

Professor (Efstratios N.) Stratos Pistikopoulos FEng

Date of Birth	12 August 1961
Department	Artie McFerrin Department of Chemical Engineering, Texas A&M University
Date of Current Appointment	6 November 2014
Title of Current Appointment	Director Texas A&M Energy Institute & Dow Chemical Chair Professor

Higher Education

1. Department of Chemical Engineering, Carnegie Mellon University, Pittsburgh, USA, 1984-1988 - PhD
2. Department of Chemical Engineering, Aristotle University of Thessaloniki, Thessaloniki, Greece, 1979-1984 - Diploma (1st Class Honours)

Current/Previous Appointments

- Director, Texas A&M Energy Institute, 2018-
- Chair, Center and Institute Directors Council, Texas A&M, 2017-
- Courtesy Appointment, Department of Multidisciplinary Engineering, Texas A&M, 2022-2025
- Interim Co-Director, Texas A&M Energy Institute, 2016-2018
- Deputy Director, Texas A&M Energy Institute, 2017-
- Course Director, Master of Science in Energy, Texas A&M University, 2016-
- Co-Director, Southern Region Manufacturing Centre, DoE CESMII, 2016-2020
- Co-Lead, Modelling & Simulation Focus Area, DoE RAPID, 2017-
- Dow Chemical Chair Professor, 2020-
- TEES Distinguished Research Professor, Artie McFerrin Department of Chemical Engineering, Texas A&M University, 2015-2020
- Associate Director, Texas A&M Energy Institute, 2015-2016
- Course Co-Director, Master of Science in Energy, Texas A&M University, 2015-2016
- Director of Research, Department of Chemical Engineering, Imperial College London, 2010-2013
- Member, Departmental Executive Committee, Department of Chemical Engineering, Imperial College London, 2010-2013
- Member, Faculty Research Committee, Faculty of Engineering, Imperial College London, 2010-2013
- Director, Centre for Process Systems Engineering (CPSE), Imperial College London, 2002-2009
- Professor of Chemical Engineering, Imperial College London 1999-2015
- Reader, Department of Chemical Engineering, Imperial College, London, 1996-1999
- Lecturer, Department of Chemical Engineering, Imperial College, London, 1991-1996
- Research Associate, Chemical Process Engineering Research Institute, Thessaloniki, Greece, 1990-1991
- Research Chemical Engineer, Koninklijke Shell-Laboratorium, Amsterdam, The Netherlands, 1988-1990

Distinctions and Awards

- **2022** – Association of Former Students Distinguished Achievement Award in Research, Texas A&M
- **2021** – AIChE Sustainable Engineering Forum Award
- **2021** – Member, TAMEST, The Academy of Medicine, Engineering and Science of Texas
- **2020** – Sargent Medal, IChemE
- **2019** – Texas A&M TEES Engineering Genesis Award
- **2018-2021** - Research Fellow, Institute for Science, Technology and Public Policy (ISTPP), the Bush School of Government and Public Service, Texas A&M University
- **2017** – Fellow, American Institute of Chemical Engineers, US
- **2017** – AIChE/CAST Award for Excellence and Service to the CAST Division
- **2016-2019** – Distinguished Visiting Professor, Tsinghua University, Beijing, China
- **2015-2023** – Visiting Professor, Imperial College London, UK
- **2015** – Doctor Honoris Causa, University of Pannonia, Hungary
- **2014** – Doctor Honoris Causa, Polytechnic University of Bucharest, Romania
- **2014** – 21st Professor Roger WH Sargent Lecture, Imperial College London
- **2013** – Fellow, Royal Academy of Engineering, UK
- **2012** – AIChE/CAST Computing Award
- **2009** – Imperial College, Rector’s Research Excellence Award (part of a Molecular Systems 6-member group)
- **2009** – Bayer Lecture, Carnegie Mellon University
- **2008** – European Research Council (ERC) Advanced Grant Award
- **2007** – Royal Academy of Engineering, **Mac Robert Award and Gold Medal** (part of PSE Ltd.’s 5-member winning team)
- **2005** – Fellow, Institution of Chemical Engineers, UK
- **2005** – Imperial College, Rector’s Award for Excellence
- **2002** – Queen’s Award for Excellence in Research & Technology Transfer, 2002 (on behalf of CPSE – as its Director)
- **1991 to 1996** - Royal Academy of Engineering - ICI Engineering Fellowship

Plenary/Keynote Lectures (representative list)

2023 – FOCAPO/CPC 2023, San Antonio, TX; **2021** – ESCAPE-31, Istanbul, Turkey; 24th Conference on Process Integration, PRES’21; AIChE Virtual Spring Meeting; **2020** – ICChE 2020; **2019** – FOCAPD 2019, Copper Mountain Resort, Colorado; **2018** – ESCAPE28, PSE 2018; **2017** – FOCAPO/CPC 2017, Tucson, AZ; **2016** – SCPPE 2016, Nanjing, China; **2015** – ESCAPE/PSE2015 (Copenhagen, Denmark), 65th Canadian Chemical Engineering Conference (Calgary, Canada); **2014** – FOCAPD 2014 (Cle Elum, Washington State, USA); **2013** – PSE Asia (Kuala Lumpur, Malaysia); **2012** – FOCAPO 2012/CPC VIII (Savannah, Georgia, USA); **2011** – Benelux2011 (Lommel, Belgium); **2010** – CMS2010 (Vienna, Austria), VOCAL2010 (Vezsprem, Hungary); **2009** – Bayer Lecture in Process Systems Engineering, Carnegie Mellon (Pittsburgh, PA, USA); ESCAPE-19 (Krakow, Poland); **2007** – ESCAPE-17 (Bucharest, Romania), ECCE-6 (Copenhagen, Denmark); **2006** – PRES’06 (Prague, Czech Republic); **2005** – PSE-ASIA (Seoul, South Korea); **2004** – FOCAPD (Princeton, NJ, USA), DYCOPS (Boston, MA, USA); **2003** – MOPTA (Montreal, Canada); **2001** – CPC-6 (Tucson, AZ, USA), PPEPPD 2001 (Kurashiki, Japan); **2000** – PSE2000 (Keystone, CO, USA); **1999** –

FOCAPD (Breckenridge, CO, USA); **1997** – Clean Products and Processes (San Diego, CA, USA), Process Integration International Conference (Trondheim, Norway).

Professional Activities

- **Editor-in-Chief**, Computers & Chemical Engineering, Elsevier, 2015-
- Editorial Board, Journal of Global Optimization, Kluwer (since 2010)
- Editorial Board, Computational Management Science, Springer (since 2010)
- Editorial Board, Energy Systems, Springer (since 2015)
- Editorial Board, Frontiers of Energy and Power Engineering in China, Springer (since 2015)
- **Co-Editor**, Book Series in Process Systems Engineering, Wiley-VCH, 2010-
- **Co-Editor**, Series on Computer-Aided Chemical Engineering, Elsevier, 2000-
- Editorial Board, Industrial & Engineering Chemistry Research (I&ECR) (2011-2013)
- Member of the Board, Governing Board, RAPID Institute, 2017-
- External Examiner, Master Program in Energy, School of Engineering, University of Cambridge, UK (2015-2017)
- Trustee, CACHE (2013-2019)
- Chair, CAST, AIChE (2017); 1st Vice-Chair, CAST, AIChE (2016); 2nd Vice-Chair CAST, AIChE (2015)
- Member – Greek Technical Chamber (since 1984), American Institute of Chemical Engineers (since 1987); CAPE Working Party, EFCE (since 2000)
- **International Conference Organization – Organiser** – European Symposium of Computer Aided Process Engineering (ESCAPE) 21, Greece, 2011; **Co-Organiser** – French-German Optimization Conference (Imperial College, June 2015), FOCAPO (June 2008), Computational Management Science (March 2008), Global Optimization Workshop (December 2007, London); Optimization Day (Texas A&M, 2016); Global Optimization Conference (Texas A&M, 2017); **Member of International Scientific Committee** - Process Systems Engineering (PSE) Conference Series (since 1997); Foundations of Computer-Aided Process Design & Process Operations Conference Series (FOCAPO, FOCAPD) – since 2001; European Symposium of Computer Aided Process Engineering Conference Series (ESCAPE) - since 1995; European Conference of Chemical Engineers Conference Series (ECCE): ECCE-6 (Copenhagen, 2007); Process Integration, Modelling and Optimization Conference Series (PRES) – since 2003.
- **Co-Founder**, past member of the Board, and Senior Strategic Consultant, Process Systems Enterprise Limited (PSE Ltd) – now Siemens PSE (acquired in 2019).
- Initiated, developed and conducted short courses for Industry & academic institutions – Process Optimization (1994, 1995, 1996-1998, 2004-2014) – BP, Shell, Tsinghua, Air Products, Ecole Polytechnique, DTU, EPFL, CPERI, Chulalongkorn University; Yonsei University, Korea (2016)
- Consulting - BP (Engineering, Chemicals, Exploration), UK (1993-2002); Shell Research, Netherlands (1993-2002); Air Products (2001-2007); and other leading industrial companies.
- Regular reviewer of papers for most major international scientific journals and conferences in Process Systems Engineering, Operations Research, Control and Optimization areas.
- External Examiner – DTU (Denmark), Manchester (UK), UCL (UK), UPC (Spain), Abo University (Finland), Delft University (The Netherlands), University of Kent (UK), NTU (Norway), Cambridge University (2015-2018; 2021)

- Evaluator – International Panel, Member, Chemical Engineering Programme, Portugal (2001-2002); ERIC Network, Brussels (2007); External Examiner: University Teknologi PETRONAS, MSc Process Integration Programme (2011-2019)

Research & Research Management

- **Author or co-author of 5 books, 10 edited books, 4 patents, 316+ journal publications, 250+ refereed/conference publications, 50+ Chapters in books & chapter contributions to encyclopaedias**
- **Google Scholar** – [8/17/2022] **25,512 citations, h-index 80**
- **ISI WoS** – [8/17/2022] 601 publications, 15,520 citations, h-index 61
- **Scopus** – [8/17/2022] 661 publications, 16,505 citations, h-index 64
- Research interests include (i) theory, algorithms and computational tools for continuous and integer multi-parametric programming and control, (ii) advanced model based control and its applications to biomedical and industrial & smart manufacturing systems, and (iii) energy and the environment - sustainable process development, process intensification, multi-scale energy systems engineering & the food-energy-water nexus
- Formulated, initiated and established an **interdisciplinary ongoing research programme** involving an average of 15 man-years per annum (over 30-year career) students
- **Texas A&M Energy Institute** – over 290 affiliate members, across Texas A&M University [public policy, engineering, science]; initiated new interdisciplinary Master program in Energy
- **Leads as PI** major initiatives and projects at Texas A&M Energy Institute, including two Manufacturing USA projects (RAPID and CESMII), the University Coalition for Fuel Research (UCFER) and the Energy Institute's Industrial Consortium.
- **Current research group** involves 14 PhD students, 4 Master students, and two research scientists (& six undergraduate students)
- **Involved in over 50 research and industrial contracts** (1991-2013) as Coordinator and/or PI (Imperial College London)
- **Supervised 61 PhD students** (50 at Imperial), **20 Post-Doctorate Associates** (15 at Imperial), and **65 MSc students** (50 at Imperial)
- **Destination of PhDs/RAs/Post-Docs** - 24 academic positions, 48 Positions in industry, consulting & R&D positions, 5 positions in banks/finance
- **CPSE Industrial Consortium** – a consortium of 15 major international companies directly supporting the interdisciplinary Centre for Process Systems Engineering, over £200K average per annum; **EU** – Coordinator, IRSES ESE, PRISM Marie-Curie Training Network; involved in over 15 EU collaborative projects; £10m+ funding; **EPSRC/BBSRC (& other UK-based research councils)** – Principal Investigator and co-Investigator in over 10 funded projects (4 currently) - £10m funding; **Industry** - Principal investigator of over 10 projects with BP, Air Products, Shell, BASF, ABB, Sainsbury; £2m funding
- **Funding** (indicative: **2009-2015**) - **ERC Advanced Grant (EU)** - MOBILE – Modelling, optimization & control of biomedical systems (01/01/2009-31/12/2013, €1.8m – personal award); **EPSRC (UK)** – Molecular Systems Engineering, (EP/E016340/1, 01/02/2007-31/10/2013, £3.5m – co-I along with 5 other CPSE colleagues); Robust Optimization of Nonlinear processes under uncertainty, (EP/I014640, 01/03/2011-28/02/2015, £750,000, PI); Design Toolbox for Energy Efficiency, (EP/G059071/1, 1/5/09-30/9/2013, £485,000, PI); **EU** – MULTIMOD Marie Curie Training Network, (Grant Nr. 238013, 01/04/2009-31/12/2013, £400,000, PI) – OPTICO EU Project, (awarded, £450,000, PI; until summer

2015) – Energy Systems Engineering EU Project (awarded, £250,000; until summer 2015) – Current Projects: EPSRC [1 project], BioBlood, ModLife, Symbiosys [EU projects].

