

Recent Publications of Director, BARC (2006 onwards)


Author(s): Dureja, A. K.; Sinha, S. K.; Srivastava, A.; Sinha, R. K.; Chakravartty, J. K.; Seshu, P.; Pawaskar, D. N.

Title: Flow behaviour of autoclaved, 20% cold worked, Zr-2.5Nb alloy pressure tube material in the temperature range of room temperature to 800 degrees °C

Publication Year: 2011

Source: *Journal of Nuclear Materials*. 2011. Vol. 412 (1): pp. 22-29

Document Type: Article

Full Text:  PDF


Author(s): Borgohain, A.; Jaiswal, B. K.; Maheshwari, N. K.; Vijayan, P. K.; Saha, D.; Sinha, R. K.

Title: Natural circulation studies in a lead bismuth eutectic loop

Publication Year: 2011

Source: *Progress In Nuclear Energy*. 2011. Vol. 53 (4): pp. 308-319

Document Type: Article

Full Text:  PDF


Author(s): Chandraker, D. K.; Vijayan, P. K.; Sinha, R. K.; Aritomi, M.

Title: Phenomenological prediction of CHF under boiling water reactor (BWR) conditions

Publication Year: 2011

Source: *Progress in Nuclear Energy*. 2011: pp. Article in Press

Document Type: Article

Full Text:  PDF

Author(s): Jain, V.; Kulkarni, P. P.; Nayak, A. K.; Vijayan, P. K.; Saha, D.; Sinha, R. K.

Title: Steam drum level dynamics in a multiple loop natural circulation system of a pressure tube type boiling water reactor

Publication Year: 2011

Source: *Annals of Nuclear Energy*. 2011: pp. Article in Press

Document Type: Article

Full Text:  PDF

Author(s): Sinha, R. K.

Title: Advanced Nuclear Reactor Systems – An Indian Perspective

Publication Year: 2011

Source: *Energy Procedia*. 2011. Vol. 7: pp. 34-50

Document Type: Article

Full Text:  PDF

Author(s): Agnihotri, N.; Sinha, R. K.

Title: A Reactor with Passive Shutdown System

Publication Year: 2011

Source: *Nuclear Plant Journal*. 2011. Vol. 29 (1): pp. 3- 36

Document Type: Editorial Material

Full Text:  PDF

Author(s): Vijayan, P. K.; Sharma, M.; Pilkhwal, D. S.; Saha, D.; Sinha, R. K.

Title: A Comparative Study of Single Phase, Two Phase, and Supercritical Natural Circulation in a Rectangular Loop

Publication Year: 2010

Source: *Journal of Engineering for Gas Turbines and Power Transactions of The ASME*. 2010. Vol. 132 (10): Article No. 102913

Document Type: Article

Full Text:  PDF

Author(s): Sinha, R. K.; Dulera, I. V.

Title: Carbon based materials applications in high temperature nuclear reactors

Publication Year: 2010

Source: *Indian Journal of Engineering and Materials Sciences*. 2010. Vol. 17 (5): pp. 321-326

Document Type: Article

Full Text:  PDF

Author(s): Jain, V.; Nayak, A. K.; Vijayan, P. K.; Saha, D.; Sinha, R. K.

Title: Experimental investigation on the flow instability behavior of a multi channel boiling natural circulation loop at low pressures

Publication Year: 2010

Source: *Experimental Thermal and Fluid Science*. 2010. Vol. 34 (6): pp. 776-787

Document Type: Article

Full Text:  PDF

Author(s): Sinha, Ratan; Kakodkar, Anil

Title: India's passive breeder

Publication Year: 2010

Source: *Nuclear Engineering International*. 2010. Vol. 55 (668): pp. 30-31

Document Type: Article

Full Text:  PDF

Author(s): Sharma, M.; Vijayan, P. K.; Pilkhwal, D. S.; Saha, D.; Sinha, R. K.

Title: Linear and Nonlinear Stability Analysis of a Supercritical Natural Circulation Loop

Publication Year: 2010

Source: *Journal of Engineering for Gas Turbines and Power Transactions of The Asme*. 2010. Vol. 132 (10): Article No. 102904

Document Type: Article

Full Text:  PDF

Author(s): Sharma, Manish; Pilkhwal, D. S.; Vijayan, P. K.; Saha, D.; Sinha, R. K.

Title: Steady state and linear stability analysis of a supercritical water natural circulation loop

Publication Year: 2010

Source: *Nuclear Engineering and Design*. 2010. Vol. 240 (3): pp. 588-597

Document Type: Article

Full Text:  PDF

Author(s): Gaikwad, A. J.; Vijayan, P. K.; Bhartiya, S.; Kumar, R.; Lele, H. G.; Sinha, R. K.

Title: Steam drum process dynamics and level control of a pressure tube BWR

Publication Year: 2010

Source: *Kerntechnik*. 2010. Vol. 75 (6): pp. 352-362

Document Type: Article

Full Text:  PDF

Author(s): Gaikwad, A. J.; Vijayan, P. K.; Iyer, K.; Bhartiya, S.; Kumar, R.; Lele, H. G.; Ghosh, A. K.; Kushwaha, H. S.; Sinha, R. K.


