

## **Refereed Publications**

**(Updated 30.04.2021)**

1. M. Bonifaciç, H. Möckel, D. Bahnemann, K.-D. Asmus  
“Formation of Positive Ions and Other Primary Species in the Oxidation of Sulphides by Hydroxyl Radicals”  
J. Chem. Soc., Perkin Trans 2 (1975) 675-685
2. D. Bahnemann, K.-D. Asmus  
“Formation of a Sulphur-Sulphur Bridged Radical Cation During the Oxidation of 1,4-Dithian by Hydroxyl Radicals”  
J. Chem. Soc., Chem. Commun. (1975) 238-239
3. K.-D. Asmus, D. Bahnemann, M. Bonifaciç, H. A. Gillis  
“Free Radical Oxidation of Organic Sulphur Compounds in Aqueous Solution”  
Faraday Disc. Chem. Soc. 63 (1978) 213-225
4. K. Schäfer, M. Bonifaciç, D. Bahnemann, K.-D. Asmus  
“Addition of Oxygen to Organic Sulfur Radicals”  
J. Phys. Chem. 82 (1978) 2777-2780
5. D. Bahnemann, H. Basaga, J. R. Dunlop, A. J. Searle, R. L. Willson  
“Metronidazole (Flagyl), Misonidazole (Ro 07-0582), Iron, Zinc, and Sulphur Compounds in Cancer Therapy”  
Br. J. Cancer 37, Suppl. III (1978) 16-19
6. K.-D. Asmus, D. Bahnemann, H. Basaga, J. Dunlop, J. S. Mahood, J. E. Packer, A. J. Searle, T. F. Slater, R. L. Willson, B. Wolfenden  
“Free Radical Cascades and the Interaction of Radiosensitizers and Radioprotectors”  
Brit. J. Radiology 52 (1979) 600-601
7. K.-D. Asmus, D. Bahnemann, Ch.-H. Fischer, D. Veltwisch  
“Structure and Stability of Radical Cations from Cylic and Open Chain Dithia Compounds in Aqueous Solutions”  
J. Am. Chem. Soc. 101 (1979) 5322-5329
8. J. E. Packer, R. L. Willson, D. Bahnemann, K.-D. Asmus  
“Electron Transfer Reactions of Halogenated Aliphatic Peroxy Radicals: Measurement of Absolute Rate Constants by Pulse Radiolysis”  
J. Chem. Soc., Perkin Trans 2 (1980) 296-299

***Dr. Detlef Bahnemann: Refereed Publications***

9. D. Bahnemann, K.-D. Asmus, R. L. Willson  
“Free Radical Reactions of the Phenothiazine, Metiazinic Acid”  
J. Chem. Soc., Perkin Trans. 2 (1981) 890-895
10. D. Bahnemann, E. J. Hart  
“Rate Constants of the Reaction of the Hydrated Electron and Hydroxyl Radical with Ozone in Aqueous Solution”  
J. Phys. Chem. 86 (1982) 252-255
11. L. Forni, D. Bahnemann, E. J. Hart  
“Mechanism of the Hydroxide Ion Initiated Decomposition of Ozone in Aqueous Solution”  
J. Phys. Chem. 86 (1982) 255-259
12. D. Bahnemann, K.-D. Asmus, R.L. Willson  
“Free Radical Induced One-electron Oxidation of the Phenothiazines, Chlorpromazine and Promethazine”  
J. Chem. Soc., Perkin Trans. 2 (1983) 1661-1668
13. D. Bahnemann, K.-D. Asmus, R. L. Willson  
“Phenothiazine Radical-Cations: Electron Transfer Equilibria with Iodide Ions and the Determination of One-electron Redox Potentials by Pulse Radiolysis”  
J. Chem. Soc., Perkin Trans. 2 (1983) 1669-1673
14. J. Mönig, D. Bahnemann, K.-D. Asmus  
“One-Electron Reduction of  $\text{CCl}_4$  in Oxygenated Aqueous Solutions: A  $\text{CCl}_3\text{O}_2^\bullet$ -Free Radical Mediated Formation of  $\text{Cl}^-$  and  $\text{CO}_2$ ”  
Chem.-Biol. Interactions 47 (1983) 15-27
15. Z. Alfassi, D. Bahnemann, A. Henglein  
“Photochemistry of Colloidal Metal Sulfides. 3. Photoelectron Emission from CdS-ZnS Co-Colloids”  
J. Phys. Chem. 86 (1982) 4656-4657
16. D. Bahnemann, A. Henglein, J. Lilie, L. Spanhel  
“Flash Photolysis Observation of the Absorption Spectra of Trapped Positive Holes and Electrons in Colloidal  $\text{TiO}_2$ ”  
J. Phys. Chem. 88 (1984) 703-711
17. D. Bahnemann, A. Henglein, L. Spanhel  
“Detection of the Intermediates of Colloidal  $\text{TiO}_2$ -catalyzed Photoreactions”  
Faraday Discuss. Chem. Soc. 78 (1984) 151-163
18. K.-D. Asmus, D. Bahnemann, K. Krischer, M. Lal, J. Mönig  
“One-Electron Induced Degradation of Halogenated Methanes and Ethanes in Oxygenated and Anoxic Aqueous Solutions”  
Life Chemistry Reports 3 (1985) 1-15

***Dr. Detlef Bahnemann: Refereed Publications***

19. D. Meissner, R. Memming, B. Kastening, D. Bahnemann  
“Fundamental Problems of Water Splitting at Cadmium Sulfide”  
Chem. Phys. Lett. 127 (1986) 419-423
20. A. P. Hong, D. W. Bahnemann, M. R. Hoffmann  
“Co(II)Tetrasulfophthalocyanine on Titanium Dioxide: A New Efficient Electron Relay for the Photocatalytic Formation and Depletion of Hydrogen Peroxide in Aqueous Suspensions”  
J. Phys. Chem. 91 (1987) 2109-2117
21. D. W. Bahnemann, J. Mönig, R. Chapman  
“Efficient Photocatalysis of the Irreversible One-electron and Two-electron Reduction of Halothane on Platinized Colloidal Titanium Dioxide in Aqueous Suspension”  
J. Phys. Chem. 91 (1987) 3782-3788
22. D. W. Bahnemann, C. Kormann, M. R. Hoffmann  
“Preparation and Characterization of Quantum Size Zinc Oxide: A Detailed Spectroscopic Study”  
J. Phys. Chem. 91 (1987) 3789-3798
23. D. W. Bahnemann, Ch.-H. Fischer, E. Janata, A. Henglein  
“The Two-Electron Oxidation of Methylviologen: Detection and Analysis of Two Fluorescing Products”  
J. Chem. Soc., Faraday Trans 1, 83 (1987) 2559-2571
24. D. W. Bahnemann, M. R. Hoffmann, A. P. Hong, C. Kormann  
“Photocatalytic Formation of Hydrogen Peroxide”  
ACS Symposium Series 349, “The Chemistry of Acid Rain, Sources and Atmospheric Processes”, P. W. Johnson, G. E. Gordon (Hrg.), Am. Chem. Soc. Washington, DC (1987) 120-132
25. A. P. Hong, D. W. Bahnemann, M. R. Hoffmann  
“Cobalt(II)Tetrasulfophthalocyanine on Titanium Dioxide: II. Kinetics and Mechanisms of the Photocatalytic Oxidation of Aqueous Sulfur Dioxide”  
J. Phys. Chem. 91 (1987) 6245-6251
26. C. Kormann, D. W. Bahnemann, M. R. Hoffmann  
“Peroxide Production on Illuminated Suspensions of TiO<sub>2</sub>, ZnO, and Desert Sand”  
Environ. Sci. Technol. 22 (1988) 798-806
27. C. Kormann, D. W. Bahnemann, M. R. Hoffmann  
“Preparation and Characterization of Quantum-Size Titanium Dioxide (TiO<sub>2</sub>)”  
J. Phys. Chem. 92 (1988) 5196-5201
28. B. C. Faust, M. R. Hoffmann, D. W. Bahnemann  
“Photocatalytic Oxidation of Sulfur Dioxide in Aqueous Suspensions of α-Fe<sub>2</sub>O<sub>3</sub>”  
J. Phys. Chem. 93 (1989) 6371-6381