- **Current funding** (Texas A&M University; **2015-now**) – **DoE UCFER** [PI-Awarded], **DoE RAPID** [PI-Awarded; SYNOPSIS \$4.2m; 2017-2022], **CESMII/GCRM DOE** [PI-Awarded; \$2.5m, 2017-2022], **NSF INFEWS** [co-PI- awarded, \$710,000; 2018-2022]; **NSF PAROC** [PI-awarded, \$295,000, 2018-2021]; **Shell Research** [PI-awarded, Gift, \$1,300,000, 2016-2023]; **Elli Lilly** [PI-awarded, \$130,000, 2017-2018]; **SUPERFUND** [co-PI, 2017-2022, awarded, \$900,000]; **ASCEND** [PI awarded, \$250,000, 2020-2022]; **Air to Earth** [PI awarded; \$150,000, 2021-2022]; **Aramco** [PI awarded; Gift, \$300,000, 2021-2022]; **DoE Algae Carbon Capture** [co-PI awarded, \$300,000, 2021-2024]

Research Monographs & Books

1. Pistikopoulos, E. N.; Tian, Y. *Synthesis and Operability Strategies for Computer-aided Modular Process Intensification*; Elsevier; 2022
2. Avraamidou, S; Pistikopoulos, E. N. *Multi-level Optimization and Multi-Parametric Programming*; De Gruyter, 2022
3. Pistikopoulos, E. N.; Diangelakis, N. A.; Oberdieck, R. *Multi-parametric Optimization and Control*; John Wiley & Sons; 2020.
4. Burnak, B; Diangelakis, N. A.; Pistikopoulos, E. N. *Integrated process design and operational optimization via multi-parametric programming*; Morgan & Claypool Publishers, 2020.
5. Pistikopoulos, E. N.; Nascu, I.; Velliou, E. *Modelling, Control and Optimization of Biomedical Systems*; Wiley-VCH; 2018
6. Chinchuluun, A., Pardalos, P. M., Enkhbat, R., Pistikopoulos, E. N., Eds. *Optimization, Simulation, and Control*; Springer: New York, 2013.
7. Georgiadis, M. C., Banga, J. R., Pistikopoulos, E. N., (Series: Pistikopoulos, E. N., Georgiadis, M. C., Dua, V.), Eds. *Dynamic Process Modeling*; Process Systems Engineering 7; Wiley-VCH: Weinheim, 2011.
8. Adjiman, C., Galindo, A., (Series: Pistikopoulos, E. N., Georgiadis, M. C., Dua, V.), Eds. *Molecular Systems Engineering*; Process Systems Engineering 6; Wiley-VCH: Weinheim, 2011.
9. Georgiadis, M. C., Kikkinides, E. S., Pistikopoulos, E. N., (Series: Pistikopoulos, E. N., Georgiadis, M. C., Dua, V.), Eds. *Energy Systems Engineering*; Process Systems Engineering 5; Wiley-VCH: Weinheim, 2011.
10. Papageorgiou, L. G., Georgiadis, M. C., (Series: Pistikopoulos, E. N., Georgiadis, M. C., Dua, V.), Eds. *Supply-Chain Optimization, Part II*; Process Systems Engineering 4; Wiley-VCH: Weinheim, 2011.
11. Papageorgiou, L. G., Georgiadis, M. C., (Series: Pistikopoulos, E. N., Georgiadis, M. C., Dua, V.), Eds. *Supply-Chain Optimization, Part I*; Process Systems Engineering 3; Wiley-VCH: Weinheim, 2011.
12. Pistikopoulos, E. N., Georgiadis, M. C., Dua, V., Eds. *Multi-Parametric Model-Based Control*; Process Systems Engineering 2; Wiley-VCH: Weinheim, 2011.
13. Pistikopoulos, E. N., Georgiadis, M. C., Dua, V., Eds. *Multi-Parametric Programming*; Process Systems Engineering 1; Wiley-VCH: Weinheim, 2011.
14. Pistikopoulos, E. N., Georgiadis, M. C., Kokossis, A. C., Eds. *21st European symposium on computer aided process engineering*; Computer-aided chemical engineering 29; Elsevier: Amsterdam, 2011.
15. Georgiadis, M. C.; Pistikopoulos, E. N. *Energy and Process Integration*; Thermal and Fluid Physics and Engineering; Begell House, Inc: New York - Wallingford (UK), 2006.

Journal Papers

1. Allen, R.C., Baratsas, S.G., Kakodkar, R., Klokkenburg, M., Pistikopoulos, E.N. A multi-period integrated planning and scheduling approach for developing energy systems, *Optimal Control Applications and Methods*, 2022
2. Baratsas, S.G.; Pistikopoulos, E.N.; Avraamidou, S. A quantitative and holistic circular economy assessment framework at the micro level *Computers & Chemical Engineering* 2022, 107697
3. Gordon, C.A.K., Pistikopoulos, E.N. Data-driven and safety-aware holistic production planning *Journal of Loss Prevention in the Process Industries*, 2022, 77, 104754
4. Tian, Y., Meduri, V., Bindlish, R., Pistikopoulos, E.N. A Process Intensification synthesis framework for the design of dividing wall column systems, *Computers & Chemical Engineering*, 2022, 160, 107679
5. Kakodkar, R., He, G., Demirhan, C.D., Gençer, E., Pistikopoulos, E.N. A review of analytical and optimization methodologies for transitions in multi-scale energy systems, *Renewable and Sustainable Energy Reviews*, 2022, 160, 112277
6. Di Martino, M., Avraamidou, S., Pistikopoulos, E.N. A Neural Network Based Superstructure Optimization Approach to Reverse Osmosis Desalination Plants, *Membranes*, 2022, 12(2), 199
7. Beykal, B.; Avraamidou, S.; Pistikopoulos, E.N. Data-driven optimization of mixed-integer bi-level multi-follower integrated planning and scheduling problems under demand uncertainty *Computers & Chemical Engineering* 2022, 156, 107551
8. Baratsas, S.G; Niziolek, A.M.; Onel, O.; et al. A novel quantitative forecasting framework in energy with applications in designing energy-intelligent tax policies *Applied Energy* 2022, 305, 117790
9. Pappas, I.; Diangelakis, N. A.; Pistikopoulos, E. N. Multiparametric/Explicit Nonlinear Model Predictive Control for Quadratically Constrained Problems. *Journal of Process Control* 2021, 103, 55-66.
10. Pappas, I.; Avraamidou, S.; Katz, J; et al Multiobjective Optimization of Mixed-Integer Linear Programming Problems: A Multiparametric Optimization Approach. *Industrial & Engineering Chemistry Research* 2021 60:23, 8493-8502
11. Chen, Z.; Avraamidou, S.; Liu, P.; Li, Z.; Ni, W.; Pistikopoulos, E. N. Optimal Design of Integrated Urban Energy Systems Under Uncertainty and Sustainability Requirements. *Computers & Chemical Engineering* 2021, 107502.
12. Namany, S.; Govindan, R.; Martino, M. D; Pistikopoulos, E. N; Linke, P.; Avraamidou, S.; Al-Ansari, T. An Energy-Water-Food Nexus-based Decision-making Framework to Guide National Priorities in Qatar. *Sustainable Cities and Society* 2021, 103342.
13. Orr, A. A.; Wang, M.; Beykal, B.; Ganesh, H. S.; Hearon, S. E.; Pistikopoulos, E. N.; Phillips, T. D.; Tamamis, P. Combining Experimental Isotherms, Minimalistic Simulations, and a Model to Understand and Predict Chemical Adsorption onto Montmorillonite Clays. *ACS Omega* 2021, 6 (22), 14090-14103.
14. Tian, Y.; Pistikopoulos, E. N. A process intensification synthesis framework for the design of extractive separation systems with material selection. *Journal of Advanced Manufacturing and Processing* 2021, 3(4), e10097.
15. Kotidis, P.; Pappas, I.; Avraamidou, S.; Pistikopoulos, E. N; Kontoravdi, C.; Papathanasiou, M. M DigiGlyc: A hybrid tool for reactive scheduling in cell culture systems. *Computers & Chemical Engineering* 2021, 154, 107460.
16. Baratsas, S. G; Pistikopoulos, E. N; Avraamidou, S. A systems engineering framework for the optimization of food supply chains under circular economy considerations. *Science of The Total Environment* 2021, 794, 148726.

17. Burnak, B.; Katz, J.; Pistikopoulos, E. N. A Space Exploration Algorithm for Multiparametric Programming via Delaunay Triangulation. *Optimization and Engineering* 2021, 22 (1), 555-579.
18. Pappas, I.; Diangelakis, N. A.; Pistikopoulos, E. N. The Exact Solution of Multiparametric Quadratically Constrained Quadratic Programming Problems. *Journal of Global Optimization* 2021, 79, 59-85.
19. Baratsas, S.; Niziolek, A.; Onel, O.; Matthews, L.; Floudas, C. A.; Hallermann, D.; Sorescu, S.; Pistikopoulos, E. N. A framework to predict the price of energy for the end-users with applications to monetary and energy policies. *Nature Communications* 2021, 12:1:18.
20. Tian, Y.; Pappas, I.; Burnak, B.; Katz, J.; Pistikopoulos, E. N. Simultaneous Design & Control of a Reactive Distillation System - A Parametric Optimization & Control Approach. *Chemical Engineering Science* 2021, 116232.
21. Di Martino, M.; Avraamidou, S.; Cook, J.; Pistikopoulos, E. N. An Optimization Framework for the Design of Reverse Osmosis Desalination Plants under Food–Energy–Water Nexus Considerations. *Desalination* 2021, 503, 114937.
22. Demirhan, C. D.; Tso, W. W.; Powell, J. B.; Pistikopoulos, E. N. A Multi-Scale Energy Systems Engineering Approach Towards Integrated Multi-Product Network Optimization. *Applied Energy* 2021, 281, 116020.
23. Pistikopoulos, E. N.; Tian, Y.; Bindlish, R. Operability and Control in Process Intensification and Modular Design: Challenges and Opportunities. *AIChE Journal* 2021, 147, 107252.
24. Pistikopoulos, E. N.; Barbosa-Povoa, A.; Lee, J. H.; Misener, R.; Mitsos, A.; Reklaitis, G. V.; Venkatasubramanian, V.; You, F.; Gani, R. Process Systems Engineering - The Generation Next?. *Computers & Chemical Engineering* 2021, 67:5, e17204.
25. Avraamidou, S.; Pistikopoulos, E. N. Adjustable Robust Optimization through multiparametric programming. *Optimization Letters* 2020, 14 (4), 873-887.
26. Tso, W. W.; Demirhan, C. D.; Floudas, C. A.; Pistikopoulos, E. N. Multi-Scale Energy Systems Engineering for Optimal Natural Gas Utilization. *Catalysis Today* 2020, 356, 18-26.
27. Ogumerem, G. S.; Pistikopoulos, E. N. Parametric Optimization and Control for a Smart Proton Exchange Membrane Water Electrolysis (PEMWE) System. *Journal of Process Control* 2020, 91, 37-49.
28. Beykal, B.; Avraamidou, S.; Pistikopoulos, P. E. I.; Onel, M.; Pistikopoulos, E. N. DOMINO: Data-driven Optimization of bi-level Mixed-Integer NOnlinear Problems. *Journal of Global Optimization* 2020, 78 (1), 1-36.
29. Onel, M.; Burnak, B.; Pistikopoulos, E. N. Integrated Data-Driven Process Monitoring and Explicit Fault-Tolerant Multiparametric Control. *Industrial & Engineering Chemistry Research* 2020, 59, 2291-2306.
30. Tian, Y.; Pappas, I.; Burnak, B.; Katz, J.; Pistikopoulos, E. N. A Systematic Framework for the Synthesis of Operable Process Intensification Systems - Reactive Separation Systems. *Computers & Chemical Engineering* 2020, 134, 106675.
31. Goel, P.; Jain, P.; Pasman, H. J.; Pistikopoulos, E. N.; Datta, A.; Mannan, M. S. Integration of Data Analytics with Cloud Services for Safer Process Systems, Application Examples and Implementation Challenges. *Journal of Loss Prevention in the Process Industries* 2020, 68, 104316.
32. Katz, J.; Pappas, I.; Avraamidou, S.; Pistikopoulos, E. N. Integrating Deep Learning Models and Multiparametric Programming. *Computers & Chemical Engineering* 2020, 138, 106801.

