

A. REFEREED JOURNAL ARTICLES (Peer Reviewing)

Published

1. Hyeok Choi, Kai Zhang, Dionysios D. Dionysiou, Daniel B. Oerther and George A. Sorial, Membrane Filtration Performance with Activated Sludge of Continuous Stirred-Tank Reactor and Plug Flow Reactor for the Treatment of Paper Mill Wastewater: Membrane Fouling, *Chemosphere*, in press, available online.
2. Hyeok Choi, Anna Sofranko and Dionysios D. Dionysiou, Nanocrystalline TiO₂ Photocatalytic Membranes with a Hierarchical Mesoporous Multilayers: Synthesis, Characterization, and Multifunction, *Advanced Functional Materials*, in press.
3. Hyeok Choi, Elias Stathatos, and Dionysios D. Dionysiou, Synthesis of Nanocrystalline Photocatalytic TiO₂ Thin Films and Particles Using Sol-Gel Method Modified with Nonionic Surfactants, *Thin Solid Films*, in press, available online.
4. Hyeok Choi, Elias Stathatos, and Dionysios D. Dionysiou, Sol-gel Preparation of Mesoporous Photocatalytic TiO₂ Films and TiO₂/Al₂O₃ Composite Membranes for Environmental Applications, *Applied Catalysis B: Environmental* **63** (1/2) (2006) 60-67.
5. Zhang, K., Choi, H., Dionysiou, D., Sorial, G., and Oerther, D.B., Identifying Pioneer Bacterial Species Responsible for Biofouling Membrane Bioreactors, *Environmental Microbiology* **8** (3) (2006) 433-440.
6. George P. Anipsitakis, Dionysios D. Dionysiou and Michael A. Gonzalez, Cobalt-mediated Activation of Peroxymonosulfate and Sulfate Radical Attack on Phenolic Compounds. Implications of Chloride Ions, *Environmental Science and Technology* **40** (3) (2006) 1000-1007.
7. Yongjun Chen and Dionysios D. Dionysiou, TiO₂ Photocatalytic Films on Stainless Steel: The Role of Degussa P-25 in Modified Sol-Gel Methods, *Applied Catalysis B: Environmental* **62** (3/4) (2006) 255-264.
8. Yongjun Chen and Dionysios D. Dionysiou, Effect of Calcination Temperature on the Photocatalytic Activity and Adhesion of TiO₂ Films Prepared by the P-25 Powder-Modified Sol Gel Method, *Journal of Molecular Catalysis A: Chemical* **244** (1/2) (2006) 73-82.
9. Yueqiang Liu, Hyeok Choi, Dionysios D. Dionysiou, and Gregory V. Lowry, Trichloroethylene Hydrodechlorination in Water by Highly Disordered Monometallic Nanoiron, *Chemistry of Materials* **17** (2005) 5315-5322.
10. George P. Anipsitakis, Elias Stathatos and Dionysios D. Dionysiou, Heterogeneous Activation of Oxone using Co₃O₄, *Journal of Physical Chemistry B*: **109**, issue 27 (2005) 13052-13055.

11. Kyesang Yoo, Hyeok Choi, and Dionysios D. Dionysiou, Synthesis of Anatase Nanostructured TiO₂ Particles at Low Temperature Using Ionic Liquid for Photocatalysis, *Catalysis Communications* **6** (4) (2005) 259-262.
12. Hyeok Choi, Kai Zhang, Dionysios D. Dionysiou, Daniel B. Oerther, and George A. Sorial, Influence of Permeate Flux and Tangential Shear on Membrane Fouling for Wastewater Treatment, *Separation and Purification Technology* **45** (2005) 68-78.
13. Hyeok Choi, Kai Zhang, Dionysios D. Dionysiou, Daniel B. Oerther, and George A. Sorial, Influence of Cross-flow Velocity on Membrane Performance During Filtration of Biological Suspension, *Journal of Membrane Science* **248** (1-2) (2005) 189-199.
14. Hyeok Choi, Hyung-Soo Kim, Ick-Tae Yeom and Dionysios D. Dionysiou, Pilot Plant Study of an Ultrafiltration Membrane System for Drinking Water Treatment Operated in the Feed-and-Bleed Mode, *Desalination* **172** (3) (2005) 281-291.
15. Arturo A. Burbano, Dionysios D. Dionysiou, Makram T. Suidan, and Teri L. Richardson, Oxidation Kinetics and Effect of pH on the Degradation of MTBE with Fenton Reagent, *Water Research* **39** (1) (2005) 107-118.
16. Qiaolin Yang and Dionysios D. Dionysiou, Room Temperature Ionic Liquids as Solvent Media for the Photolytic Degradation of Environmentally Important Organic Contaminants, *ACS Symposium Series* **902** (Ionic Liquids IIIB: Fundamentals, Progress, Challenges, and Opportunities) (2005) Chapter 15, 182-198.
17. George P. Anipsitakis and Dionysios D. Dionysiou, Transition Metal/UV-based Advanced Oxidation Technologies for Water Decontamination, *Applied Catalysis B: Environmental*, **54** (3) (2004) 155-163.
18. George P. Anipsitakis and Dionysios D. Dionysiou, Radical Generation by the Interaction of Transition Metals with Common Oxidants, *Environmental Science and Technology* **38** (2004) 3705-3712.
19. Kyesang Yoo, Hyeok Choi, and Dionysios D. Dionysiou, Ionic Liquid Assisted Preparation of Anatase Nanostructured TiO₂ Particles with High Surface Area, *Chemical Communications* **2004** (17), 2000-2001.
20. Qiaolin Yang and Dionysios D. Dionysiou, Photolytic Degradation of Chlorinated Phenols in Room Temperature Ionic Liquids, *J. Photochemistry & Photobiology, A: Chemistry* **165** (1-3) (2004) 229-240.
21. Erick R. Bandala, Dolores Martinez, Evaristo Martinez, and Dionysios D. Dionysiou, Degradation of Microcystin-LR by Fenton and Photo-Fenton Processes, *TOXICON* **43** (7) (2004) 829-832.