***Dr. Detlef Bahnemann: Refereed Publications***

29. C. Kormann, D. W. Bahnemann, M. R. Hoffmann  
“Environmental Photochemistry: Is Iron Oxide (Hematite) an Active Photocatalyst? A Comparative Study:  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>, ZnO, TiO<sub>2</sub>”  
J. Photochem. Photobiol., A: Chemistry 48 (1989) 161-169
30. C. Kormann, D. W. Bahnemann, M. R. Hoffmann  
“Photolysis of Chloroform and Other Organic Molecules in Aqueous TiO<sub>2</sub> Suspensions”  
Environ. Sci. Technol. 25 (1991) 494-500
31. D. Bockelmann, R. Goslich, D. Bahnemann  
“Mechanistic Studies of Water Detoxification in Illuminated TiO<sub>2</sub> Suspensions”  
Solar Energy Materials 24 (1991) 564-583
32. D. W. Bahnemann  
“Ultrasmall Metal Oxide Particles: Preparation, Photophysical Characterization and Photocatalytic Properties”  
Isr. J. Chem. 33 (1993) 115-136
33. D. W. Bahnemann, D. Bockelmann, R. Goslich, M. Hilgendorff, D. Weichgrebe  
“Photocatalytic Detoxification: Novel Catalysts, Mechanisms and Solar Applications”  
“Trace Metals in the Environment 3: Photocatalytic Purification and Treatment of Water and Air”, D. F. Ollis, H. Al-Ekabi (Hrg.), Elsevier Science Publishers, Amsterdam (1993) 301-319
34. D. Weichgrebe, A. Vogelpohl, D. Bockelmann, D. Bahnemann  
“Treatment of Landfill Leachates by Photocatalytic Oxidation using TiO<sub>2</sub>: A Comparison with Alternative Photochemical Technologies”  
“Trace Metals in the Environment 3: Photocatalytic Purification and Treatment of Water and Air”, D. F. Ollis, H. Al-Ekabi (Hrg.), Elsevier Science Publishers, Amsterdam (1993) 579-584
35. D. Bockelmann, R. Goslich, D. Weichgrebe, D. Bahnemann  
“Solar Detoxification of Polluted Water: Comparing the Efficiencies of a Parabolic Trough Reactor and a novel Thin-Film-Fixed-Bed Reactor”  
“Trace Metals in the Environment 3: Photocatalytic Purification and Treatment of Water and Air”, D. F. Ollis, H. Al-Ekabi (Hrg.), Elsevier Science Publishers, Amsterdam (1993) 771-776
36. D. W. Bahnemann, D. Bockelmann, R. Goslich, M. Hilgendorff  
“Photocatalytic Detoxification of Polluted Aquifers: Novel Catalysts and Solar Applications”  
“Aquatic and Surface Photochemistry”, G. R. Helz, R. G. Zepp, D. G. Crosby (Hrg.), Lewis Publishers, Boca Raton (1994) 349-367
37. D. W. Bahnemann, J. Cunningham, M. A. Fox, E. Pelizzetti, P. Pichat, N. Serpone  
“Photocatalytic Treatment of Waters”  
“Aquatic and Surface Photochemistry”, G. R. Helz, R. G. Zepp, D. G. Crosby (Hrg.), Lewis Publishers, Boca Raton (1994) 261-316

***Dr. Detlef Bahnemann: Refereed Publications***

38. H. Gulyas, D. Bockelmann, L. Hemmerling, D. Bahnemann, I. Sekoulov  
“Treatment of Recalcitrant Organic Compounds in Oil Reclaiming Wastewater by Ozone/Hydrogen Peroxide and UV/Titanium Dioxide”  
Water Sci. Technol. 29 (1994) 129-132
39. D. Bahnemann  
“Solare Abwasserentgiftung”  
Nachr. Chem. Tech. Lab. 42 (1994) 378-388
40. M. Lindner, D. Bahnemann, B. Hirthe, W.-D. Griebler  
“Neue Katalysatoren zur Photokatalytischen Abwasserreinigung”  
Zeitschrift für Umwelttechnik, WLB “Wasser, Luft und Boden” 11-12 (1994) 38-44
41. M. Hilgendorff, M. Hilgendorff, D. W. Bahnemann  
“Photokatalytische Reduktion Perhalogenierter Kohlenwasserstoffe an Platiniertem Titandioxid in Wäßriger Lösung”  
J. Inf. Rec. Mats. 21 (1994) 697-698
42. D. Bockelmann, D. Weichgrebe, R. Goslich, D. Bahnemann  
“Concentrating vs. Non-concentrating Reactors for Solar Water Detoxification”  
Solar Energy Materials and Solar Cells 38 (1995) 441-451
43. M. R. Hoffmann, S. T. Martin, W. Choi, D. W. Bahnemann  
“Environmental Applications of Semiconductor Photocatalysis”  
Chem. Rev. 95 (1995) 69-96
44. R. Dillert, M. Brandt, I. Fornefett, U. Siebers, D. Bahnemann  
“Photocatalytic Degradation of Trinitrotoluene and other Nitroaromatic Compounds”  
Chemosphere 30 (1995) 2333-2341
45. M. Hilgendorff, M. Hilgendorff, D. W. Bahnemann  
“Mechanisms of Photocatalysis: The Reductive Degradation of Tetrachloromethane in Aqueous Titanium Dioxide Suspensions”  
J. Adv. Oxid. Technol. 1 (1996) 35-43
46. R. Dillert, I. Fornefett, U. Siebers, D. Bahnemann  
“Photocatalytic Degradation of Trinitrotoluene and Trinitrobenzene: Influence of Hydrogen Peroxide”  
J. Photochem. Photobiol., A: Chemistry 94 (1996) 231-236
47. M. Bekbölet, M. Lindner, D. Weichgrebe, D. Bahnemann  
“Photocatalytic Detoxification with the Thin-Film Fixed-Bed Reactor (TFFBR): Clean-up of Highly Polluted Landfill Effluents Using a Novel TiO<sub>2</sub>-Photocatalyst”  
Solar Energy 56 (1996) 455-469