33. Avraamidou, S.; Baratsas, S.; Tian, Y.; Pistikopoulos, E. N. Circular Economy - a challenge and an opportunity for Process Systems Engineering. *Computers & Chemical Engineering* 2020, 133, 106629.
34. Beykal, B.; Onel, M.; Onel, O.; Pistikopoulos, E. N. A Data-Driven Optimization Algorithm for Differential Algebraic Equations with Numerical Infeasibilities. *AIChE Journal* 2020, 66 (10), e16657.
35. Tso, W. W.; Burnak, B.; Pistikopoulos, E. N. HY-POP: Hyperparameter Optimization of Machine Learning Models Through Parametric Programming. *Computers & Chemical Engineering* 2020, 139, 106902.
36. Tso, W. W.; Demirhan, C. D.; Heuberger, C. F.; Powell, J. B.; Pistikopoulos, E. N. A Hierarchical Clustering Decomposition Algorithm for Optimizing Renewable Power Systems with Storage. *Applied Energy* 2020, 270, 115190.
37. Demirhan, C. D.; Tso, W. W.; Powell, J. B.; Heuberger, C. F.; Pistikopoulos, E. N. A Multi-scale Energy Systems Engineering Approach for Renewable Power Generation and Storage Optimization. *Industrial & Engineering Chemistry Research* 2020, 59 (16), 7706-7721.
38. Tian, Y.; Pistikopoulos, E. N. Towards an Envelope of Design Solutions for Combined/Intensified Reaction/Separation Systems. *Industrial and Engineering Chemistry Research* 2020, 59 (24), 11350-11354.
39. Katz, J.; Pistikopoulos, E. N. A Partial Multiparametric Optimization Strategy to Improve the Computational Performance of Model Predictive Control. *Computers & Chemical Engineering* 2020, 142, 107057.
40. Mukherjee*, R.; Beykal*, B.; Szafran, A. T.; Onel, M.; Stossi, F.; Mancini, M. G.; Lloyd, D.; Wright, F. A.; Zhou, L.; Mancini, M. A.; Pistikopoulos, E. N. Classification of estrogenic compounds by coupling high content analysis and machine learning algorithms. *PLOS Computational Biology* 2020, 16 (9), e1008191.
41. Burnak, B.; Pistikopoulos, E. N. Integrated process design, scheduling, and model predictive control of batch processes with closed-loop implementation. *AIChE Journal* 2020, 66 (10), e16981.
42. Demirhan, C. D.; Boukouvala, F.; Kyungwon, K.; Song, H.; Tso, W. W.; Floudas, C. A.; Pistikopoulos, E. N. An Integrated Data-Driven Modeling & Global Optimization Approach for Multi-Period Nonlinear Production Planning Problems. *Computers & Chemical Engineering* 2020, 141, 107007.
43. Bi, K.; Beykal, B.; Avraamidou, S.; Pappas, I.; Pistikopoulos, E. N.; Qiu, T. Integrated Modeling of Transfer Learning and Intelligent Heuristic Optimization for Steam Cracking Process. *Industrial & Engineering Chemistry Research* 2020, 59, 16357-16367.
44. Gordon, C. A. K.; Burnak, B.; Onel, M.; Pistikopoulos, E. N. Data-Driven Prescriptive Maintenance: Failure Prediction using Ensemble Support Vector Classification for Optimal Process and Maintenance Scheduling. *Industrial & Engineering Chemistry Research* 2020, 58, 19607-19622.
45. El-Halwagi, M. M.; Segupta, D.; Pistikopoulos, E. N.; Eljack, F.; Kazi, M. Disaster-resilient Design of Manufacturing Facilities through Process Integration: Principal Strategies, Perspectives, and Research Challenges. *Frontiers in Sustainability* 2020, 1, 8.
46. Pappas, I.; Kenefake, D.; Burnak, B.; Avraamidou, S.; Ganesh, H. S.; Katz, J.; Diangelakis, N. A.; Pistikopoulos, E. N. Multiparametric Programming in Process Systems Engineering: Recent Developments and Path Forward. *Frontiers in Chemical Engineering* 2020, Accepted Manuscript.
47. Demirhan, C. D.; Tso, W. W.; Powell, J. B.; Pistikopoulos, E. N. Sustainable Ammonia Production Through Process Synthesis and Global Optimization. *AIChE Journal* 2019, 65, 1-23.

48. Avraamidou, S.; Pistikopoulos, E. N. A Multi-Parametric optimization approach for bilevel mixed-integer linear and quadratic programming problems. *Computers & Chemical Engineering* 2019, 125, 98-113.
49. Avraamidou, S.; Pistikopoulos, E. N. Multi-parametric global optimization approach for tri-level mixed-integer linear optimization problems. *Journal of Global Optimization* 2019, 74 (3), 443-465.
50. Avraamidou, S.; Pistikopoulos, E. N. B-POP: Bi-level Parametric Optimization Toolbox. *Computers & Chemical Engineering* 2019, 122, 193-202.
51. Sun, M.; Villanueva, M. E.; Pistikopoulos, E. N.; Chachuat, B. Methodology for Robust Multi-Parametric Control in Linear Continuous-Time Systems. *Journal of Process Control* 2019, 73, 58-74.
52. Papathanasiou, M. M.; Burnak, B.; Katz, J.; Shah, N.; Pistikopoulos, E. N. Assisting continuous biomanufacturing through advanced control in downstream purification. *Computers & Chemical Engineering, Special Issue* 2019, 125, 232-248.
53. Mroue, A. M.; Mohtar, R. H.; Pistikopoulos, E. N.; Holtzapfle, M. T. Energy Portfolio Assessment Tool (EPAT): Sustainable energy planning using the WEF nexus approach - Texas case. *Science of The Total Environment* 2019, 648, 1649-1664.
54. Onel, M.; Kieslich, C. A.; Pistikopoulos, E. N. A Nonlinear Support Vector Machine based Feature Selection Approach for Fault Detection and Diagnosis: Application to the Tennessee Eastman Process. *AIChE Journal* 2019, 65, 992-1005.
55. Nie, Y.; Avraamidou, S.; Xiao, X.; Pistikopoulos, E. N.; Li, J.; Zeng, Y.; Song, F.; Yu, J.; Zhu, M. A Food-Energy-Water Nexus approach for land use optimization. *Science of the Total Environment* 2019, 659, 7-19.
56. Jain, P.; Mannan, M. S.; Pistikopoulos, E. N. Process resilience analysis based data-driven maintenance optimization: application to cooling tower operations. *Computers & Chemical Engineering* 2019, 121, 27-45.
57. Tian, Y.; Pistikopoulos, E. N. Synthesis of Operable Process Intensification Systems - Steady-state Design with Safety and Operability Considerations. *Industrial & Engineering Chemistry Research* 2019, 58 (15), 6049-6068.
58. Tian, Y.; Pistikopoulos, E. N. Synthesis of operable process intensification systems: advances and challenges. *Current Opinion in Chemical Engineering* 2019, 25, 101-107.
59. Demirhan, C. D.; Tso, W. W.; Ogumerem, G. S.; Pistikopoulos, E. N. Energy Systems Engineering - A Guided Tour. *BMC Chemical Engineering* 2019, 1, 11
60. Burnak, B.; Diangelakis, N. A.; Katz, J.; Pistikopoulos, E. N. Integrated process design, scheduling, and control using multiparametric programming. *Computers & Chemical Engineering, Special Issue* 2019, 125, 164-184.
61. Goel, P.; Pistikopoulos, E. N.; Mannan, M. S.; Datta, A. A data-driven Alarm and Event management framework. *Journal of Loss Prevention in the Process Industries* 2019, 62, 103959.
62. Jain, P.; Diangelakis, N. A.; Mannan, M. S.; Pistikopoulos, E. N. Process resilience based process upset events prediction analysis: application to a batch reactor case study. *Journal of Loss Prevention in the Process Industries* 2019, 62, 103957.
63. Ogumerem, G. S.; Pistikopoulos, E. N. Parametric Optimization and Control Towards the Design of a Smart Metal Hydride Refueling System. *AIChE Journal* **2019**, 65, 16680.
64. Onel, M.; Beykal, B.; Ferguson, K.; Chiu, W. A.; McDonald, T. J.; House, J. S.; Wright, F. A.; Sheen, D. A.; Rusyn, I.; Pistikopoulos, E. N. Grouping of Complex Substances Using Analytical Chemistry Data: A Framework for Quantitative Evaluation and Visualization. *PLoS ONE* **2019**, 14, e0223517.
65. Burnak, B.; Diangelakis, N. A.; Pistikopoulos, E. N. Towards the grand unification of process design, control, and scheduling - Utopia or reality? *Processes* **2019**, 7 (7), 461.

66. Lopes, T.; Beruski, O.; Manthanwar, A. M.; Korkischko, I.; Pugliesi, R.; and Stanojev Pereira, M. A.; Garcia Andrade, M. L.; Pistikopoulos, E. N.; Perez, J.; Fonseca, F. C.; Meneghini, J. R.; Kucernak, A. Spatially resolved oxygen reaction, water, and temperature distribution: Experimental results as a function of flow field and implications for polymer electrolyte fuel cell operation. *Applied Energy* **2019**, *252*, 113421.
67. Edgar, T. F.; Pistikopoulos, E. N. Smart Manufacturing and Energy Systems. *Computers & Chemical Engineering* **2018**, *114*, 130-144.
68. Jain, P.; Paskan, H. J.; Waldram, S. P.; Pistikopoulos, E. N.; Mannan, M. S. Process Resilience Analysis Framework (PRAF): a systems approach for improved risk and safety management. *Journal of Loss Prevention in the Process Industries* **2018**, *53*, 61-73.
69. Beykal, B.; Boukouvala, F.; Floudas, C. A.; Pistikopoulos, E. N. Optimal Design of Energy Systems Using Constrained Grey-Box Multi-Objective Optimization. *Computers & Chemical Engineering* **2018**, *116*, 488-502.
70. Ogumerem, G. S.; Kim, C.; Kesisoglou, I.; Diangelakis, N. A.; Pistikopoulos, E. N. A multi-objective optimization for the design and operation of a hydrogen network for transportation fuel. *Chemical Engineering Research and Design* **2018**, *131*, 279-292.
71. Onel, M.; Kieslich, C. A.; Guzman, Y. A.; Floudas, C. A.; Pistikopoulos, E. N. Big Data Approach to Batch Process Monitoring: Simultaneous Fault Detection and Identification Using Nonlinear Support Vector Machine-based Feature Selection. *Computers & Chemical Engineering* **2018**, *115*, 46-63.
72. Tso, W. W.; Niziolek, A. M.; Onel, O.; Demirhan, C. D.; Floudas, C. A.; Pistikopoulos, E. N. Enhancing Natural Gas-to-Liquids (GTL) Processes Through Chemical Looping for Syngas Production: Process Synthesis and Global Optimization. *Computers & Chemical Engineering* **2018**, *113*, 222-239.
73. Niziolek, A. M.; Onel, O.; Tian, Y.; Floudas, C. A.; Pistikopoulos, E. N. Municipal Solid Waste to Liquid Transportation Fuels - Part III: An Optimization-Based Nationwide Supply Chain Management Framework. *Computers & Chemical Engineering* **2018**, *116*, 468-487.
74. Burnak, B.; Katz, J.; Diangelakis, N. A.; Pistikopoulos, E. N. Simultaneous Process Scheduling and Control: A Multiparametric Programming Based Approach. *Industrial & Engineering Chemistry Research* **2018**, *57* (11), 3963-3976.
75. Misener, R.; Allenby, M. C.; Fuentes-Garí, M.; Gupta, K.; Wiggins, T.; Panoskaltsis, N.; Pistikopoulos, E. N.; Mantalaris, A. Stem Cell Biomanufacturing under Uncertainty: A Case Study in Optimizing Red Blood Cell Production. *AIChE Journal* **2018**, *64* (8), 3011-3022.
76. Daher, B.; Mohtar, R. H.; Pistikopoulos, E. N.; Portney, K. E.; Kaiser, R.; Saad, W. Developing Socio-Techno-Economic-Political (STEP) Solutions for Addressing Resource Nexus Hotspots. *Sustainability* **2018**, *10* (2), 512.
77. Xu, W.; Tang, L.; Pistikopoulos, E. N. Modeling and solution for steelmaking scheduling with batching decisions and energy constraints. *Computers & Chemical Engineering* **2018**, *116*, 368-384.
78. Jain, P.; Chakraborty, A.; Pistikopoulos, E. N.; Mannan, M. Resilience-based process upset events prediction analysis for uncertainty management using Bayesian deep learning: application to a PVC process system. *Industrial & Engineering Chemistry Research* **2018**, *57* (43), 14822-14836.
79. Tian, Y.; Demirel, S. E.; Hasan, M. M. F.; Pistikopoulos, E. N. An Overview of Process Systems Engineering Approaches for Process Intensification: State of the Art. *Chemical Engineering & Processing: Process Intensification* **2018**, *133*, 160-210.
80. Ogumerem, G. S.; Pistikopoulos, E. N. Dynamic Modeling, Optimization and Explicit Control of a PEM Water Electrolysis Process. *Smart and Sustainable Manufacturing Systems* **2018**, *2*, 25-43.