22. Qianrui Wang, Daekeun Kim, Dionysios D. Dionysiou, George A. Sorial and Dennis Timberlake, Mercury in Aquatic Systems: Sources of Pollution and Remedial Strategies, *Environmental Pollution* **131** (2), (2004), 323-336.
23. Daekeun Kim, Qianrui Wang, George A. Sorial, Dionysios D. Dionysiou and Dennis Timberlake, A Model Approach for Evaluating Effects of Remedial Actions on Mercury Speciation and Transport in Aquatic Systems, *The Science of the Total Environment* **327** (1-3) (2004) 1-15.
24. Dionysios D. Dionysiou, Makram T. Suidan, Isabelle Baudin and Jean-Michel L  n  , Effect of Hydrogen Peroxide on the Destruction of Organic Contaminants-Synergism and Inhibition in a Continuous-mode Photocatalytic Reactor, *Applied Catalysis B: Environmental* **50** (4) (2004) 259-269.
25. Ganesh Balasubramanian, Dionysios D. Dionysiou, Makram T. Suidan, Isabelle Baudin and Jean-Michel L  n  , Evaluating the Activities of Immobilized TiO₂ Powder Films for the Photocatalytic Degradation of Organic Contaminants in Water, *Applied Catalysis B: Environmental* **47** (2) (2004) 73-84.
26. George P. Anipsitakis and Dionysios D. Dionysiou, Degradation of Chlorinated Aromatics with Sulfate Radicals Generated by the Conjunction of Peroxymonosulfate with Cobalt, *Environmental Science and Technology* **37** (2003) 4790-4797.
27. Evangelia Bekou, Dionysios D. Dionysiou, Ru-Ying Qian and Gregory D. Botsaris, Extraction of Chlorophenols from Water Using Room Temperature Ionic Liquids, *ACS Symposium Series* **856** (Ionic Liquids as Green Solvents-Progress and Prospects) (2003) 544-560.
28. Arturo A. Burbano, Dionysios D. Dionysiou, Teri L. Richardson and Makram T. Suidan, Chemical Destruction of MTBE Using Fenton's Reagent: Effect of Ferrous Iron/Hydrogen Peroxide Ratio. *Water Science and Technology* **47** (9) (2003) 165-171.
29. Ganesh Balasubramanian, Dionysios D. Dionysiou, Makram T. Suidan, Vijay Subramanian, Isabelle Baudin and Jean-Michel L  n  , Titania Powder Modified Sol-Gel Process for Photocatalytic Applications, *Journal of Materials Science* **38** (4) (2003) 823-831.
30. Arturo A. Burbano, Dionysios D. Dionysiou, Teri L. Richardson, and Makram T. Suidan, Remediation of MTBE-Contaminated Water: Studies on the Degradation of MTBE Intermediates Using the Fenton's Reagent, *Journal of Environmental Engineering (ASCE)* **128** (9) (2002) 799-805.
31. Dionysios D. Dionysiou, Arturo A. Burbano, Makram T. Suidan, Isabelle Baudin and Jean-Michel L  n  , Effect of Oxygen in a Thin-Film Rotating Disk Photocatalytic Reactor, *Environmental Science and Technology* **36** (2002) 3834-3843.