***Dr. Detlef Bahnemann: Refereed Publications***

48. J. Theurich, M. Lindner, D. W. Bahnemann  
“Photocatalytic Degradation of 4-Chlorophenol in Aerated Aqueous Titanium Dioxide Suspensions: A Kinetic and Mechanistic Study”  
Langmuir 12 (1996) 6368-6376
49. M. Lindner, D. Bahnemann, B. Hirthe, W.-D. Griebler  
“Solar Water Detoxification: Novel TiO<sub>2</sub> Powders as Highly Active Photocatalysts”  
Transactions of the ASME, Journal of Solar Energy Engineering 119 (1997) 120-125
50. M. van Well, R. H. G. Dillert, D. W. Bahnemann, V. W. Benz, M. A. Müller  
“A Novel Non-concentrating Reactor for Solar Water Detoxification”  
Transactions of the ASME, Journal of Solar Energy Engineering 119 (1997) 114-119
51. J. Theurich, D. W. Bahnemann, R. Vogel, F. E. Ehamed, G. Alhakimi, I. Rajab  
“Photocatalytic Degradation of Naphthalene and Anthracene: GC/MS Analysis of the Degradation Pathway”  
Res. Chem. Intermed. 23 (1997) 247-274
52. R. Goslich, R. Dillert, D. Bahnemann  
“Solar Water Treatment: Principles and Reactors”  
Wat. Sci. Tech. 35 (1997) 137-148
53. M. Lindner, J. Theurich, D. W. Bahnemann  
“Photocatalytic Degradation of Organic Compounds: Accelerating the Process Efficiency”  
Wat. Sci. Tech. 35 (1997) 79-86
54. H. Freudenhammer, D. Bahnemann, L. Bousselmi, S.-U. Geissen, A. Ghrabi, F. Saleh, A. Si-Salah, U. Siemon, A. Vogelpohl  
“Detoxification and Recycling of Wastewater by Solar-Catalytic Treatment”  
Wat. Sci. Tech. 35 (1997) 149-156
55. D. Bahnemann, M. Hilgendorff, R. Memming  
“Charge Carrier Dynamics at TiO<sub>2</sub> Particles: Reactivity of Free and Trapped Holes”  
J. Phys. Chem. B 101 (1997) 4265-4275
56. M. Nahen, D. Bahnemann, R. Dillert, G. Fels  
“Photocatalytic Degradation of Trinitrotoluene: Reductive and Oxidative Pathways”  
J. Photochem. Photobiol., A: Chemistry 110 (1997) 191-199
57. A. Klapproth, S. Linnemann, D. Bahnemann, R. Dillert, G. Fels  
“<sup>14</sup>C-Trinitrotoluene: Synthesis and Photocatalytic Degradation”  
J. Labelled Cpd. Radiopharm. XLI (1998) 337-343
58. R. Dillert, U. Siemon, D. Bahnemann  
“Photokatalytische Desinfektion eines kommunalen Abwassers”  
Chem.-Ing.-Techn. 70 (1998) 308-310

***Dr. Detlef Bahnemann: Refereed Publications***

59. R. Dillert, U. Siemon, D. Bahnemann  
“Photocatalytic Disinfection of Municipal Wastewater”  
Chem. Eng. Technol. 21 (1998) 256-258
60. J. Dzengel, J. Theurich, D. W. Bahnemann  
“Formation of Nitroaromatic Compounds in Advanced Oxidation Processes: Photolysis versus Photocatalysis”  
Environ. Sci. Technol. 33 (1999) 294-300
61. D. Bahnemann, R. Dillert, J. Dzengel, R. Goslich, G. Sagawe, H.-W. Schumacher, V. Benz  
“Field Studies of Solar Water Detoxification using Non Light Concentrating Reactors”  
J. Adv. Oxid. Technol. 4 (1999) 11-19
62. R. Dillert, U. Siemon, D. Bahnemann  
“Photocatalytic Disinfection of Municipal Wastewater”  
J. Adv. Oxid. Technol. 4 (1999) 55-59
63. R. Dillert, J. Huppertz, A. Renwrantz, U. Siebers, D. Bahnemann  
“Light-Induced Degradation of Nitroaromatic Compounds in Aqueous Systems: Comparison between Titanium Dioxide Photocatalysis and Photo-Fenton Reactions”  
J. Adv. Oxid. Technol. 4 (1999) 85-90
64. M. Muneer, J. Theurich, D. Bahnemann  
“Formation of Toxic Intermediates upon the Photocatalytic Degradation of the Pesticide Diuron”  
Res. Chem. Intermed. 25 (1999) 667-683
65. R. Dillert, S. Vollmer, M. Schober, J. Theurich, D. Bahnemann, H.-J. Arntz, K. Pahlmann, J. Wienefeld, T. Schmedding, G. Sager  
“Photokatalytische Behandlung eines Industrieabwassers im Stegdoppelplattenreaktor”  
Chem.-Ing.-Techn. 71 (1999) 396-399
66. R. Dillert, S. Vollmer, E. Groß, M. Schober, D. Bahnemann, J. Wienefeld, K. Pahlmann, T. Schmedding, H.-J. Arntz, G. Sager  
“Solar-catalytic Treatment of an Industrial Wastewater”  
Z. Phys. Chem. 213 (1999) 141-147
67. R. Dillert, S. Vollmer, M. Schober, J. Theurich, D. Bahnemann, H.-J. Arntz, K. Pahlmann, J. Wienefeld, T. Schmedding, G. Sager  
“Laboruntersuchungen zur photokatalytischen Behandlung eines biologisch behandelten Industrieabwassers”  
gwf Wasser/Abwasser 140 (1999) 293-297
68. R. Dillert, S. Vollmer, M. Schober, J. Theurich, D. Bahnemann, H.-J. Arntz, K. Pahlmann, J. Wienefeld, T. Schmedding, G. Sager  
“Photocatalytic Treatment of an Industrial Wastewater in the Double-Skin Sheet Reactor”  
Chem. Eng. Technol. 22 (1999) 931-934

