18th Feb,2011, IUAC, New Delhi.