32. Dionysios D. Dionysiou, Makram T. Suidan, Isabelle Baudin and Jean-Michel Laîné, Oxidation of Organic Contaminants in a Rotating Disk Photocatalytic Reactor: Reaction Kinetics in the Liquid Phase and the Role of Mass Transfer Based on the Dimensionless Damköhler Number, *Applied Catalysis B: Environmental* **38/1** (2002) 1-16.
33. Dionysios D. Dionysiou, Makram T. Suidan, Isabelle Baudin, Jean-Michel Laîné, and Tiehong L. Huang, TiO₂-Assisted Photocatalytic Degradation of 4-Chlorobenzoic Acid in Water: Effect of Type of Catalyst, Catalyst Loading, Initial Contaminant Concentration, and Buffer System, *Wat. Sci. Tech: Water Supply* **1** (4) (2001) 139-147.
34. Dionysios D. Dionysiou, Ganesh Balasubramanian, Makram T. Suidan, Amid P. Khodadoust, Isabelle Baudin and Jean-Michel Laîné, Rotating Disk Photocatalytic Reactor: Development, Characterization, and Evaluation for the Destruction of Organic Contaminants in Water, *Water Research* **34** (2000) 2927-2940.
35. Dionysios Dionysiou, Marina Tsianou, and Gregory Botsaris, Extractive Crystallization for the Production of Calcium Acetate and Magnesium Acetate from Carbonate Sources, *Ind. & Eng. Chem. Res.* **39** (2000) 4192-4202.
36. Dionysios Dionysiou, Marina Tsianou, and Gregory Botsaris, Investigation of the Conditions for the Production of Calcium Magnesium Acetate (CMA) Road Deicer in an Extractive Crystallization Process, *Crystal Research and Technology* **35** (2000) 1035-1049.
37. Dionysios D. Dionysiou, Makram T. Suidan, Evangelia Bekou, Isabelle Baudin, Jean-Michel Laîné, Effect of Ionic Strength and Hydrogen Peroxide on the Photocatalytic Degradation of 4-Chlorobenzoic acid in water, *Applied Catalysis B: Environmental* **26** (2000) 153-171.
38. Dionysios D. Dionysiou, Amid P. Khodadoust, Ann M. Kern, Makram T. Suidan, Isabelle Baudin and Jean-Michel Laîné, Continuous-Mode Photocatalytic Degradation of Chlorinated Phenols and Pesticides in Water using a Bench-Scale TiO₂ Rotating Disk Reactor, *Applied Catalysis B: Environmental* **24** (2000) 139-155.
39. Amid P. Khodadoust, Makram T. Suidan, George A. Sorial, Dionysios D. Dionysiou, and Richard C. Brenner, Desorption of Pentachlorophenol from Soils Using Mixed Solvents, *Environmental Science and Technology* **33** (1999), 4483-4491.
40. N. Cicek, D. D. Dionysiou, M. T. Suidan, P. Ginestet, and J. M. Audic, Performance Deterioration and Structural Changes of a Ceramic Membrane Bioreactor due to Inorganic Abrasion, *Journal of Membrane Science* **163** (1999) 19-28.
41. Dionysios D. Dionysiou, Xiwang Qi, Y. S. Lin, G. Meng, and P. D. Peng, Preparation and Characterization of Proton Conducting Terbium Doped Strontium Cerate Membranes, *Journal of Membrane Science* **154** (1999) 143-153.

Accepted for Publication or in Press

42. Hyeok Choi, Elias Stathatos and Dionysios D. Dionysiou, Effect of Surfactant in a Modified Sol on the Physicochemical Properties and Photocatalytic Activity of Crystalline TiO₂ Nanoparticles, *Topics in Catalysis*, accepted for publication.
43. Amid P. Khodadoust, Srividya Chandrasekaran and Dionysios D. Dionysiou, Extraction of Hydrophobic Organic Contaminants from Soils using Room Temperature Ionic Liquids, *Environmental Science and Technology*, accepted for publication.
44. Hyeok Choi, Elias Stathatos and Dionysios D. Dionysiou, Photocatalytic TiO₂ Films and Membranes for the Development of Efficient Wastewater Treatment and Reuse Systems, *Desalination*, accepted for publication.

Submitted for Publication

45. Yongjun Chen and Dionysios D. Dionysiou, Correlation of Structural Properties and Film Thickness to Photocatalytic Activity of Anatase TiO₂ Thick Films Coated on Stainless Steel, *submitted for publication*.
46. Yongjun Chen and Dionysios D. Dionysiou, A novel Porous TiO₂ P25 Composite Photocatalytic Film Supported on Stainless Steel, *submitted for publication*.
47. Elias Stathatos, Hyeok Choi and Dionysios D. Dionysiou, Simple Procedure of Making Room Temperature Mesoporous TiO₂ Films with High Purity and Enhanced Photocatalytic Activity, *submitted for publication*.
48. Hyeok Choi, Yong-Jin Kim, Rajender S. Varma and Dionysios D. Dionysiou, Synthesis and Photocatalytic Evaluation of Thermally Stable Porous Anatase TiO₂ Photocatalysts Prepared by Sol-gel Method Modified with Water Immiscible Room Temperature Ionic Liquid, 1-butyl-3-methylimidazolium hexafluorophosphate, *submitted for publication*.
49. Rachel Copeland, Darren Lytle, and Dionysios D. Dionysiou, Arsenic Desorption from Drinking Water Distribution System Solids, *Environmental Monitoring and Assessment*, *submitted for publication*.