***Dr. Detlef Bahnemann: Refereed Publications***

69. R. Dillert, A. E. Cassano, R. Goslich, D. Bahnemann  
“Large Scale Studies in Solar Catalytic Wastewater Treatment”  
*Catalysis Today* 54 (1999) 267-282
70. D. W. Bahnemann  
“Current Challenges in Photocatalysis: Improved Photocatalysts and Appropriate Photoreactor Engineering”  
*Res. Chem. Intermed.* 26 (2000) 207-220
71. O. M. Alfano, D. Bahnemann, A. E. Cassano, R. Dillert, R. Goslich  
“Photocatalysis in Water Environments using Artificial and Solar Light”  
*Catalysis Today* 58 (2000) 199-230
72. Q. W. Chen, D. W. Bahnemann  
“Reduction of Carbon Dioxide by Magnetite: Implications for the Primordial Synthesis of Organic Molecules”  
*J. Am. Chem. Soc.* 122 (2000) 970-971
73. I. Arslan, I. A. Balcioglu, D. W. Bahnemann  
“Heterogeneous Photocatalytic Treatment of Simulated Dyehouse Effluent using TiO<sub>2</sub>-Photocatalysts”  
*Appl. Catalysis B: Environ.* 26 (2000) 193-206
74. C. Wang, D. W. Bahnemann, J. K. Dohrmann  
“A Novel Preparation of Iron-Doped TiO<sub>2</sub> Nanoparticles with enhanced Photocatalytic Activity”  
*Chem. Commun.* (2000) 1539-1540
75. I. Arslan, I. A. Balcioglu, T. Tuhkanen, D. Bahnemann  
“Advanced Oxidation of Simulated Reactive Dyehouse Wastewater: H<sub>2</sub>O<sub>2</sub>/UV-C and Fenton/UV-C versus TiO<sub>2</sub>/UV-A Treatment Process”  
*J. Environ. Eng.* 126 (2000) 903-911
76. I. Arslan, I. A. Balcioglu, D. W. Bahnemann  
“Advanced Chemical Oxidation of Reactive Dyes in simulated Dyehouse Effluents by Ferrioxalate-Fenton/UV-A and TiO<sub>2</sub>/UV-A Process”  
*Dyes and Pigments* 47 (2000) 207-218
77. I. Arslan, I. A. Balcioglu, D. W. Bahnemann  
“Photochemical Treatment of Simulated Dyehouse Effluents by Novel TiO<sub>2</sub> Photocatalysts: Experience with the Thin Film Fixed Bed (TFFB) and Double Skin Sheet (DSS) Reactor”  
*Wat. Sci. Tech.* 44 (2001) 171-178
78. C. Wang, D. W. Bahnemann, J. K. Dohrmann  
“Determination of Photonic Efficiency and Quantum Yield of Formaldehyde Formation in the Presence of various TiO<sub>2</sub> Photocatalysts”  
*Wat. Sci. Tech.* 44 (2001) 279-286

79. M. Muneer, D. Bahnemann  
“Semiconductor-mediated Photocatalysed Degradation of two Selected Pesticide Derivatives, Terbacil and 2,4,5-Tribromoimidazole, in Aqueous Suspension”  
Wat. Sci. Tech. 44 (2001) 331-337
80. M. Muneer, J. Theurich, D. Bahnemann  
“Titanium Dioxide Mediated Photocatalytic Degradation of 1,2-Diethyl Phthalate”  
J. Photochem. Photobiol., A: Chemistry 143 (2001) 213-219
81. G. Sagawe, A. Lehnard, M. Lübbert, D. Bahnemann  
“The Insulated Solar Fenton Hybrid Process: Fundamental Investigations”  
Helvetica Chimica Acta 84 (2001) 3742-3759
82. D. W. Bahnemann, S. N. Kholuiskaya, R. Dillert, A. I. Kulak, A. I. Kokorin  
“Photodestruction of Dichloroacetic Acid Catalyzed by Nano-sized TiO<sub>2</sub> Particles”  
Appl. Catalysis B: Environ. 36 (2002) 161-169
83. I. A. Alaton, I. A. Balcioglu, D. W. Bahnemann  
“Advanced Oxidation of a Reactive Dyebath Effluent: Comparison of O<sub>3</sub>, H<sub>2</sub>O<sub>2</sub>/UV-C and TiO<sub>2</sub>/UV-A Processes”  
Water Research 36 (2002) 1143-1154
84. M. Muneer, D. Bahnemann  
“Semiconductor-mediated Photocatalysed Degradation of two Selected Pesticide Derivatives, Terbacil and 2,4,5-Tribromoimidazole, in Aqueous Solutions”  
Appl. Catalysis B: Environ. 36 (2002) 95-111
85. M. Muneer, H. K. Singh, D. Bahnemann  
“Semiconductor-mediated Photocatalysed Degradation of two Selected Priority Organic Pollutants, Benzidine and 1,2-Diphenylhydrazine, in Aqueous Suspension”  
Chemosphere 49 (2002) 193-203
86. D. Hufschmidt, D. Bahnemann, J. J. Testa, C. A. Emilio, M. I. Litter  
“Enhancement of the Photocatalytic Activity of various TiO<sub>2</sub> Materials by Platinisation”  
J. Photochem. Photobiol., A: Chemistry 148 (2002) 225-233
87. S. Sakthivel, S.-U. Geissen, D. W. Bahnemann, V. Murugesan, A. Vogelpohl  
“Enhancement of Photocatalytic Activity by Semiconductor Heterojunctions:  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>, WO<sub>3</sub> and CdS deposited on ZnO”  
J. Photochem. Photobiol., A: Chemistry 148 (2002) 285-295
88. U. Siemon, D. Bahnemann, J. J. Testa, D. Rodríguez, M. I. Litter, N. Bruno  
“Heterogeneous Photocatalytic Reactions Comparing TiO<sub>2</sub> and Pt/TiO<sub>2</sub>”  
J. Photochem. Photobiol., A: Chemistry 148 (2002) 249-257