Title: Effect of Loop Configuration on Steam Drum Level Control for a Multiple Drum Interconnected Loops Pressure Tube Type Boiling Water Reactor


Publication Year: 2009


Source: *IEEE Transactions on Nuclear Science*. 2009. Vol. 56 (6): pp. 3712-3725


Document Type: Article


Full Text:  PDF

Author(s): Nayak, A. K.; Jain, V.; Gartia, M. R.; Prasad, H.; Anthony, A.; Bhatia, S. K.; Sinha, R. K.
Title: Reliability assessment of passive isolation condenser system of AHWR using APSRA methodology
Publication Year: 2009
Source: *Reliability Engineering & System Safety*. 2009. Vol. 94 (6): pp. 1064-1075
Document Type: Article
Full Text:  PDF

Author(s): Sinha, R. K.
Title: Energy & Desalination Projects
Publication Year: 2008
Source: *Nuclear Plant Journal*. 2008. Vol. 26 (5): pp. 22-23
Document Type: Article
Full Text:  PDF

Author(s): Sinha, R. K.; Sinha, S. K.; Madhusoodanan, K.
Title: Fitness for service assessment of coolant channels of Indian PHWRs
Publication Year: 2008
Source: *Journal of Nuclear Materials*. 2008. Vol. 383: pp. 14-21
Document Type: Article
Full Text:  PDF

Author(s): Dulera, I. V.; Sinha, R. K.
Title: High temperature reactors
Publication Year: 2008
Source: *Journal of Nuclear Materials*. 2008. Vol. 383: pp. 183-188
Document Type: Article
Full Text:  PDF

Author(s): Chandraker, D. K.; Vijayan, P. K.; Saha, D.; Sinha, R. K.
Title: Investigation on the characteristic of CHF in various flow pattern regimes based on look up table data
Publication Year: 2008
Source: *Nuclear Engineering and Design*. 2008. Vol. 238 (1): pp. 170-177
Document Type: Article
Full Text:  PDF

Author(s): Nayak, A. K.; Gartia, M. R.; Antony, A.; Vinod, G.; Sinha, R. K.

Title: Passive system reliability analysis using the APSRA methodology

Publication Year: 2008

Source: *Nuclear Engineering and Design*. 2008. Vol. 238 (6): pp. 1430-1440

Document Type: Article

Full Text:  PDF


Author(s): Nayak, A. K.; Jain, V.; Gartia, M. R.; Srivastava, A.; Prasad, H.; Anthony, A.; Gaikwad, A. J.; Bhatia, S.; Sinha, R. K.

Title: Reliability assessment of passive containment isolation system using APSRA methodology

Publication Year: 2008

Source: *Annals of Nuclear Energy*. 2008. Vol. 35 (12): pp. 2270-2279

Document Type: Article

Full Text:  PDF

Author(s): Nayak, A. K.; Sinha, R. K.

Title: Role of passive systems in advanced reactors

Publication Year: 2007

Source: *Progress In Nuclear Energy*. 2007. Vol. 49 (6): pp. 486-498

Document Type: Article

Full Text:  PDF

Author(s): Chandraker, D. K.; Vijayan, P. K.; Saha, D.; Sinha, R. K.

Title: Assessment of the look up table using the tubular and bundle CHF data and modification of the bundle correction factor

Publication Year: 2006

Source: *Kerntechnik*. 2006. Vol. 71 (4): pp. 192-202

Document Type: Article

Full Text:  PDF

Author(s): Sinha, R. K.; Kakodkar, A.

Title: Design and development of the AHWR the Indian thorium fuelled innovative nuclear reactor

Publication Year: 2006

Source: *Nuclear Engineering and Design*. 2006. Vol. 236: pp. 683-700

Document Type: Article

Full Text:  PDF

Author(s): Sinha, J. K.; Rao, A. R.; Sinha, R. K.

Title: Realistic seismic qualification using the updated finite element model for in core components of reactors

Publication Year: 2006

Source: *Nuclear Engineering and Design*. 2006. Vol. 236 (3): pp. 232-237

Document Type: Article

Full Text:  PDF

Author(s): Krishichayan; Charaborty, A.; Mukhopadhyay, S.; Ray, S.; Pattabiraman, N. S.; Ghugre, S. S.; Goswami, R.; Sinha, A. K.; Sarkar, S.; Garg, U.; Rao, P. V. Madhusudhana; Basu, S. K.; Yogi, B. K.; Chaturvedi, L.; Dahl, A.; Sinha, R. K.; Sarkar, M. Saha; Saha, S.; Singh, R.; Bhowmik, R. K.; Jhingan, A.; Madhavan, N.; Muralithar, S.; Nath, S.; Singh, R. P.; Sugathan, P.

Title: Spin parity measurements in the neutron rich N similar to 20 P 34 and S 36 nuclei

Publication Year: 2006

Source: *European Physical Journal A*. 2006. Vol. 29 (2): pp. 151-159

Document Type: Article

Full Text:  PDF
