

JOURNAL PUBLICATIONS

1. R. Gupta and N. Kaistha, "Role of non-linear effects in ternary dividing wall column control system design", *Ind. Eng. Chem. Res.*, accepted, (2015).
2. R.S. Thakur, N. Kaistha and D.P. Rao, "Single bed and twin bed PSA systems", *Chem. Eng. Processing: Process Intensification*, accepted, (2015).
3. Ojasvi and N. Kaistha, "Continuous monoisopropyl amine manufacturing: Sustainable process design and plantwide control", *Ind. Eng. Chem. Res.*, 54, 3398-3411 (2015).
4. V. Kumar and N. Kaistha, "Hill Climbing for plantwide control to economic optimum", *Ind. Eng. Chem. Res.*, 53, 16465-16475 (2014).
5. P. Kumari, R. Jagtap and N. Kaistha, "Control system design for energy efficient on-target product purity operation of a high purity Petlyuk column", *Ind. Eng. Chem. Res.*, 53, 16436-16452 (2014).
6. D. Maity, R. Jagtap and N. Kaistha, "Systematic top-down economic plantwide control of the cumene process", *J. Proc. Cont.*, 23, 1426-1440 (2013).
7. R. Jagtap, N. Kaistha, W.L. Luyben, "External reset feedback for constrained economic process operation", *Ind. Chem. Eng. Res.*, 52, 9654-9664 (2013).
8. M. Shihhare, D.P. Rao and N. Kaistha, "Mass transfer studies on split-packing and single-block packing rotating packed beds", *Chem. Eng. Processing: Process Intensification*, 71, 115-124 (2013).
9. R. Jagtap, N. Kaistha and S. Skogestad, "Economic plantwide control over a wide throughput range: A systematic design procedure", *AIChE J.*, 59, 2407-2426 (2013).
10. V. Gera, M. Panahi, S. Skogestad and N. Kaistha, "Economic plantwide control of the cumene process", *Ind. Eng. Chem. Res.*, 52, 830-846 (2013).
11. R. Jagtap, A.S. Pathak and N. Kaistha, "Economic plantwide control of the ethyl benzene process", *AIChE J.*, 59, 1996-2014 (2013).
12. R. Jagtap and N. Kaistha, "Economic plantwide control of a C₄ isomerization process", *Ind. Eng. Chem. Res.*, 51, 11731-11743 (2012).
13. R. Jagtap, N. Kaistha and S. Skogestad, "Plantwide control for economic operation of a recycle process with side reaction", *Ind. Eng. Chem. Res.*, 50, 8571-8584 (2011).
14. R.S. Thakur, N. Kaistha, and D.P. Rao, "Process intensification in duplex pressure swing adsorption", *Comp. Chem. Eng.*, 35, 975-983 (2011).
15. A.S. Pathak, S. Agarwal, V. Gera and N. Kaistha, "Design and control of vapor-phase conventional process and reactive distillation process for cumene production", *Ind. Eng. Chem. Res.*, 50, 3312-3326 (2011).
16. G. Spoorthi, R.S. Thakur, N. Kaistha and D.P. Rao, "Process intensification in PSA processes for upgrading synthetic landfill and lean natural gases", *Adsorption*, 17, 121-133 (2011).
17. S. Rajan, M. Kumar, M.J. Ansari, D.P. Rao and N. Kaistha, "Limiting gas liquid flows and mass transfer in a novel rotating packed bed (HiGee)", *Ind. Eng. Chem. Res.*, 50, 986-997 (2011).
18. L. Agarwal, V. Pavani, D.P. Rao and N. Kaistha, "Process intensification in HiGee absorption and distillation: Design procedure and applications", *Ind. Eng. Chem. Res.*, 49, 10046-10058 (2010).
19. R. Kanodia and N. Kaistha, "Plant-wide control system design for through-put maximization: A case study", *Ind. Eng. Chem. Res.*, 49, 210-221 (2010).
20. M. Rahul, M.V.P. Kumar, D. Dwivedi and N. Kaistha, "An efficient algorithm for rigorous dynamic simulation of reactive distillation columns", *Comp. Chem. Eng.*, 33, 1336-1343 (2009).
21. S. Koduru and N. Kaistha, "Controllable optimized designs of an ideal reactive distillation system using genetic algorithm", *Chem. Eng. Sc.*, 64, 4929-4942 (2009).
22. M.V. Pavan Kumar and N. Kaistha, "Evaluation of ratio control schemes for improved controllability of a methyl acetate reactive distillation column", *Chem. Eng. Res. Des.*, 87, 216-225 (2009).
23. M.V. Pavan Kumar and N. Kaistha, "Reactive Distillation Column Design for Controllability: A Case Study", *Chem. Eng. Processing: Proc. Intensification*, 48(2), 606-616 (2009).
24. M.V. Pavan Kumar and N. Kaistha, "Internal heat integration and controllability of an ideal reactive distillation column II: Effect of catalyst redistribution", *Ind. Eng. Chem. Res.*, 47(19), 7304-7311 (2008).