***Dr. Detlef Bahnemann: Refereed Publications***

89. C. Wang, J. Rabani, D. W. Bahnemann, J. K. Dohrmann  
“Photonic Efficiency and Quantum Yield of Formaldehyde Formation from Methanol in the Presence of Various TiO<sub>2</sub> Photocatalysts”  
J. Photochem. Photobiol., A: Chemistry 148 (2002) 171-178
90. R. Gao, J. Stark, D. W. Bahnemann, J. Rabani  
“Quantum Yields of Hydroxyl Radicals in Illuminated TiO<sub>2</sub> Nanocrystallite Layers”  
J. Photochem. Photobiol., A: Chemistry 148 (2002) 387-391
91. M. P. Vinod, D. Bahnemann  
“Materials for All Solid-State Thin-Film Rechargeable Lithium Batteries by Sol-Gel Processing”  
Journal of Solid-State Electrochemistry 6 (2002) 498-501
92. H. K. Singh, M. Muneer, D. Bahnemann  
“Photocatalysed Degradation of a Herbicide Derivative, Bromacil in Aqueous Suspensions of Titanium Dioxide”  
Photoch. Photobio. Sci. 2 (2002) 151-156
93. M. A. Rahman, M. Muneer, D. Bahnemann  
“Photocatalysed Degradation of a Herbicide Derivative, Diphenamid in Aqueous Suspensions of Titanium Dioxide”  
J. Adv. Oxid. Technol. 6 (2003): 100-108
94. G. Sagawe, R. J. Brandi, D. Bahnemann, A. E. Cassano  
“Photocatalytic Reactors for Treating Water Pollution with Solar Illumination. I: A Simplified Analysis for Batch Reactors”  
Chem. Eng. Sci. 58 (2003) 2587-2599
95. G. Sagawe, R. J. Brandi, D. Bahnemann, A. E. Cassano  
“Photocatalytic Reactors for Treating Water Pollution with Solar Illumination. II: A Simplified Analysis for Flow Reactors”  
Chem. Eng. Sci. 58 (2003) 2601-2615
96. M. A. Rahman , M. Muneer, D. Bahnemann  
“Photocatalytic Degradation of Dimethyl Terephthalate in Aqueous Suspensions of Titanium Dioxide”  
Res. Chem. Intermediat. 29 (2003) 35-50
97. C. Wang, C. Böttcher, D. W. Bahnemann, J. K. Dohrmann  
“A Comparative Study of Nanometer sized Fe(III)-doped TiO<sub>2</sub> Photocatalysts: Synthesis, Characterization and Activity”  
J. Mater. Chem. 13 (2003) 2322-2329
98. M. P. Vinod, D. Bahnemann, P. R. Rajamohanan, K. Vijayamohanan  
“A Novel Luminescent Functionalized Siloxane Polymer”  
J. Phys. Chem. B 107 (2003) 11583-11588

***Dr. Detlef Bahnemann: Refereed Publications***

99. C. Wang, C. Böttcher, D. W. Bahnemann, J. K. Dohrmann  
“In situ Electron Microscopy Investigation of Fe(III)-doped TiO<sub>2</sub> Nanoparticles in an Aqueous Environment”  
J. Nanoparticle Research 6 (2004) 119-122
100. C. A. Emilio, J. J. Testa, D. Hufschmidt, G. Colon, J. A. Navio, D. W. Bahnemann, M. I. Litter  
“Features and Efficiency of some Platinized TiO<sub>2</sub> Photocatalysts”  
J. Ind. Eng. Chem. 10 (2004) 129-138
101. D. Hufschmidt, L. Liu, V. Selzer, D. Bahnemann  
“Photocatalytic Water Treatment: Fundamental Knowledge required for its Practical Application”  
Wat. Sci. Tech. 49 (2004) 135-140
102. H. K. Singh, M. Muneer, D. W. Bahnemann  
“Photocatalysed Degradation of a Herbicide Derivative, Maleic Hydrazide in Aqueous Suspensions of TiO<sub>2</sub>”  
J. Adv. Oxid. Technol. 7 (2004) 184-190
103. S. Sakthivel, M. V. Shankar, M. Palanichamy, B. Arabindoo, D. W. Bahnemann, V. Murugesan  
“Enhancement of Photocatalytic Activity by Metal Deposition: Characterisation and Photonic Efficiency of Pt, Au and Pd deposited on TiO<sub>2</sub> Catalyst”  
Water Research 38 (2004) 3001-3008
104. C. Wang, R. Pagel, D. W. Bahnemann, J. K. Dohrmann  
“Quantum Yield of Formaldehyde Formation in the Presence of Colloidal TiO<sub>2</sub>-Based Photocatalysts: Effect of Intermittent Illumination, Platinization, and Deoxygenation”  
J. Phys. Chem. B 108 (2004) 14082-14092
105. D. Bahnemann  
“Photocatalytic Water Treatment: Solar Energy Applications”  
Solar Energy 77 (2004) 445-459
106. G. Sagawe, R. J. Brandi, D. Bahnemann, A. Cassano  
“Photocatalytic Reactors for Treating Water Pollution with Solar Illumination. III: A simplified Analysis for Recirculating Reactors”  
Solar Energy 77 (2004) 471-489
107. M. C. Hidalgo, S. Sakthivel, D. Bahnemann  
“Highly Photoactive and Stable TiO<sub>2</sub> Coatings on Sintered Glass”  
Appl. Catal. A: Gener. 277 (2004) 183-189
108. M. Muneer, M. Saquib, M. Qamar, D. Bahnemann  
“Titanium-dioxide-mediated Photocatalysis Reaction of three selected Pesticide Derivatives”  
Res. Chem. Intermediat. 30 (2004) 663-672

***Dr. Detlef Bahnemann: Refereed Publications***

109. C. B. Mendive, D. W. Bahnemann, M. A. Blesa  
“Microscopic Characterization of the Photocatalytic Oxidation of Oxalic Acid adsorbed onto TiO<sub>2</sub> by FTIR-ATR”  
Catalysis Today 101 (2005) 237-244
110. F. Dehn, D. Bahnemann, B. Bilger  
“Development of Photocatalytically Active Coatings for Concrete Substrates”  
RILEM Proceedings PRO 41 (2005) 347-352
111. M. Muneer, M. Qamar, D. Bahnemann  
“Photoinduced Electron Transfer Reaction of few selected Organic Systems in Presence of Titanium Dioxide”  
J. Molec. Catal. A: Chem. 234 (2005) 151-157
112. D. Bahnemann, M. Muneer, M. Qamar, M. A. Rahman, H. K. Singh  
“Semiconductor-mediated Photocatalysed Degradation of various Pesticide Derivatives and Other Priority Organic Pollutants in Aqueous Suspensions”  
Mat. Sci. For. 486-487 (2005) 61-64
113. M. Muneer, D. Bahnemann, M. Qamar, M. A. Tariq, M. Faisal  
“Photocatalysed Reaction of few selected Organic Systems in Presence of Titanium Dioxide”  
Appl. Catal. A: Gener. 289 (2005) 224-230
114. P. Z. Araujo, C. B. Mendive, L. A. Garcia Rodenas, P. J. Morando, A. E. Regazzoni, M. A. Blesa, D. Bahnemann  
“FT-IR-ATR as a Tool to probe Photocatalytic Interfaces”  
Colloids and Surfaces A: Physicochem. Eng. Aspects 265 (2005) 73-80
115. G. Sagawe, R. J. Brandi, D. Bahnemann, A. E. Cassano  
“Photocatalytic Reactors for Treating Water Pollution with Solar Illumination: A simplified Analysis for n-steps Flow Reactors with Recirculation”  
Solar Energy 79 (2005) 262-269
116. M. Wark, J. Tschirch, O. Bartels, D. Bahnemann, J. Rathousky  
“Photocatalytic Activity of Hydrophobized Mesoporous Thin Films of TiO<sub>2</sub>”  
Micropor. Mesopor. Mat. 84 (2005) 247-253
117. I. Liu, L. A. Lawton, D. W. Bahnemann, P. K. J. Robertson  
“The Photocatalytic Destruction of the Cyanotoxin, Nodularin using TiO<sub>2</sub>”  
Appl. Catal. B: Environ. 60 (2005) 245-252
118. M. Muneer, M. Qamar, M. Saquib, D. W. Bahnemann  
“Heterogeneous Photocatalysed Reaction of three Selected Pesticide Derivatives, Propham, Propachlor and Tebuthiuron in Aqueous Suspensions of Titanium Dioxide”  
Chemosphere 61 (2005) 457-468

