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EDUCATION

- * **Ph.D. (CHEMICAL ENGINEERING):** California Institute of Technology (Caltech), 1987.
- * **MASTER OF SCIENCE IN CHEMICAL ENGINEERING:** Caltech, 1984.
- * **CHEMICAL ENGINEER:** Universidad Nacional del Litoral, Argentina, 1977.

PRESENT POSITION

- * **Sam Wilson Professor.** Dept of Chem. Eng. and Material Science. University of Oklahoma.
- * **Director.** Center for Engineering Optimization. University of Oklahoma.

AREAS OF EXPERTISE

- * **Process Engineering:** Process Design and Simulation. Heat Integration. Petroleum Fractionation. Decision Making-Financial Risk. Product Design.
- * **Process Plant Data Management:** Data Reconciliation and Fault Analysis.

BOOKS: Smart Plants (2009) Design and Upgrade of Process Plant Instrumentation. CRC Press (2000)

HANDBOOK CHAPTERS: Two chapters in the Instrumentation Handbook CRC Press.

SELECTED PUBLICATIONS IN 2005-2009(Out of a total of 200)

1. Whitnack C., A. Heller, M. T. Frow, S. Kerr and M. Bagajewicz. *Financial Risk Management in the Design of Products under Uncertainty*. Comp. Chem. Eng. Vol. 33, No 5, pp. 1056–1066 (2009).
2. Faria D. C. and M. Bagajewicz. *Profit-based Grassroots Design and Retrofit of Water Networks in Process Plants*. Computers and Chemical Engineering. Vol. 33, No 2, 436–453(2009).
3. Guyonnet, P., H. Grant and M. Bagajewicz. *Integrated Model for Refinery Planning Oil Procuring and Product Distribution*. Industrial and Engineering Chemistry Research. Vol 48, No 1, 463–482 (2009).
4. Lakkhanawat H. and M. Bagajewicz. *Financial Risk Management with Product Pricing in the Planning of Refinery Operations*. Ind. and Eng. Chem. Res. Vol 47, No 17, 6622-6639 (2008).
5. Nguyen, D. and M. Bagajewicz. *Design of Nonlinear Sensor Networks for Process Plants*. Industrial and Engineering Chemistry Research. Vol 47, No 15, 5529-5542 (2008).
6. Nguyen D., C. Brammer and M. Bagajewicz. *New Tool for the Evaluation of the Scheduling of Preventive Maintenance for Chemical Process Plants*. IECR. Vol 47, No 6, 1910-1924 (2008).
7. Street C., J. Woody, J. Ardila and M. Bagajewicz. *Product Design: A Case Study of Slow Release Carpet Deodorizers/Disinfectants*. Ind. and Engineering Chemistry Research. Vol 47, No 4, 1192-1200 (2008).
8. Janjira S., R. Magaraphan and M. Bagajewicz. *Simultaneous Treatment of Environmental and Financial Risk in Process Design under Uncertainty*. Int. J. of Env. & Pollution. Vol. 29 No 1/2/3. pp 30-46 (2007).
9. Gala M and M. Bagajewicz. *A Efficient Procedure for the Design and Upgrade of Sensor Networks using Cutsets and Rigorous Decomposition* Ind. Eng. Chem. Res. Vol 45, No 21, pp. 6687-6697 (2006).
10. Barbaro A. and M. Bagajewicz. *New Rigorous One-Step MILP Formulation for Heat Exchanger Network Synthesis*. Computers and Chemical Engineering. Vol 29, 9, pp. 1945-1976 (2005).
11. Aseeri A. and M. Bagajewicz. *New Measures and Procedures to Manage Financial Risk with applications to Planning of Gas Commercialization in Asia*. Comp. & Chem.Eng. Vol. 28 No 12 (2004).
12. Lavaja J. and M. Bagajewicz. *A New MILP Model for the Planning of Heat Exchanger Network Cleaning*. Industrial and Engineering Chemistry Research. Vol. 43, No 14, pp. 3924 – 3938 (2004).
13. Aseeri A., P. Gorman and M. Bagajewicz. *Financial Risk Management in Offshore Oil Infrastructure Planning and Scheduling*. Ind. and Eng. Chem. Res. 43, No 12, pp. 3063-3072 (2004).

PRIOR RESEARCH AND WORK EXPERIENCE

(1992-1995) Simulation Sciences (CA)

(1989-1992) Mass-Exchange Networks and Cost Effective/ Energy Efficient Systems. (At UCLA)

(1987-1989) Steam and Power Systems Basic Engineering of a H₂O₂ New Plant in Argentina.

(1976-1987) Design of a Heavy Water plant in Argentina. PhD Studies (1982-1987).

CONFERENCES: More than 230 papers in Congresses (AIChE, PSE, IFAC, ESCAPE, PRESS).

- Member of the scientific Committee of various conferences (ESCAPE, PRES, FOCAP, etc.)

AWARDS: Regents Award Superior Research Activities. (2003) & Presidential Professorship. Univ. of Oklahoma (2001-), Research Fellow. Argentine Atomic Energy Commission. (1978).

COMPLETE CV: Available at <http://www.ou.edu/class/che-design/index.htm>