25. M.V. Pavan Kumar and N. Kaistha, "Internal heat integration and controllability of an ideal reactive distillation column I: Effect of feed tray location", *Ind. Eng. Chem. Res.*, 47(19), 7294-7303 (2008).
26. S. Singh, S. Lal and N. Kaistha, "Control of tubular reactor hot-spot temperature: Control configurations and through-put maximization", *Ind. Eng. Chem. Res.*, 47(19), 7257-7263 (2008).
27. M.V. Pavan Kumar and N. Kaistha, "Steady state multiplicity and its implications on the control of an ideal reactive distillation column", *Ind. Eng. Chem. Res.*, 47, 2778-2787 (2008).
28. M.V. Pavan Kumar and N. Kaistha, "Role of multiplicity in reactive distillation control system design", *J. of Proc. Cont.*, 18, 692-706 (2008).
29. M.V. Pavan Kumar and N. Kaistha, "Decentralized control of a kinetically controlled ideal reactive distillation column", *Chem. Eng. Sc.*, 63, 228-243 (2008).
30. S.K. Jha and N. Kaistha, "Valve positioning control for process through-put maximization", *Chem. Eng. Res. & Des.*, 85(A11), 1465-1475 (2007).
31. M.V. Pavan Kumar and N. Kaistha, "Temperature based inferential control of a methyl acetate reactive distillation column", *Chem. Eng. Res. & Des.*, 85(A9), 1268-1280 (2007).
32. R. Singh, M.V. Pavan Kumar and N. Kaistha, "Steady state reactive distillation simulation using the Naphtali-Sandholm method", *Can. J. of Chem. Eng.*, 85, 75-82 (2007).
33. B.P. Singh, R. Singh, M.V. Pavan Kumar and N. Kaistha, "Steady state analyses for reactive distillation control: An MTBE case study", *J. of Loss Prev. in the Proc. Ind.*, 18, 283-292 (2005).
34. B.P. Singh, R. Singh, M.V. Pavan Kumar, and N. Kaistha, "Steady state analysis of reactive distillation columns using homotopy continuation", *Chem. Eng. Res. & Des.*, 83 (A8), 959-968 (2005).
35. N. Kaistha, C.F. Moore, and M.G. Leitnaker, "An SPC framework for the characterization of batch profiles", *Technometrics*, 46, 53-68 (2004).
36. N. Kaistha, M.S. Johnson, M.G. Leitnaker and C.F. Moore, "On-line batch recipe adjustments for product quality control using empirical models: Application to a nylon-6,6 process", *ISA Trans.*, 42, 305-315 (2003).
37. N. Kaistha and B. Upadhyaya, "Incipient fault detection and isolation in nuclear power plant field devices using principal component analysis", *Nuc. Tech.*, 162, 221-230 (2001).
38. N. Kaistha and C.F. Moore, "Extraction of event times in batch profiles for time synchronization and quality predictions", *Ind. Eng. Chem. Res.*, 40, 252-260 (2001).
39. C.F. Moore, N. Kaistha and M.S. Johnson, "Monitoring and analysis of batch profiles", *J. of Proc. Anal. Chem.*, V, 65-79 (2000).

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