119. M. C. Hidalgo, D. Bahnemann  
“Highly Photoactive Supported TiO<sub>2</sub> prepared by Thermal Hydrolysis of TiOSO<sub>4</sub>: Optimisation of the Method and Comparison with other Synthetic Routes”  
Appl. Catal. B: Environ. 61 (2005) 259-266
120. M. Qamar, M. Muneer, D. Bahnemann  
“Titanium-dioxide-mediated Photocatalysed Reaction of Selected Organic Systems”  
Res. Chem. Intermed. 31 (2005) 807-817
121. P. K. J. Robertson, D. W. Bahnemann, J. M. C. Robertson, F. Wood  
“Photocatalytic Detoxification of Water and Air”  
Hdb. Env. Chem. Vol. 2, Part M (2005) 367-423
122. S. J. Hug, D. Bahnemann  
“Infrared Spectra of Oxalate, Malonate and Succinate adsorbed on the Aqueous Surface of Rutile, Anatase and Lepidocrocite measured with *in situ* ATR-FTIR”  
J. Electr. Spectr. Rel. Phenom. 150 (2006) 208-219
123. S. Sakthivel, M. C. Hidalgo, D. W. Bahnemann, S.-U. Geissen, V. Murugesan, A. Vogelpohl  
“A Fine Route to Tune the Photocatalytic Activity of TiO<sub>2</sub>”  
Appl. Catal. B: Environ. 63 (2006) 31-40
124. J. Marugan, D. Hufschmidt, M.-J. Lopez-Munoz, V. Selzer, D. Bahnemann  
“Photonic Efficiency for Methanol Photooxidation and Hydroxyl Radical Generation on Silica-supported TiO<sub>2</sub> Photocatalysts”  
Appl. Catal. B: Environ. 62 (2006) 201-207
125. J. Marugan, D. Hufschmidt, G. Sagawe, V. Selzer, D. Bahnemann  
“Optical Density and Photonic Efficiency of Silica-supported TiO<sub>2</sub> Photocatalysts”  
Water Research 40 (2006) 833-839
126. M. A. Rahman, M. Qamar, M. Muneer, D. Bahnemann  
“Semiconductor Mediated Photocatalysed Degradation of a Pesticide Derivative, Acephate in Aqueous Suspensions of Titanium Dioxide”  
J. Adv. Oxid. Technol. 9 (2006) 103-109
127. C. Wang, R. Pagel, J. K. Dohrmann, D. W. Bahnemann  
“Antenna Mechanism and Deaggregation Concept: Novel Mechanistic Principles for Photocatalysis”  
C. R. Chimie 9 (2006) 761-773
128. M. Qamar, M. Muneer, D. Bahnemann  
“Heterogeneous Photocatalysed Degradation of two Selected Pesticide Derivatives, Triclopyr and Daminozid in Aqueous Suspensions of Titanium Dioxide”  
J. Env. Management 80 (2006) 99-106

***Dr. Detlef Bahnemann: Refereed Publications***

129. C. B. Mendive, T. Bredow, M. A. Blesa, D. W. Bahnemann  
“ATR-FTIR Measurements and Quantum Chemical Calculations concerning the Adsorption and Photoreaction of Oxalic Acid on TiO<sub>2</sub>”  
Phys. Chem. Chem. Phys. 8 (2006) 3232-3247
130. M. M. Haque, M. Muneer, D. W. Bahnemann  
“Semiconductor-Mediated Photocatalyzed Degradation of a Herbicide Derivative, Chlorotoluron, in Aqueous Suspensions”  
Env. Sci. Technol. 40 (2006) 4765-4770
131. H. K. Singh, M. Saquib, M. M. Haque, M. Muneer, D. W. Bahnemann  
“Titanium Dioxide mediated Photocatalysed Degradation of Phenoxyacetic Acid and 2,4,5-Trichlororphenoxyacetic Acid in Aqueous Suspensions”  
J. Molec. Catal. A: Chem. 264 (2007) 66-72
132. I. G. Bryden, P. K. J. Robertson, D. W. Bahnemann  
“Anthropogenic Climate Change: Issues and Discussions”  
J. Energy & Climate Change 1 (2006) 61-73
133. B. C. Choi, L. H. Xu, H. T. Kim, D. W. Bahnemann  
“Photocatalytic Characteristics on Sintered Glass and Microreactor”  
J. Ind. Eng. Chem. 12 (2006) 663-672
134. C. McCullagh, J. M. C. Robertson, D. W. Bahnemann, P. K. J. Robertson  
“The Application of TiO<sub>2</sub> Photocatalysis for Disinfection of Water Contaminated with Pathogenic Micro-Organisms: A Review”  
Res. Chem. Intermed. 33 (2007) 359-375
135. M. A. Tariq, M. Faisal, M. Muneer, D. Bahnemann  
“Photochemical Reactions of a few Selected Pesticide Derivatives and other Priority Organic Pollutants in Aqueous Suspensions of Titanium Dioxide”  
J. Molec. Catal. A: Chem. 265 (2007) 231-236
136. D. Friedmann, H. Hansing, D. Bahnemann  
“Primary Processes during the Photodeposition of Ag Clusters on TiO<sub>2</sub> Nanoparticles”  
Z. Phys. Chem. 221 (2007) 329-348
137. R. Dillert, D. Bahnemann, H. Hidaka  
“Light-induced Degradation of Perfluorocarboxylic Acids in the Presence of Titanium Dioxide”  
Chemosphere 67 (2007) 785-792
138. C. Wang, R. Pagel, J. K. Dohrmann, D. W. Bahnemann  
“Antenna Mechanism and De-Aggregation Concept: Novel Mechanistic Principles for Photocatalysis”  
Materials Science Forum 544-545 (2007) 17-22