81. Katz, J.; Burnak, B.; Pistikopoulos, E. N. The Impact of Model Approximation in Multiparametric Model Predictive Control. *Chemical Engineering Research and Design* **2018**, *139*, 211-223.
82. Oberdieck, R.; Diangelakis, N. A.; Avraamidou, S.; Pistikopoulos, E. N. On unbounded and binary parameters in multi-parametric programming: Applications to mixed-integer bilevel optimization and duality theory. *Journal of Global Optimization* **2017**, *69* (3), 587-606.
83. Oberdieck, R.; Diangelakis, N. A.; Pistikopoulos, E. N. Explicit Model Predictive Control: A connected-graph approach. *Automatica* **2017**, *76*, 103-112.
84. Diangelakis, N. A.; Pistikopoulos, E. N. A multi-scale energy systems engineering approach to residential combined heat and power systems. *Computers & Chemical Engineering* **2017**, *102*, 128-138.
85. Nascu, I.; Oberdieck, R.; Pistikopoulos, E. N. Explicit Hybrid Model Predictive Control Strategies for Intravenous Anaesthesia. *Computers & Chemical Engineering* **2017**, *106*, 814-825.
86. Nascu, I.; Pistikopoulos, E. N. Modeling, Estimation and Control of the Anaesthesia Process. *Computers & Chemical Engineering* **2017**, *107*, 318-332.
87. Papathanasiou, M. M.; Steinebach, F.; Mueller-Spaeth, T.; Morbidelli, M.; Mantalaris, A.; Pistikopoulos, E. N. Intelligent, model-based control towards the intensification of downstream processes. *Computers & Chemical Engineering* **2017**, *105*, 173-184.
88. Diangelakis, N. A.; Burnak, B.; Katz, J. P.; Pistikopoulos, E. N. Process Design and Control optimization: A simultaneous approach by multi-parametric programming. *AIChE Journal* **2017**, *63* (11), 4827-4846.
89. Papathanasiou, M. M.; Quiroga-Campano, A. L.; Steinebach, F.; Elviro, M.; Mantalaris, A.; Pistikopoulos, E. N. Advanced model-based control strategies for the intensification of upstream and downstream processing in mAb production. *Biotechnology Progress* **2017**, *33*, 966-988.
90. McCarl, B. A.; Yang, Y.; Schwabe, K.; A., E. B.; Mondal, A. H.; Ringler, C.; Pistikopoulos, E. N. Model Use in WEF Nexus Analysis: a Review of Issues. *Current Sustainable/Renewable Energy Reports* **2017**, *4* (3), 144-152.
91. McCarl, B. A.; Yang, Y.; Srinivasan, R.; Pistikopoulos, E. N.; Mohtar, R. H. Data for WEF Nexus Analysis: a Review of Issues. *Current Sustainable/Renewable Energy Reports* **2017**, *4* (3), 137-143.
92. Diangelakis, N. A.; Avraamidou, S.; Pistikopoulos, E. N. Decentralized Multiparametric Model Predictive Control for Domestic Combined Heat and Power Systems. *Industrial & Engineering Chemistry Research* **2016**, *55* (12), 3313-3326.
93. Oberdieck, R.; Pistikopoulos, E. N. Multi-objective optimization with convex quadratic cost functions: A multi-parametric programming approach. *Computers & Chemical Engineering* **2016**, *85*, 36-39.
94. Pistikopoulos, E. N.; Diangelakis, N. A. Towards the integration of process design, control and scheduling: Are we getting closer?. *Computers & Chemical Engineering* **2016**, *91*, 85-92.
95. Papathanasiou, M. M.; Avraamidou, S.; Steinebach, F.; Oberdieck, R.; Mueller-Spaeth, T.; Morbidelli, M.; Mantalaris, A.; Pistikopoulos, E. N. Advanced Control Strategies for the Multicolumn Countercurrent Solvent Gradient Purification Process (MCSGP). *AIChE Journal* **2016**, *62* (7), 2341-2357.

96. Kostoglou, M.; Fuentes-Garí, M.; García Münzer, D. G.; Georgiadis, M. C.; Panoskaltsis, N.; Pistikopoulos, E. N.; Mantalaris, A. A comprehensive mathematical analysis of a novel multistage population balance model for cell proliferation. *Computers & Chemical Engineering* **2016**, *91*, 157-166.
97. Savvopoulos, S.; Misener, R.; Panoskaltsis, N.; Pistikopoulos, E. N.; Mantalaris, A. A Personalized Framework for Dynamic Modeling of Disease Trajectories in Chronic Lymphocytic Leukemia. *IEEE Transactions on Biomedical Engineering* **2016**, *63* (11), 2396-2404.
98. Tsipa, A.; Koutinas, M.; Pistikopoulos, E. N.; Mantalaris, A. Transcriptional kinetics of the cross-talk between the ortho-cleavage and TOL pathways of toluene biodegradation in Pseudomonas putida mt-2. *Journal of Biotechnology* **2016**, *228*, 112-123.
99. Sun, M.; Chachuat, B.; Pistikopoulos, E. N. Design of multi-parametric NCO tracking controllers for linear dynamic systems. *Computers & Chemical Engineering* **2016**, *92*, 67-77.
100. Oberdieck, R.; Diangelakis, N. A.; Papathanasiou, M. M.; Nascu, I.; Pistikopoulos, E. N. POP - Parametric Optimization Toolbox. *Industrial & Engineering Chemistry Research* **2016**, *55* (33), 8979-8991.
101. Nascu, I.; Pistikopoulos, E. N. A Multiparametric Model-Based Optimization & Control Approach to Anaesthesia. *The Canadian Journal of Chemical Engineering* **2016**, *94* (11), 2125-2137
102. Oberdieck, R.; Diangelakis, N. A.; Nascu, I.; Papathanasiou, M. M.; Sun, M.; Avraamidou, S.; Pistikopoulos, E. N. On multi-parametric programming and its applications in process systems engineering. *Chemical Engineering Research and Design* **2016**, *116*, 61-82.
103. García Münzer, D. G.; Ivarsson, M.; Usaku, C.; Habicher, T.; Soos, M.; Morbidelli, M.; Pistikopoulos, E. N.; Mantalaris, A. An unstructured model of metabolic and temperature dependent cell cycle arrest in hybridoma batch and fed-batch cultures. *Biochemical Engineering Journal* **2015**, *93*, 260-273.
104. García Münzer, D. G.; Kostoglou, M.; Georgiadis, M. C.; Pistikopoulos, E. N.; Mantalaris, A. Cyclin and DNA Distributed Cell Cycle Model for GS-NS0 Cells. *PLoS Computational Biology* **2015**, *11* (2), e1004062.
105. Kiparissides, A.; Pistikopoulos, E. N.; Mantalaris, A. On the model-based optimization of secreting mammalian cell (GS-NS0) cultures. *Biotechnology and Bioengineering* **2015**, *112* (3), 536-548.
106. Kopanos, G. M.; Xenos, D. P.; Ciccotti, M.; Pistikopoulos, E. N.; Thornhill, N. F. Optimization of a network of compressors in parallel: Operational and maintenance planning - The air separation plant case. *Applied Energy* **2015**, *146*, 453-470.
107. Naşcu, I.; Krieger, A.; Ionescu, C. M.; Pistikopoulos, E. N. Advanced model-based control studies for the induction and maintenance of intravenous anaesthesia. *IEEE Transactions on Biomedical Engineering* **2015**, *62* (3), 832-841.
108. Pistikopoulos, E. N.; Diangelakis, N. A.; Oberdieck, R.; Papathanasiou, M. M.; Nascu, I.; Sun, M. PAROC-An integrated framework and software platform for the optimisation and advanced model-based control of process systems. *Chemical Engineering Science* **2015**, *136*, 115-138.
109. Rivotti, P.; Pistikopoulos, E. N. A dynamic programming based approach for explicit model predictive control of hybrid systems. *Computers and Chemical Engineering* **2015**, *72*, 126-144.
110. Velliou, E. G.; Dos Santos, S. B.; Papathanasiou, M. M.; Fuentes-Gari, M.; Misener, R.; Panoskaltsis, N.; Pistikopoulos, E. N.; Mantalaris, A. Towards unravelling the kinetics of an acute myeloid leukaemia model system under oxidative and starvation stress: a

- comparison between two- and three-dimensional cultures. *Bioprocess and Biosystems Engineering* **2015**, *38* (8), 1589-1600.
111. Fuentes-Garí, M.; Velliou, E.; Misener, R.; Pefani, E.; Rende, M.; Panoskaltis, N.; Mantalaris, A.; Pistikopoulos, E. N. A systematic framework for the design, simulation and optimization of personalized healthcare: Making and healing blood. *Computers and Chemical Engineering* **2015**, *81*, 80-93.
 112. Zavitsanou, S.; Mantalaris, A.; Georgiadis, M.; Pistikopoulos, E. N. In-silico Closed Loop Control Validation Studies for Optimal Insulin Delivery in Type 1 Diabetes. *IEEE Transactions on Biomedical Engineering* **2015**, *62* (10), 2369-2378.
 113. Oberdieck, R.; Pistikopoulos, E. N. Explicit hybrid model-predictive control: The exact solution. *Automatica* **2015**, *58*, 152-159.
 114. Silvente, J.; Kopanos, G. M.; Pistikopoulos, E. N.; Espuna, A. A rolling horizon optimization framework for the simultaneous energy supply and demand planning in microgrids. *Applied Energy* **2015**, *155*, 485-501.
 115. Fuentes-Garí, M.; Misener, R.; Georgiadis, M. C.; Kostoglou, M.; Panoskaltis, N.; Mantalaris, A.; Pistikopoulos, E. N. Selecting a differential equation cell cycle model for simulating leukemia treatment. *Industrial & Engineering Chemistry Research* **2015**, *54* (36), 8847-8859.
 116. Fuentes-Garí, M.; Misener, R.; García Münzer, D. G.; Velliou, E.; Georgiadis, M. C.; Kostoglou, M.; Pistikopoulos, E. N.; Panoskaltis, N.; Mantalaris, A. A mathematical model of subpopulation kinetics for the deconvolution of leukaemia heterogeneity. *Journal of The Royal Society Interface* **2015**, *12* (108), 20150276.
 117. Chang, H.; Krieger, A.; Astolfi, A.; Pistikopoulos, E. N. Robust multi-parametric model predictive control for LPV systems with application to anaesthesia. *Journal of Process Control* **2014**, *24* (10), 1538-1547.
 118. Diangelakis, N. A.; Panos, C.; Pistikopoulos, E. N. Design optimization of an internal combustion engine powered CHP system for residential scale application. *Computational Management Science* **2014**, *11* (3), 237-266.
 119. Kiparissides, A.; Georgakis, C.; Mantalaris, A.; Pistikopoulos, E. N. Design of in silico experiments as a tool for nonlinear sensitivity analysis of knowledge-driven models. *Industrial and Engineering Chemistry Research* **2014**, *53* (18), 7517-7525.
 120. Koltsaklis, N. E.; Dagoumas, A. S.; Kopanos, G. M.; Pistikopoulos, E. N.; Georgiadis, M. C. A spatial multi-period long-term energy planning model: A case study of the Greek power system. *Applied Energy* **2014**, *115*, 456-482.
 121. Kopanos, G. M.; Pistikopoulos, E. N. Reactive scheduling by a multiparametric programming rolling horizon framework: A case of a network of combined heat and power units. *Industrial and Engineering Chemistry Research* **2014**, *53* (11), 4366-4386.
 122. Krieger, A.; Pistikopoulos, E. N. Model predictive control of anesthesia under uncertainty. *Computers and Chemical Engineering* **2014**, *71*, 699-707.
 123. Krieger, A.; Panoskaltis, N.; Mantalaris, A.; Georgiadis, M. C.; Pistikopoulos, E. N. Modeling and analysis of individualized pharmacokinetics and pharmacodynamics for volatile anesthesia. *IEEE Transactions on Biomedical Engineering* **2014**, *61* (1), 25-34.
 124. Marzinek, J. K.; Bond, P. J.; Lian, G.; Zhao, Y.; Han, L.; Noro, M. G.; Pistikopoulos, E. N.; Mantalaris, A. Free energy predictions of ligand binding to an alpha-helix using steered molecular dynamics and umbrella sampling simulations. *Journal of Chemical Information and Modeling* **2014**, *54* (7), 2093-2104.
 125. Misener, R.; Fuentes-Garí, M.; Rende, M.; Velliou, E.; Panoskaltis, N.; Pistikopoulos, E. N.; Mantalaris, A. Global superstructure optimisation of red blood cell production in a parallelised hollow fibre bioreactor. *Computers and Chemical Engineering* **2014**, *71*, 532-553.