139. A. Feldhoff, C. Mendive, T. Bredow, D. Bahnemann  
“Direct Measurement of Size, Three-Dimensional Shape, and Specific Surface Area of Anatase Nanocrystals”  
ChemPhysChem 8 (2007) 805-809
140. D. W. Bahnemann, M. Muneer, M. M. Haque  
“Titanium Dioxide-mediated Photocatalysed Degradation of few Selected Organic Pollutants in Aqueous Suspensions”  
Catalysis Today 124 (2007) 133-148
141. C. B. Mendive, M. A. Blesa, D. Bahnemann  
“The Adsorption and Photodegradation of Oxalic Acid at the TiO<sub>2</sub> Surface”  
Wat. Sci. Tech. 55 (2007) 139-145
142. S. Horikoshi, M. Kajitani, N. Horikoshi, R. Dillert, D. W. Bahnemann  
“Use of Microwave Discharge Electrodeless Lamps (MDEL). II. Photodegradation of Acetaldehyde over TiO<sub>2</sub> Pellets”  
J. Photochem. Photobiol., A: Chemistry 193 (2008) 284-287
143. J. Tschirch, D. Bahnemann, M. Wark, J. Rathousky  
“A Comparative Study into the Photocatalytic Properties of Thin Mesoporous Layers of TiO<sub>2</sub> with Controlled Mesoporosity”  
J. Photochem. Photobiol., A: Chemistry 194 (2008) 181-188
144. J. Tschirch, R. Dillert, D. Bahnemann, B. Proft, A. Biedermann, B. Goer  
“Photodegradation of Methylene Blue in Water, a Standard Method to Determine the Activity of Photocatalytic Coatings?”  
Res. Chem. Intermed. 34 (2008) 381-392
145. C. B. Mendive, T. Bredow, A. Feldhoff, M. Blesa, D. Bahnemann  
“Adsorption of Oxalate on Rutile Particles in Aqueous Solutions: a Spectroscopic, Electron-Microscopic and Theoretical Study”  
Phys. Chem. Chem. Phys. 10 (2008) 1960-1974
146. Y. Li, R. Dillert, D. Bahnemann  
“Preparation of Porous CdIn<sub>2</sub>S<sub>4</sub> Photocatalyst Films by Hydrothermal Crystal Growth at Solid/Liquid/Gas Interfaces”  
Thin Solid Films 516 (2008) 4988-4992
147. M. Vormoor, R. Dillert, D. Bahnemann  
“Nanotechnologie zum Anfassen: Lichtinduzierte Superhydrophilie”  
Nanoworld 01 (2008) 30-31
148. J. Tschirch, R. Dillert, D. Bahnemann  
“Photocatalytic Degradation of Methylene Blue on Fixed Powder Layers: Which Limitations are to be Considered?”  
J. Adv. Oxid. Technol. 11 (2008) 193-198

***Dr. Detlef Bahnemann: Refereed Publications***

149. V. M. Menendez-Flores, D. Friedmann, D. W. Bahnemann  
“Durability of Ag-TiO<sub>2</sub> Photocatalysts Assessed for the Degradation of Dichloroacetic Acid”  
Int. J. Photoenergy (2008) Article Number 280513
150. C. Baumanis, D. W. Bahnemann  
“TiO<sub>2</sub> Thin Film Electrodes: Correlation between Photocatalytic Activity and Electrochemical Properties”  
J. Phys. Chem. C 112 (2008) 19097-19101
151. V. Kalousek, J. Tschirch, D. Bahnemann, J. Rathousky  
“Mesoporous Layers of TiO<sub>2</sub> as Highly Efficient Photocatalysts for the Purification of Air”  
Superlattices and Microstructures 44 (2008) 506-513
152. A. Ismail, D. Bahnemann  
“Synthesis of TiO<sub>2</sub>/Au Nanocomposites via Sol-Gel Process for Photooxidation of Methanol”  
J. Adv. Oxid. Technol. 12 (2009) 9-15
153. M. N. Abellán, R. Dillert, J. Giménez, D. Bahnemann  
“Evaluation of two Types of TiO<sub>2</sub>-based Catalysts by Photodegradation of DMSO in Aqueous Suspension”  
J. Photochem. Photobiol., A: Chemistry 202 (2009) 164-171
154. C. B. Mendive, T. Bredow, A. Feldhoff, M. A. Blesa, D. Bahnemann  
“Adsorption of Oxalate on Anatase (100) and Rutile (110) Particles in Aqueous Systems: Experimental Results vs. Theoretical Predictions”  
Phys. Chem. Chem. Phys. 11 (2009) 1794-1808
155. S. Wagner, S. Münzer, P. Behrens, T. Scheper, D. Bahnemann, C. Kasper  
“Cytotoxicity of Titanium and Silicon Dioxide Nanoparticles”  
J. Phys.: Conf. Ser. 170 (2009) 1-8
156. A. A. Ismail, D. W. Bahnemann, I. Bannat, M. Wark  
“Gold Nanoparticles on Mesoporous Interparticle Networks of Titanium Dioxide Nanocrystals for Enhanced Photonic Efficiencies”  
J. Phys. Chem. C 113 (2009) 7429-7435
157. I. Bannat, K. Wessels, T. Oekermann, J. Rathousky, D. Bahnemann, M. Wark  
“Improving the Photocatalytic Performance of Mesoporous Titania Films by Modification with Gold Nanostructures”  
Chem. Mater. 21 (2009) 1645-1653
158. T. A. Kandiel, R. Dillert, D. W. Bahnemann  
“Enhanced Photocatalytic Production of Molecular Hydrogen on TiO<sub>2</sub> modified with Pt-Polypyrrole Nanocomposites”  
Photochem. Photobiol. Sci. 8 (2009) 683-690

***Dr. Detlef Bahnemann: Refereed Publications***

159. J. Bennani, R. Dillert, T. M. Gesing, D. Bahnemann  
“Physical Properties, Stability, and Photocatalytic Activity of Transparent TiO<sub>2</sub> /SiO<sub>2</sub> Films”  
Sep. Purif. Technol. 67 (2009) 173-179
160. A. Hakki, R. Dillert, D. Bahnemann  
“Photocatalytic Conversion of Nitroaromatic Compounds in the Presence of TiO<sub>2</sub>”  
Catalysis Today 144 (2009) 154-159
161. I. Liu, L. A. Lawton, D. W. Bahnemann, L. Liu, B. Proft, P. K. J. Robertson  
“The Photocatalytic Decomposition of Microcystin-LR using selected Titanium Dioxide Materials”  
Chemosphere 76 (2009) 549-553
162. H. Zhang, G. Chen, D. W. Bahnemann  
“Photoelectrocatalytic Materials for Environmental Applications”  
J. Mater. Chem. 19 (2009) 5089-5121
163. E. N. Golubeva, D. N. Kharitonov, D. I. Kochubey, V. N. Ikorskü, V. V. Kriventsov, A. I. Kokorin, J. Stoetzner, D. W. Bahnemann  
“Formation of Active Catalysts in the System: Chlorocuprates – CCl<sub>4</sub> – n-C<sub>10</sub>H<sub>22</sub>”  
J. Phys. Chem. A 113 (2009) 10219-10223
164. A. A. Ismail, D. W. Bahnemann, L. Robben, V. Yarovy, M. Wark  
“Palladium Doped Porous Titania Photocatalysts: Impact of Mesoporous Order and Crystallinity”  
Chem. Mater. 22 (2010) 108-116
165. J. Z. Bloh, S. Wagner, D. W. Bahnemann, T. Scheper, C. Kasper  
“Untersuchungen zur Zytotoxizität von photokatalytisch aktiven Titandioxid-Nanopartikeln”  
Chemie Ingenieur Technik 82 (2010) 335-341
166. T. A. Kandiel, A. Feldhoff, L. Robben, R. Dillert, D. W. Bahnemann  
“Tailored Titanium Dioxide Nanomaterials: Anatase Nanoparticles and Brookite Nanorods as Highly Active Photocatalysts”  
Chem. Mater. 22 (2010) 2050-2060
167. T. A. Kandiel, R. Dillert, A. Feldhoff, D. W. Bahnemann  
“Direct Synthesis of Photocatalytically Active Rutile TiO<sub>2</sub> Nanorods Partly Decorated with Anatase Nanoparticles”  
J. Phys. Chem. C 114 (2010) 4909-4915
168. M. Muneer, M. Saquib, M. Qamar, D. Bahnemann  
“Photocatalysed Reaction of Indole in an Aqueous Suspension of Titanium Dioxide”  
Res. Chem. Intermed. 36 (2010) 121-125
169. N. P. Xekoukoulatakis, D. Mantzavinos, R. Dillert, D. Bahnemann  
“Synthesis and Photocatalytic Activity of Boron-doped TiO<sub>2</sub> in Aqueous Suspensions under UV-A Irradiation”  
Wat. Sci. Tech. 61 (2010) 2501-2506