126. Oberdieck, R.; Wittmann-Hohlbein, M.; Pistikopoulos, E. N. A branch and bound method for the solution of multiparametric mixed integer linear programming problems. *Journal of Global Optimization* **2014**, *59* (2-3), 527-543.
127. Pefani, E.; Panoskaltis, N.; Mantalaris, A.; Georgiadis, M. C.; Pistikopoulos, E. N. Chemotherapy drug scheduling for the induction treatment of patients with acute myeloid leukemia. *IEEE Transactions on Biomedical Engineering* **2014**, *61* (7), 2049-2056.
128. Rivotti, P.; Pistikopoulos, E. N. Constrained dynamic programming of mixed-integer linear problems by multi-parametric programming. *Computers and Chemical Engineering* **2014**, *70*, 172-179.
129. Wittmann-Hohlbein, M.; Pistikopoulos, E. N. Approximate solution of mp-MILP problems using piecewise affine relaxation of bilinear terms. *Computers and Chemical Engineering* **2014**, *61*, 136-155.
130. Zhao, Y.; Marzinek, J. K.; Bond, P. J.; Chen, L.; Li, Q.; Mantalaris, A.; Pistikopoulos, E. N.; Noro, M. G.; Han, L.; Lian, G. A study on Fe²⁺ - textgreekalpha-helical-rich keratin complex formation using isothermal titration calorimetry and molecular dynamics simulation. *Journal of Pharmaceutical Sciences* **2014**, *103* (4), 1224-1232.
131. Domínguez, L. F.; Pistikopoulos, E. N. A quadratic approximation-based algorithm for the solution of multiparametric mixed-integer nonlinear programming problems. *AIChE Journal* **2013**, *59* (2), 483-495.
132. García Münzer, D. G.; Kostoglou, M.; Georgiadis, M. C.; Pistikopoulos, E. N.; Mantalaris, A. Developing a cyclin blueprint as a tool for mapping the cell cycle in GS-NS0. *Biochemical Engineering Journal* **2013**, *81*, 97-107.
133. Khajuria, H.; Pistikopoulos, E. N. Optimization and Control of Pressure Swing Adsorption Processes Under Uncertainty. *AIChE Journal* **2013**, *59* (1), 120-131.
134. Koltsaklis, N. E.; Dagoumas, A. S.; Kopanos, G. M.; Pistikopoulos, E. N.; Georgiadis, M. C. A mathematical programming approach to the optimal long-term national energy planning. *Chemical Engineering Transactions* **2013**, *35*, 625-630.
135. Kopanos, G. M.; Georgiadis, M. C.; Pistikopoulos, E. N. Energy production planning of a network of micro combined heat and power generators. *Applied Energy* **2013**, *102*, 1522-1534.
136. Kouramas, K. I.; Panos, C.; Faísca, N. P.; Pistikopoulos, E. N. An algorithm for robust explicit/multi-parametric model predictive control. *Automatica* **2013**, *49* (2), 381-389.
137. Lambert, R. S. C.; Rivotti, P.; Pistikopoulos, E. N. A Monte-Carlo based model approximation technique for linear model predictive control of nonlinear systems. *Computers and Chemical Engineering* **2013**, *54*, 60-67.
138. Liu, P.; Georgiadis, M. C.; Pistikopoulos, E. N. An energy systems engineering approach for the design and operation of microgrids in residential applications. *Chemical Engineering Research and Design* **2013**, *91* (10), 2054-2069.
139. Mansoornejad, B.; Pistikopoulos, E. N.; Stuart, P. R. Scenario-based strategic supply chain design and analysis for the forest biorefinery using an operational supply chain model. *International Journal of Production Economics* **2013**, *144* (2), 618-634.
140. Mansoornejad, B.; Pistikopoulos, E. N.; Stuart, P. Metrics for evaluating the forest biorefinery supply chain performance. *Computers and Chemical Engineering* **2013**, *54*, 125-139.
141. Marzinek, J. K.; Lian, G.; Mantalaris, A.; Pistikopoulos, E. N.; Zhao, Y.; Han, L.; Chen, L.; Bond, P. J.; Noro, M. G. Molecular and thermodynamic basis for EGCG-Keratin interaction-part I: Molecular dynamics simulations. *AIChE Journal* **2013**, *59* (12), 4816-4823.

142. Pefani, E.; Panoskaltsis, N.; Mantalaris, A.; Georgiadis, M. C.; Pistikopoulos, E. N. Design of optimal patient-specific chemotherapy protocols for the treatment of acute myeloid leukemia (AML). *Computers and Chemical Engineering* **2013**, *57*, 187-195.
143. Voelker, A.; Kouramas, K.; Pistikopoulos, E. N. Simultaneous design of explicit/multi-parametric constrained moving horizon estimation and robust model predictive control. *Computers and Chemical Engineering* **2013**, *54*, 24-33.
144. Voelker, A.; Kouramas, K.; Pistikopoulos, E. N. Moving horizon estimation: Error dynamics and bounding error sets for robust control. *Automatica* **2013**, *49* (4), 943-948.
145. Wittmann-Hohlbein, M.; Pistikopoulos, E. N. Proactive scheduling of batch processes by a combined robust optimization and multiparametric programming approach. *AIChE Journal* **2013**, *59* (11), 4184-4211.
146. Wittmann-Hohlbein, M.; Pistikopoulos, E. N. On the global solution of multi-parametric mixed integer linear programming problems. *Journal of Global Optimization* **2013**, *57* (1), 51-73.
147. Yeo, D.; Kiparissides, A.; Cha, J. M.; Aguilar-Gallardo, C.; Polak, J. M.; Tsiridis, E.; Pistikopoulos, E. N.; Mantalaris, A. Improving Embryonic Stem Cell Expansion through the Combination of Perfusion and Bioprocess Model Design. *PLoS ONE* **2013**, *8* (12), e81728.
148. Zhao, Y.; Chen, L.; Han, L.; Marzinek, J. K.; Mantalaris, A.; Pistikopoulos, E. N.; Lian, G.; Bond, P. J.; Noro, M. G. Molecular and thermodynamic basis for EGCG-Keratin interaction-part II: Experimental investigation. *AIChE Journal* **2013**, *59* (12), 4824-4827.
149. Zhao, Y.; Pistikopoulos, E. N. Dynamic modelling and parametric control for the polymer electrolyte membrane fuel cell system. *Journal of Power Sources* **2013**, *232*, 270-278.
150. Zhou, Z.; Zhang, J.; Liu, P.; Li, Z.; Georgiadis, M. C.; Pistikopoulos, E. N. A two-stage stochastic programming model for the optimal design of distributed energy systems. *Applied Energy* **2013**, *103*, 135-144.
151. Zhou, Z.; Liu, P.; Li, Z.; Pistikopoulos, E. N.; Georgiadis, M. C. Impacts of equipment off-design characteristics on the optimal design and operation of combined cooling, heating and power systems. *Computers and Chemical Engineering* **2013**, *48*, 40-47.
152. Ziogou, C.; Pistikopoulos, E. N.; Georgiadis, M. C.; Voutetakis, S.; Papadopoulou, S. Empowering the performance of advanced NMPC by multiparametric programming - An application to a PEM fuel cell system. *Industrial and Engineering Chemistry Research* **2013**, *52* (13), 4863-4873.
153. He, F.; Li, Z.; Liu, P.; Ma, L.; Pistikopoulos, E. N. Operation window and part-load performance study of a syngas fired gas turbine. *Applied Energy* **2012**, *89* (1), 133-141.
154. Ho, Y.; Kiparissides, A.; Pistikopoulos, E. N.; Mantalaris, A. Computational approach for understanding and improving GS-NS0 antibody production under hyperosmotic conditions. *Journal of Bioscience and Bioengineering* **2012**, *113* (1), 88-98.
155. Klemeš, J. J.; Pistikopoulos, E. N.; Georgiadis, M. C.; Lund, H. Energy systems engineering. *Energy* **2012**, *44* (1), 2-5.
156. Koutinas, M.; Kiparissides, A.; Pistikopoulos, E. N.; Mantalaris, A. Bioprocess systems engineering: Transferring traditional process engineering principles to industrial biotechnology. *Computational and Structural Biotechnology Journal* **2012**, *3* (4),.
157. Panos, C.; Kouramas, K. I.; Georgiadis, M. C.; Pistikopoulos, E. N. Modelling and explicit model predictive control for PEM fuel cell systems. *Chemical Engineering Science* **2012**, *67* (1), 15-25.
158. Pistikopoulos, E. N. From multi-parametric programming theory to MPC-on-a-chip multi-scale systems applications. *Computers and Chemical Engineering* **2012**, *47*, 57-66.

159. Pistikopoulos, E. N.; Domínguez, L.; Panos, C.; Kouramas, K.; Chinchuluun, A. Theoretical and algorithmic advances in multi-parametric programming and control. *Computational Management Science* **2012**, *9* (2), 183-203.
160. Rivotti, P.; Lambert, R. S. C.; Pistikopoulos, E. N. Combined model approximation techniques and multiparametric programming for explicit nonlinear model predictive control. *Computers and Chemical Engineering* **2012**, *42*, 277-287.
161. Wittmann-Hohlbein, M.; Pistikopoulos, E. N. A two-stage method for the approximate solution of general multiparametric mixed-integer linear programming problems. *Industrial and Engineering Chemistry Research* **2012**, *51* (23), 8095-8107.
162. Domínguez, L. F.; Pistikopoulos, E. N. Recent advances in explicit multiparametric nonlinear model predictive control. *Industrial and Engineering Chemistry Research* **2011**, *50* (2), 609-619.
163. Khajuria, H.; Pistikopoulos, E. N. Dynamic modeling and explicit/multi-parametric MPC control of pressure swing adsorption systems. *Journal of Process Control* **2011**, *21* (1), 151-163.
164. Kiparissides, A.; Koutinas, M.; Kontoravdi, C.; Mantalaris, A.; Pistikopoulos, E. N. "Closing the loop" in biological systems modeling - From the in silico to the in vitro. *Automatica* **2011**, *47* (6), 1147-1155.
165. Kiparissides, A.; Koutinas, M.; Moss, T.; Newman, J.; Pistikopoulos, E. N.; Mantalaris, A. Modelling the Delta1/Notch1 Pathway: In Search of the Mediator(s) of Neural Stem Cell Differentiation. *PLoS ONE* **2011**, *6* (2), e14668.
166. Kouramas, K. I.; Faísca, N. P.; Panos, C.; Pistikopoulos, E. N. Explicit/multi-parametric model predictive control (MPC) of linear discrete-time systems by dynamic and multi-parametric programming. *Automatica* **2011**, *47* (8), 1638-1645.
167. Koutinas, M.; Kiparissides, A.; Lam, M.-C.; Silva-Rocha, R.; Godinho, M.; Lorenzo, V. de; Martins Dos Santos, V. A. P.; Pistikopoulos, E. N.; Mantalaris, A. Improving the prediction of Pseudomonas putida mt-2 growth kinetics with the use of a gene expression regulation model of the TOL plasmid. *Biochemical Engineering Journal* **2011**, *55* (2), 108-118.
168. Koutinas, M.; Kiparissides, A.; Silva-Rocha, R.; Lam, M.-C.; Martins Dos Santos, V. A. P.; Lorenzo, V. de; Pistikopoulos, E. N.; Mantalaris, A. Linking genes to microbial growth kinetics-An integrated biochemical systems engineering approach. *Metabolic Engineering* **2011**, *13* (4), 401-413.
169. Li, Z.; Liu, P.; He, F.; Wang, M.; Pistikopoulos, E. N. Simulation and exergoeconomic analysis of a dual-gas sourced polygeneration process with integrated methanol/DME/DMC catalytic synthesis. *Computers and Chemical Engineering* **2011**, *35* (9), 1857-1862.
170. Liu, P.; Whitaker, A.; Pistikopoulos, E. N.; Li, Z. A mixed-integer programming approach to strategic planning of chemical centres: A case study in the UK. *Computers and Chemical Engineering* **2011**, *35* (8), 1359-1373.
171. Liu, P.; Georgiadis, M. C.; Pistikopoulos, E. N. Advances in energy systems engineering. *Industrial and Engineering Chemistry Research* **2011**, *50* (9), 4915-4926.
172. Mansoornejad, B.; Pistikopoulos, F. N.; Stuart, A. Incorporating flexibility design into supply chain design for forest biorefinery. *J-FOR* **2011**, *1* (2), 54-66.
173. Ropponen, A.; Ritala, R.; Pistikopoulos, E. N. Optimization issues of the broke management system in papermaking. *Computers and Chemical Engineering* **2011**, *35* (11), 2510-2520.
174. Domínguez, L. F.; Pistikopoulos, E. N. Multiparametric programming based algorithms for pure integer and mixed-integer bilevel programming problems. *Computers and Chemical Engineering* **2010**, *34* (12), 2097-2106.

175. Dua, P.; Dua, V.; Pistikopoulos, E. N. Modelling and multi-parametric control for delivery of anaesthetic agents. *Medical and Biological Engineering and Computing* **2010**, *48* (6), 543-553.
176. Kontoravdi, C.; Pistikopoulos, E. N.; Mantalaris, A. Systematic development of predictive mathematical models for animal cell cultures. *Computers and Chemical Engineering* **2010**, *34* (8), 1192-1198.
177. Koutinas, M.; Lam, M.-C.; Kiparissides, A.; Silva-Rocha, R.; Godinho, M.; Livingston, A. G.; Pistikopoulos, E. N.; Lorenzo, V. de; Martins Dos Santos, V. A. P.; Mantalaris, A. The regulatory logic of m-xylene biodegradation by Pseudomonas putida mt-2 exposed by dynamic modelling of the principal node Ps/Pr of the TOL plasmid. *Environmental Microbiology* **2010**, *12* (6), 1705-1718.
178. Li, Z.; Gao, D.; Chang, L.; Liu, P.; Pistikopoulos, E. N. Coal-derived methanol for hydrogen vehicles in China: Energy, environment, and economic analysis for distributed reforming. *Chemical Engineering Research and Design* **2010**, *88* (1), 73-80.
179. Liu, P.; Pistikopoulos, E. N.; Li, Z. An energy systems engineering approach to the optimal design of energy systems in commercial buildings. *Energy Policy* **2010**, *38* (8), 4224-4231.
180. Liu, P.; Pistikopoulos, E. N.; Li, Z. A multi-objective optimization approach to polygeneration energy systems design. *AIChE Journal* **2010**, *56* (5), 1218-1234.
181. Liu, P.; Pistikopoulos, E. N.; Li, Z. Energy systems engineering: methodologies and applications. *Frontiers of Energy and Power Engineering in China* **2010**, *4* (2), 131-142.
182. Liu, P.; Pistikopoulos, E. N.; Li, Z. Decomposition Based Stochastic Programming Approach for Polygeneration Energy Systems Design under Uncertainty. *Industrial & Engineering Chemistry Research* **2010**, *49* (7), 3295-3305.
183. Panos, C.; Kouramas, K. I.; Georgiadis, M. C.; Pistikopoulos, E. N. Dynamic optimization and robust explicit model predictive control of hydrogen storage tank. *Computers and Chemical Engineering* **2010**, *34* (9), 1341-1347.
184. Pistikopoulos, E. N.; Liu, P.; Georgiadis, M. C. Modelling and optimization issues of the energy systems of the future. *Chemical Engineering Transactions* **2010**, *21*, 1-6.
185. Chatzidoukas, C.; Pistikopoulos, E. N.; Kiparissides, C. A hierarchical optimization approach to optimal production scheduling in an industrial continuous olefin polymediation reactor. *Macromolecular Reaction Engineering* **2009**, *3* (1), 36-46.
186. Dua, P.; Doyle III, F. J.; Pistikopoulos, E. N. Multi-objective blood glucose control for type 1 diabetes. *Medical and Biological Engineering and Computing* **2009**, *47* (3), 343-352.
187. Faísca, N. P.; Kosmidis, V. D.; Rustem, B.; Pistikopoulos, E. N. Global optimization of multi-parametric MILP problems. *Journal of Global Optimization* **2009**, *45* (1), 131-151.
188. Faísca, N. P.; Saraiva, P. M.; Rustem, B.; Pistikopoulos, E. N. A multi-parametric programming approach for multilevel hierarchical and decentralised optimisation problems. *Computational Management Science* **2009**, *6* (4), 377-397.
189. Georgiadis, M. C.; Kikkinides, E. S.; Makridis, S. S.; Kouramas, K.; Pistikopoulos, E. N. Design and optimization of advanced materials and processes for efficient hydrogen storage. *Computers and Chemical Engineering* **2009**, *33* (5), 1077-1090.
190. Kiparissides, A.; Kucherenko, S. S.; Mantalaris, A.; Pistikopoulos, E. N. Global sensitivity analysis challenges in biological systems modeling. *Industrial and Engineering Chemistry Research* **2009**, *48* (15), 7168-7180.
191. Liu, P.; Pistikopoulos, E. N.; Li, Z. A mixed-integer optimization approach for polygeneration energy systems design. *Computers and Chemical Engineering* **2009**, *33* (3), 759-768.
192. Liu, P.; Pistikopoulos, E. N.; Li, Z. An energy systems engineering approach to polygeneration and hydrogen infrastructure systems analysis & design. *Chemical Engineering Transactions* **2009**, *18*, 373-378.

193. Parpas, P.; Rustem, B.; Pistikopoulos, E. N. Global optimization of robust chance constrained problems. *Journal of Global Optimization* **2009**, *43* (2-3), 231-247.
194. Pistikopoulos, E. N. Perspectives in multiparametric programming and explicit model predictive control. *AIChE Journal* **2009**, *55* (8), 1918-1925.
195. Pistikopoulos, E. N.; Rustem, B. Global optimization and its applications. *Journal of Global Optimization* **2009**, *45* (1), 1-2.
196. Pistikopoulos, E. N. Explicit MPC: Achieving Model Predictive Control on a Chip. *Chemical Engineering Progress* **2009**, *105* (8), 16-16.
197. Tsoukalas, A.; Rustem, B.; Pistikopoulos, E. N. A global optimization algorithm for generalized semi-infinite, continuous minimax with coupled constraints and bi-level problems. *Journal of Global Optimization* **2009**, *44* (2), 235-250.
198. Dua, P.; Kouramas, K. I.; Dua, V.; Pistikopoulos, E. N. MPC on a chip - Recent advances on the application of multi-parametric model-based control. *Computers & Chemical Engineering* **2008**, *32* (4-5), 754-765.
199. Dua, P.; Dua, V.; Pistikopoulos, E. N. Optimal delivery of chemotherapeutic agents in cancer. *Computers and Chemical Engineering* **2008**, *32* (1-2), 99-107.
200. Faísca, N. P.; Kouramas, K. I.; Saraiva, P. M.; Rustem, B.; Pistikopoulos, E. N. A multi-parametric programming approach for constrained dynamic programming problems. *Optimization Letters* **2008**, *2* (2), 267-280.
201. Folić, M.; Adjiman, C. S.; Pistikopoulos, E. N. Computer-aided solvent design for reactions: Maximizing product formation. *Industrial and Engineering Chemistry Research* **2008**, *47* (15), 5190-5202.
202. Li, Z.; Gao, D.; Chang, L.; Liu, P.; Pistikopoulos, E. N. Hydrogen infrastructure design and optimization: A case study of China. *International Journal of Hydrogen Energy* **2008**, *33* (20), 5275-5286.
203. Miri, T.; Tsoukalas, A.; Bakalis, S.; Pistikopoulos, E. N.; Rustem, B.; Fryer, P. J. Global optimization of process conditions in batch thermal sterilization of food. *Journal of Food Engineering* **2008**, *87* (4), 485-494.
204. Faísca, N. P.; Dua, V.; Rustem, B.; Saraiva, P. M.; Pistikopoulos, E. N. Parametric global optimisation for bilevel programming. *Journal of Global Optimization* **2007**, *38* (4), 609-623.
205. Folić, M.; Adjiman, C. S.; Pistikopoulos, E. N. Design of solvents for optimal reaction rate constants. *AIChE Journal* **2007**, *53* (5), 1240-1256.
206. Kontoravdi, C.; Wong, D.; Lam, C.; Yih, Y. L.; Yap, M. G. S.; Pistikopoulos, E. N.; Mantalaris, A. Modeling amino acid metabolism in mammalian cells - Toward the development of a model library. *Biotechnology Progress* **2007**, *23* (6), 1261-1269.
207. Kontoravdi, C.; Asprey, S. P.; Pistikopoulos, E. N.; Mantalaris, A. Development of a dynamic model of monoclonal antibody production and glycosylation for product quality monitoring. *Computers and Chemical Engineering* **2007**, *31* (5-6), 392-400.
208. Liu, P.; Gerogiorgis, D. I.; Pistikopoulos, E. N. Modeling and optimization of polygeneration energy systems. *Catalysis Today* **2007**, *127* (1-4), 347-359.
209. Ryu, J.-H.; Pistikopoulos, E. N. Multiperiod planning of enterprise-wide supply chains using an operation policy. *Industrial and Engineering Chemistry Research* **2007**, *46* (24), 8058-8065.
210. Ryu, J.-H.; Dua, V.; Pistikopoulos, E. N. Proactive scheduling under uncertainty: A parametric optimization approach. *Industrial and Engineering Chemistry Research* **2007**, *46* (24), 8044-8049.
211. Ryu, J.-H.; Pistikopoulos, E. N. A novel approach to scheduling of zero-wait batch processes under processing time variations. *Computers & Chemical Engineering* **2007**, *31* (3), 101-106.

212. Algusane, T. Y.; Proios, P.; Georgiadis, M. C.; Pistikopoulos, E. N. A framework for the synthesis of reactive absorption columns. *Chemical Engineering and Processing: Process Intensification* **2006**, *45* (4), 276-290.
213. Dua, P.; Doyle III, F. J.; Pistikopoulos, E. N. Model-based blood glucose control for type 1 diabetes via parametric programming. *IEEE Transactions on Biomedical Engineering* **2006**, *53* (8), 1478-1491.
214. Parpas, P.; Rustem, B.; Pistikopoulos, E. N. Linearly constrained global optimization and stochastic differential equations. *Journal of Global Optimization* **2006**, *36* (2), 191-217.
215. Proios, P.; Pistikopoulos, E. N. Hybrid generalized modular/collocation framework for distillation column synthesis. *AIChE Journal* **2006**, *52* (3), 1038-1056.
216. Dua, P.; Pistikopoulos, E. N. Modelling and control of drug delivery systems. *Computers & Chemical Engineering* **2005**, *29* (11-12), 2290-2296.
217. Hugo, A.; Pistikopoulos, E. N. Environmentally conscious long-range planning and design of supply chain networks. *Journal of Cleaner Production* **2005**, *13* (15), 1428-1448.
218. Hugo, A.; Rutter, P.; Pistikopoulos, E. N.; Amorelli, A.; Zoia, G. Hydrogen infrastructure strategic planning using multi-objective optimization. *International Journal of Hydrogen Energy* **2005**, *30* (15), 1523-1534.
219. Kontoravdi, C.; Asprey, S. P.; Pistikopoulos, E. N.; Mantalaris, A. Application of global sensitivity analysis to determine goals for design of experiments: An example study on antibody-producing cell cultures. *Biotechnology Progress* **2005**, *21* (4), 1128-1135.
220. Kosmidis, V. D.; Perkins, J. D.; Pistikopoulos, E. N. A mixed integer optimization formulation for the well scheduling problem on petroleum fields. *Computers and Chemical Engineering* **2005**, *29* (7), 1523-1541.
221. Panjwani, P.; Schenk, M.; Georgiadis, M. C.; Pistikopoulos, E. N. Optimal design and control of a reactive distillation system. *Engineering Optimization* **2005**, *37* (7), 733-753.
222. Proios, P.; Goula, N. F.; Pistikopoulos, E. N. Generalized modular framework for the synthesis of heat integrated distillation column sequences. *Chemical Engineering Science* **2005**, *60* (17), 4678-4701.
223. Proios, P.; Pistikopoulos, E. N. Generalized modular framework for the representation and synthesis of complex distillation column sequences. *Industrial and Engineering Chemistry Research* **2005**, *44* (13), 4656-4675.
224. Ryu, J.-H.; Pistikopoulos, E. N. Design and operation of an enterprise-wide process network using operation policies. 1. Design. *Industrial and Engineering Chemistry Research* **2005**, *44* (7), 2174-2182.
225. Dua, V.; Papalexandri, K. P.; Pistikopoulos, E. N. Global optimization issues in multiparametric continuous and mixed-integer optimization problems. *Journal of Global Optimization* **2004**, *30* (1), 59-89.
226. Hugo, A.; Ciumei, C.; Buxton, A.; Pistikopoulos, E. N. Environmental impact minimization through material substitution: A multi-objective optimization approach. *Green Chemistry* **2004**, *6* (8), 407-417.
227. Kosmidis, V. D.; Perkins, J. D.; Pistikopoulos, E. N. Optimization of well oil rate allocations in petroleum fields. *Industrial and Engineering Chemistry Research* **2004**, *43* (14), 3513-3527.
228. Ryu, J.-H.; Dua, V.; Pistikopoulos, E. N. A bilevel programming framework for enterprise-wide process networks under uncertainty. *Computers and Chemical Engineering* **2004**, *28* (6-7), 1121-1129.
229. Sakizlis, V.; Dua, V.; Perkins, J. D.; Pistikopoulos, E. N. Robust model-based tracking control using parametric programming. *Computers and Chemical Engineering* **2004**, *28* (1-2), 195-207.

230. Sakizlis, V.; Perkins, J. D.; Pistikopoulos, E. N. Recent advances in optimization-based simultaneous process and control design. *Computers & Chemical Engineering* **2004**, 28 (10), 2069-2086.
231. Bansal, V.; Sakizlis, V.; Ross, R.; Perkins, J. D.; Pistikopoulos, E. N. New algorithms for mixed-integer dynamic optimization. *Computers and Chemical Engineering* **2003**, 27 (5), 647-668.
232. Chatzidoukas, C.; Perkins, J. D.; Pistikopoulos, E. N.; Kiparissides, C. Optimal grade transition and selection of closed-loop controllers in a gas-phase olefin polymerization fluidized bed reactor. *Chemical Engineering Science* **2003**, 58 (16), 3643-3658.
233. Gao, W.; Yang, Y.; Pistikopoulos, E. N. Retrofit and control of heat exchanger networks. *Huagong Xuebao/Journal of Chemical Industry and Engineering (China)* **2003**, 54 (7), 965-971.
234. Giovanoglou, A.; Barlatier, J.; Adjiman, C. S.; Pistikopoulos, E. N.; Cordiner, J. L. Optimal Solvent Design for Batch Separation Based on Economic Performance. *AIChE Journal* **2003**, 49 (12), 3095-3109.
235. Sakizlis, V.; Perkins, J. D.; Pistikopoulos, E. N. Parametric controllers in simultaneous process and control design optimization. *Industrial and Engineering Chemistry Research* **2003**, 42 (20), 4545-4563.
236. Bansal, V.; Perkins, J. D.; Pistikopoulos, E. N. Flexibility analysis and design using a parametric programming framework. *AIChE Journal* **2002**, 48 (12), 2851-2868.
237. Bansal, V.; Perkins, J. D.; Pistikopoulos, E. N. A case study in simultaneous design and control using rigorous, mixed-integer dynamic optimization models. *Industrial and Engineering Chemistry Research* **2002**, 41 (4), 760-778.
238. Bemporad, A.; Morari, M.; Dua, V.; Pistikopoulos, E. N. The explicit linear quadratic regulator for constrained systems. *Automatica* **2002**, 38 (1), 3-20.
239. Dua, V.; Bozinis, N. A.; Pistikopoulos, E. N. A multiparametric programming approach for mixed-integer quadratic engineering problems. *Computers and Chemical Engineering* **2002**, 26 (4-5), 715-733.
240. Gani, R.; Pistikopoulos, E. N. Property modelling and simulation for product and process design. *Fluid Phase Equilibria* **2002**, 194-197, 43-59.
241. Georgiadis, M. C.; Schenk, M.; Pistikopoulos, E. N.; Gani, R. The interactions of design, control and operability in reactive distillation systems. *Computers and Chemical Engineering* **2002**, 26 (4-5), 735-746.
242. Hené, T. S.; Dua, V.; Pistikopoulos, E. N. A hybrid parametric/stochastic programming approach for mixed-integer nonlinear problems under uncertainty. *Industrial and Engineering Chemistry Research* **2002**, 41 (1), 67-77.
243. Pistikopoulos, E. N.; Sakizlis, V. Simultaneous design and control optimization under uncertainty in reaction/separation systems. *AIChE Symposium Series* **2002**, 98, 223-238.
244. Pistikopoulos, E. N.; Dua, V.; Bozinis, N. A.; Bemporad, A.; Morari, M. On-line optimization via off-line parametric optimization tools. *Computers and Chemical Engineering* **2002**, 26 (2), 175-185.
245. Bernardo, F. P.; Pistikopoulos, E. N.; Saraiva, P. M. Quality costs and robustness criteria in chemical process design optimization. *Computers and Chemical Engineering* **2001**, 25 (1), 27-40.
246. Ismail, S. R.; Proios, P.; Pistikopoulos, E. N. Modular Synthesis Framework for Combined Separation/Reaction Systems. *AIChE Journal* **2001**, 47 (3), 629-648.
247. Pistikopoulos, E. N.; Vassiliadis, C. G.; Arvela, J.; Papageorgiou, L. G. Interactions of maintenance and production planning for multipurpose process plants - A system effectiveness approach. *Industrial and Engineering Chemistry Research* **2001**, 40 (14), 3195-3207.

248. Ross, R.; Perkins, J. D.; Pistikopoulos, E. N.; Koot, G. L. M.; van-Schijndel, J. M. G. Optimal design and control of a high-purity industrial distillation system. *Computers and Chemical Engineering* **2001**, *25* (1), 141-150.
249. Vassiliadis, C. G.; Pistikopoulos, E. N. Maintenance scheduling and process optimization under uncertainty. *Computers and Chemical Engineering* **2001**, *25* (2-3), 217-236.
250. Ahmed, S.; Sahinidis, N. V.; Pistikopoulos, E. N. An improved decomposition algorithm for optimization under uncertainty. *Computers and Chemical Engineering* **2000**, *23* (11-12), 1589-1604.
251. Bansal, V.; Ross, R.; Perkins, J. D.; Pistikopoulos, E. N. Interactions of design and control: Double-effect distillation. *Journal of Process Control* **2000**, *10* (2), 219-227.
252. Bansal, V.; Perkins, J. D.; Pistikopoulos, E. N. Flexibility analysis and design of linear systems by parametric programming. *AIChE Journal* **2000**, *46* (2), 335-354.
253. Bansal, V.; Perkins, J. D.; Pistikopoulos, E. N. Using mathematical programming to compute singular multivariate normal probabilities. *Journal of Statistical Computation and Simulation* **2000**, *67*, 219-253.
254. Bansal, V.; Perkins, J. D.; Pistikopoulos, E. N.; Ross, R.; van Schijndel, J. M. G. Simultaneous design and control optimisation under uncertainty. *Computers & Chemical Engineering* **2000**, *24* (2-7), 261-266.
255. Bernardo, F. P.; Saraiva, P.; Pistikopoulos, E. N. Inclusion of information costs in process design optimization under uncertainty. *Computers and Chemical Engineering* **2000**, *24* (2-7), 1695-1701.
256. Dua, V.; Pistikopoulos, E. N. An Algorithm for the Solution of Multiparametric Mixed Integer Linear Programming Problems. *Annals of Operations Research* **2000**, *99* (1-4), 123-139.
257. Pistikopoulos, E. N.; Dua, V.; Bozinis, N. A.; Bemporad, A.; Morari, M. On-line optimization via off-line parametric optimization tools. *Computers and Chemical Engineering* **2000**, *24* (2-7), 183-188.
258. Pistikopoulos, E. N.; Vassiliadis, C. G.; Papageorgiou, L. G. Process design for maintainability: An optimization approach. *Computers and Chemical Engineering* **2000**, *24* (2-7), 203-208.
259. Vassiliadis, C. G.; Pistikopoulos, E. N. Maintenance-based strategies for environmental risk minimization in the process industries. *Journal of Hazardous Materials* **2000**, *71* (1-3), 481-501.
260. Acevedo, J.; Pistikopoulos, E. N. Algorithm for multiparametric mixed-integer linear programming problems. *Operations Research Letters* **1999**, *24* (3), 139-148.
261. Bernardo, F. P.; Pistikopoulos, E. N.; Saraiva, P. M. Robustness criteria in process design optimization under uncertainty. *Computers and Chemical Engineering* **1999**, *23* (SUPPL. 1), S459-S462.
262. Bernardo, F. P.; Pistikopoulos, E. N.; Saraiva, P. M. Integration and computational issues in stochastic design and planning optimization problems. *Industrial and Engineering Chemistry Research* **1999**, *38* (8), 3056-3068.
263. Buxton, A.; Livingston, A. G.; Pistikopoulos, E. N. Optimal design of solvent blends for environmental impact minimization. *AIChE Journal* **1999**, *45* (4), 817-843.
264. Dua, V.; Pistikopoulos, E. N. Algorithms for the solution of multiparametric mixed-integer nonlinear optimization problems. *Industrial and Engineering Chemistry Research* **1999**, *38* (10), 3976-3987.
265. Dua, V.; Papalexandri, K. P.; Pistikopoulos, E. N. A parametric mixed-integer global optimization framework for the solution of process engineering problems under uncertainty. *Computers and Chemical Engineering* **1999**, *23* (SUPPL. 1), S19-S22.

266. Georgiadis, M. C.; Pistikopoulos, E. N. An integrated framework for robust and flexible process systems. *Industrial and Engineering Chemistry Research* **1999**, *38* (1), 133-143.
267. Ismail, S. R.; Pistikopoulos, E. N.; Papalexandri, K. P. Modular representation synthesis framework for homogeneous azeotropic separation. *AIChE Journal* **1999**, *45* (8), 1701-1720.
268. Ismail, S. R.; Pistikopoulos, E. N.; Papalexandri, K. P. Synthesis of reactive and combined reactor/separation systems utilizing a mass/heat exchange transfer module. *Chemical Engineering Science* **1999**, *54* (13-14), 2721-2729.
269. Ross, R.; Bansal, V.; Perkins, J. D.; Pistikopoulos, E. N.; Koot, G. L. M.; van-Schijndel, J. M. G. Optimal Design and Control of an Industrial Distillation System. *Computers and Chemical Engineering* **1999**, *23* (SUPPL. 1), S875-S878.
270. Schenk, M.; Gani, R.; Bogle, D.; Pistikopoulos, E. N. A hybrid modelling approach for separation systems involving distillation. *Chemical Engineering Research and Design* **1999**, *77* (6), 519-534.
271. Schenk, M.; Gani, R.; Bogle, I. D. L.; Pistikopoulos, E. N. A hybrid approach for reactive separation systems. *Computers and Chemical Engineering* **1999**, *23* (SUPPL. 1), S419-S422.
272. Vassiliadis, C. G.; Pistikopoulos, E. N. Process design and maintenance optimization under uncertainty. *Computers and Chemical Engineering* **1999**, *23* (SUPPL. 1), S555-S558.
273. Acevedo, J.; Pistikopoulos, E. N. Stochastic optimization based algorithms for process synthesis under uncertainty. *Computers and Chemical Engineering* **1998**, *22* (4-5), 647-671.
274. Bansal, V.; Perkins, J. D.; Pistikopoulos, E. N. Flexibility analysis and design of dynamic processes with stochastic parameters. *Computers and Chemical Engineering* **1998**, *22* (SUPPL.1), S817-S820.
275. Dua, V.; Pistikopoulos, E. N. Optimization techniques for process synthesis and material design under uncertainty. *Chemical Engineering Research and Design* **1998**, *76* (3), 408-416.
276. Dua, V.; Pistikopoulos, E. N. An outer-approximation algorithm for the solution of multiparametric MINLP problems. *Computers and Chemical Engineering* **1998**, *22* (SUPPL.1), S955-S958.
277. Papalexandri, K. P.; Pistikopoulos, E. N. A decomposition-based approach for process optimization and simultaneous heat integration: Application to an industrial process. *Chemical Engineering Research and Design* **1998**, *76* (3), 273-286.
278. Papalexandri, K. P.; Patsiatzis, D. I.; Pistikopoulos, E. N.; Ebbesen, L. Heat integration aspects in a crude preheat refinery section. *Computers and Chemical Engineering* **1998**, *22* (SUPPL.1), S141-S148.
279. Papalexandri, K. P.; Pistikopoulos, E. N.; Kalitventzeff, B. Modelling and optimization aspects in energy management and plant operation with variable energy demands-application to industrial problems. *Computers & Chemical Engineering* **1998**, *22* (9), 1319-1333.
280. Pistikopoulos, E. N.; Stefanis, S. K. Optimal solvent design for environmental impact minimization. *Computers and Chemical Engineering* **1998**, *22* (6), 717-733.
281. Romero-Hernandez, O.; Pistikopoulos, E. N.; Livingston, A. G. Waste treatment and optimal degree of pollution abatement. *Environmental Progress* **1998**, *17* (4), 270-277.
282. Vassiliadis, C. G.; Pistikopoulos, E. N. Reliability and maintenance considerations in process design under uncertainty. *Computers and Chemical Engineering* **1998**, *22* (SUPPL.1), S521-S528.

283. Acevedo, J.; Pistikopoulos, E. N. A hybrid parametric/stochastic programming approach for mixed-integer linear problems under uncertainty. *Industrial and Engineering Chemistry Research* **1997**, *36* (6), 2262-2270.
284. Acevedo, J.; Pistikopoulos, E. N. A Multiparametric Programming Approach for Linear Process Engineering Problems under Uncertainty. *Industrial and Engineering Chemistry Research* **1997**, *36* (3), 717-728.
285. Buxton, A.; Livingston, A. G.; Pistikopoulos, E. N. Reaction path synthesis for environmental impact minimization. *Computers and Chemical Engineering* **1997**, *21* (SUPPL.1), S959-S964.
286. Epperly, T. G. W.; Ierapetritou, M. G.; Pistikopoulos, E. N. On the global and efficient solution of stochastic batch plant design problems. *Computers and Chemical Engineering* **1997**, *21* (12), 1411-1431.
287. Epperly, T. G. W.; Pistikopoulos, E. N. A Reduced Space Branch and Bound Algorithm for Global optimization. *Journal of Global Optimization* **1997**, *11* (3), 287-311.
288. Freitas Dos Santos, L. M.; Pavasant, P.; Strachan, L. F.; Pistikopoulos, E. N.; Livingston, A. G. Membrane attached biofilms for waste treatment - Fundamentals and applications. *Pure and Applied Chemistry* **1997**, *69* (11), 2459-2469.
289. Mohideen, M. J.; Perkins, J. D.; Pistikopoulos, E. N. Towards an efficient numerical procedure for mixed integer optimal control. *Computers and Chemical Engineering* **1997**, *21* (SUPPL.1), S457-S462.
290. Mohideen, M. J.; Perkins, J. D.; Pistikopoulos, E. N. Robust stability considerations in optimal design of dynamic systems under uncertainty. *Journal of Process Control* **1997**, *7* (5), 371-385.
291. Pavasant, P.; Pistikopoulos, E. N.; Livingston, A. G. Prediction of axial concentration profiles in an extractive membrane bioreactor and experimental verification. *Journal of Membrane Science* **1997**, *130* (1-2), 85-98.
292. Ismail, S. R.; Pistikopoulos, E. N.; Papalexandri, K. P. Separation of nonideal mixtures based on mass/heat exchange principles. The entrainer selection and sequencing problem. *Computers and Chemical Engineering* **1997**, *21* (SUPPL.1), S211-S216.
293. Stefanis, S. K.; Livingston, A. G.; Pistikopoulos, E. N. Environmental impact considerations in the optimal design and scheduling of batch processes. *Computers and Chemical Engineering* **1997**, *21* (10), 1073-1094.
294. Stefanis, S. K.; Pistikopoulos, E. N. Methodology for Environmental Risk Assessment of Industrial Nonroutine Releases. *Industrial and Engineering Chemistry Research* **1997**, *36* (9), 3694-3707.
295. Acevedo, J.; Pistikopoulos, E. N. Computational studies of stochastic optimization algorithms for process synthesis under uncertainty. *Computers and Chemical Engineering* **1996**, *20* (SUPPL.1), S1-S6
296. Acevedo, J.; Pistikopoulos, E. N. A Parametric MINLP Algorithm for Process Synthesis Problems under Uncertainty. *Industrial and Engineering Chemistry Research* **1996**, *35* (1), 147-158.
297. Bozinis, N. A.; Alexiou, I. E.; Pistikopoulos, E. N. A mathematical model for the optimal design and operation of an anaerobic co-digestion plant. *Water Science and Technology* **1996**, *34* (5-6), 383-391.
298. Freitas Dos Santos, L. M.; Pavasant, P.; Pistikopoulos, E. N.; Livingston, A. G. Growth of immobilised cells: Results and predictions for membrane-attached biofilms using a novel in situ biofilm thickness measurement technique. *Progress in Biotechnology* **1996**, *11* (C), 290-297.
299. Ierapetritou, M. G.; Pistikopoulos, E. N.; Floudas, C. A. Operational planning under uncertainty. *Computers and Chemical Engineering* **1996**, *20* (12), 1499-1516.

300. Ierapetritou, M. G.; Acevedo, J.; Pistikopoulos, E. N. An optimization approach for process engineering problems under uncertainty. *Computers and Chemical Engineering* **1996**, *20* (6-7), 703-709.
301. Ierapetritou, M. G.; Pistikopoulos, E. N. Batch Plant Design and Operations under Uncertainty. *Industrial & Engineering Chemistry Research* **1996**, *35* (3), 772-787.
302. Livingston, A. G.; Freitas Dos Santos, L. M.; Pavasant, P.; Pistikopoulos, E. N.; Strachan, L. F. Detoxification of industrial wastewaters in an extractive membrane bioreactor. *Water Science and Technology* **1996**, *33* (3), 1-8.
303. Mohideen, M. J.; Perkins, J. D.; Pistikopoulos, E. N. Optimal synthesis and design of dynamic systems under uncertainty. *Computers and Chemical Engineering* **1996**, *20* (SUPPL.2), S895-S900.
304. Papalexandri, K. P.; Pistikopoulos, E. N.; Kalitventzeff, B.; Dumont, M. N.; Urmann, K.; Gorschluter, J. Operation of a steam production network with variable demands modelling and optimization under uncertainty. *Computers and Chemical Engineering* **1996**, *20* (SUPPL.1), S763-S768.
305. Papalexandri, K. P.; Pistikopoulos, E. N. Generalized Modular Representation Framework for Process Synthesis. *AIChE Journal* **1996**, *42* (4), 1010-1029.
306. Pavasant, P.; Freitas Dos Santos, L. M.; Pistikopoulos, E. N.; Livingston, A. G. Prediction of optimal biofilm thickness for membrane-attached biofilms growing in an extractive membrane bioreactor. *Biotechnology and Bioengineering* **1996**, *52* (3), 373-386.
307. Pistikopoulos, E. N.; Thomaidis, T. V.; Melin, A.; Ierapetritou, M. G. Flexibility, reliability and maintenance considerations in batch plant design under uncertainty. *Computers and Chemical Engineering* **1996**, *20* (SUPPL.2), S1209-S1214.
308. Stefanis, S. K.; Buxton, A.; Livingston, A. G.; Pistikopoulos, E. N. A methodology for environmental impact minimization: Solvent design and reaction path synthesis issues. *Computers and Chemical Engineering* **1996**, *20* (SUPPL.2), S1419-S1424.
309. Dimitriadis, V. D.; Pistikopoulos, E. N. Flexibility analysis of dynamic systems. *Industrial and Engineering Chemistry Research* **1995**, *34* (12), 4451-4462.
310. Ierapetritou, M. G.; Pistikopoulos, E. N. Design of multiproduct batch plants with uncertain demands. *Computers and Chemical Engineering* **1995**, *19* (SUPPL. 1), 627-632.
311. Papalexandri, K. P.; Pistikopoulos, E. N. A process synthesis modelling framework based on mass/heat transfer module hyperstructure. *Computers and Chemical Engineering* **1995**, *19* (SUPPL. 1), 71-76.
312. Pistikopoulos, E. N.; Ierapetritou, M. G. Novel approach for optimal process design under uncertainty. *Computers and Chemical Engineering* **1995**, *19* (10), 1089-1110.
313. Pistikopoulos, E. N. Uncertainty in process design and operations. *Computers and Chemical Engineering* **1995**, *19* (SUPPL. 1), 553-563.
314. Stefanis, S. K.; Livingston, A. G.; Pistikopoulos, E. N. Minimizing the environmental impact of process Plants: A process systems methodology. *Computers and Chemical Engineering* **1995**, *19* (SUPPL. 1), 39-44.
315. Thomaidis, T. V.; Pistikopoulos, E. N. Optimal design of flexible & reliable process systems. *IEEE Transactions on Reliability* **1995**, *44* (2), 243-250.
316. Thomaidis, T. V.; Pistikopoulos, E. N. Towards the incorporation of flexibility, maintenance and safety in process design. *Computers and Chemical Engineering* **1995**, *19* (SUPPL. 1), 687-692.
317. Ierapetritou, M. G.; Pistikopoulos, E. N. Simultaneous incorporation of flexibility and economic risk in operational planning under uncertainty. *Computers & Chemical Engineering* **1994**, *18* (3), 163-189.
318. Ierapetritou, M. G.; Pistikopoulos, E. N. Novel optimization approach of stochastic planning models. *Industrial and Engineering Chemistry Research* **1994**, *33* (8), 1930-1942.

319. Ierapetritou, M. G.; Pistikopoulos, E. N.; Floudas, C. A. Operational planning under uncertainty. *Computers and Chemical Engineering* **1994**, *18* (SUPPL), S553-S557.
320. Papalexandri, K. P.; Pistikopoulos, E. N. A multiperiod MINLP model for the synthesis of flexible heat and mass exchange networks. *Computers & Chemical Engineering* **1994**, *18* (11), 1125-1139.
321. Papalexandri, K. P.; Pistikopoulos, E. N.; Floudas, C. A. Mass-Exchange Networks for Waste Minimization - A Simultaneous Approach. *Chemical Engineering Research & Design* **1994**, *72* (A3), 279-294.
322. Papalexandri, K. P.; Pistikopoulos, E. N. Synthesis and retrofit design of operable heat exchanger networks. 2. Dynamics and control structure considerations. *Industrial and Engineering Chemistry Research* **1994**, *33* (7), 1738-1755.
323. Papalexandri, K. P.; Pistikopoulos, E. N. Synthesis of cost optimal and controllable heat exchanger networks. *Chemical Engineering Research and Design* **1994**, *72* (A3), 350-356.
324. Thomaidis, T. V.; Pistikopoulos, E. N. Integration of flexibility, reliability and maintenance in process synthesis and design. *Computers and Chemical Engineering* **1994**, *18* (SUPPL), S259-S263.
325. Papalexandri, K. P.; Pistikopoulos, E. N. An MINLP retrofit approach for improving the flexibility of heat exchanger networks. *Annals of Operations Research* **1993**, *42* (1), 119-168.
326. Papalexandri, K. P.; Pistikopoulos, E. N. Multiperiod MINLP model for improving the flexibility of heat exchanger networks. *Computers and Chemical Engineering* **1993**, *17* (Suppl), 111-116.
327. Pistikopoulos, E. N.; Mazzuchi, T. A. A novel flexibility analysis approach for processes with stochastic parameters. *Computers and Chemical Engineering* **1990**, *14* (9), 991-1000.
328. Pistikopoulos, E. N.; Grossmann, I. E. Optimal retrofit design for improving process flexibility in nonlinear systems-II. Optimal level of flexibility. *Computers and Chemical Engineering* **1989**, *13* (10), 1087-1096.
329. Pistikopoulos, E. N.; Grossmann, I. E. Optimal retrofit design for improving process flexibility in nonlinear systems-I. Fixed degree of flexibility. *Computers and Chemical Engineering* **1989**, *13* (9), 1003-1016.
330. Pistikopoulos, E. N.; Grossmann, I. E. Stochastic optimization of flexibility in retrofit design of linear systems. *Computers and Chemical Engineering* **1988**, *12* (12), 1215-1227.
331. Pistikopoulos, E. N.; Grossmann, I. E. Optimal retrofit design for improving process flexibility in linear systems. *Computers and Chemical Engineering* **1988**, *12* (7), 719-731.
332. Pistikopoulos, E. N.; Grossmann, I. E. Evaluation and redesign for improving flexibility in linear systems with infeasible nominal conditions. *Computers & Chemical Engineering* **1988**, *12* (8), 841-843.

Granted Patents

- **EP1399784** – Improved Process Control, 2004
- **US7433743** – Process Control Using Co-ordinate Space, 2008
- **WO2020227550-A1** – Refueling Metal Hydride Storage System, 2020
- **2238-07402** – Quantitative Forecasting Frameworks for Energy-Smarter Designed Taxes, 2021

Website: <http://parametric.tamu.edu>