***Dr. Detlef Bahnemann: Refereed Publications***

170. G. Sagawe, M. L. Satuf, R. J. Brandi, J. P. Muschner, C. Federer, O. M. Alfano, D. Bahnemann, A. E. Cassano  
“Analysis of Photocatalytic Reactors Employing the Photonic Efficiency and the Removal Efficiency Parameters: Degradation of Radiation Absorbing and Nonabsorbing Pollutants”  
Ind. Eng. Chem. Res. 49 (2010) 6898-6908
171. D. Friedmann, C. Mendive, D. Bahnemann  
“TiO<sub>2</sub> for Water Treatment: Parameters affecting the Kinetics and Mechanisms of Photocatalysis”  
Appl. Catal. B: Environ. 99 (2010) 398-406
172. A. A. Ismail, D. W. Bahnemann  
“Metal-Free Porphyrin-Sensitized Mesoporous Titania Films for Visible-Light Indoor Air Oxidation”  
ChemSusChem 3 (2010) 1057-1062
173. A. A. Ismail, T. A. Kandiel, D. W. Bahnemann  
“Novel (and Better?) Titania-Based Photocatalysts: Brookite Nanorods and Mesoporous Structures”  
J. Photochem. Photobiol., A: Chemistry 216 (2010) 183-193
174. H. H. Mohamed, R. Dillert, D. W. Bahnemann  
“Reaction Dynamics of the Transfer of Stored Electrons on TiO<sub>2</sub> Nanoparticles: A Stopped Flow Study”  
J. Photochem. Photobiol., A: Chemistry 217 (2011) 271-274
175. A. A. Ismail, D. W. Bahnemann  
“One-Step Synthesis of Mesoporous Platinum/Titania Nanocomposites as Photocatalysts with Enhanced Photocatalytic Activity for Methanol Oxidation”  
Green Chem. 13 (2011) 428-435
176. R. Dillert, A. Hakki, D. Bahnemann  
“(Green) Photocatalytic Synthesis Employing Nitroaromatic Compounds”  
Mater. Res. Soc. Symp. Proc. 1352 (2011) 119-127
177. V. M. Menéndez-Flores, D. W. Bahnemann, T. Ohno  
“Visible Light Photocatalytic Activities of S-doped TiO<sub>2</sub>-Fe<sup>3+</sup> in Aqueous and Gas Phase”  
Appl. Catal. B: Environ. 103 (2011) 99-108
178. T. A. Kandiel, R. Dillert, L. Robben, D. Bahnemann  
“Photonic Efficiency and Mechanism of Photocatalytic Hydrogen Production over Platinized Titanium Dioxide from Aqueous Methanol Solutions”  
Catalysis Today 161 (2011) 196-201
179. M. K. Nowotny, D. W. Bahnemann  
“Improved Photocatalytic Performance of Rutile TiO<sub>2</sub>”  
Phys. Status Solidi RRL 5 (2011) 92-94

***Dr. Detlef Bahnemann: Refereed Publications***

180. H. H. Mohamed, C. B. Mendive, R. Dillert, D. W. Bahnemann  
“Kinetic and Mechanistic Investigations of Multielectron Transfer Reactions Induced by Stored Electrons in TiO<sub>2</sub> Nanoparticles: A Stopped Flow Study”  
J. Phys. Chem. A 115 (2011) 2139-2147
181. A. A. Ismail, D. W. Bahnemann  
“Mesostructured Pt/TiO<sub>2</sub> Nanocomposites as Highly Active Photocatalysts for the Photooxidation of Dichloroacetic Acid”  
J. Phys. Chem. C 115 (2011) 5784-5791
182. A. A. Ismail, L. Robben, D. W. Bahnemann  
“Study of the Efficiency of UV and Visible-Light Photocatalytic Oxidation of Methanol on Mesoporous RuO<sub>2</sub>/TiO<sub>2</sub> Nanocomposites ”  
ChemPhysChem 12 (2011) 982-991
183. O. Merka, V. Yarovy, D. W. Bahnemann, M. Wark  
“pH-Control of the Photocatalytic Degradation Mechanism of Rhodamine B over Pb<sub>3</sub>Nb<sub>4</sub>O<sub>13</sub>”  
J. Phys. Chem. C 115 (2011) 8014-8023
184. A. A. Ismail, D. W. Bahnemann, J. Rathousky, V. Yarovy, M. Wark  
“Multilayered Ordered Mesoporous Platinum/Titania Composite Films: Does the Photocatalytic Activity Benefit from the Film Thickness?”  
J. Mater. Chem. 21 (2011) 7802-7810
185. R. Fateh, A. A. Ismail, R. Dillert, D. W. Bahnemann  
“Highly Active Crystalline Mesoporous TiO<sub>2</sub> Films Coated onto Polycarbonate Substrates for Self-Cleaning Applications”  
J. Phys. Chem. C 115 (2011) 10405-10411
186. H. H. Mohamed, R. Dillert, D. W. Bahnemann  
“Growth and Reactivity of Silver Nanoparticles on the Surface of TiO<sub>2</sub>: A Stopped-Flow Study”  
J. Phys. Chem. C 115 (2011) 12163-12172
187. L. Robben, A. A. Ismail, D. W. Bahnemann, J.-C. Buhl  
“Influence of the Interdependency between Matrix Material and Pore System on the Small Angle X-Ray Scattering in Ordered Mesoporous Materials”  
Micropor. Mesopor. Mat. 143 (2011) 277-283
188. S. K. Kansal, A. H. Ali, S. Kapoor, D. W. Bahnemann  
“Synthesis of Flower Like Zinc Oxide Nanostructure and its Application as a Photocatalyst”  
Sep. Purif. Technol. 80 (2011) 125-130
189. S. Wagner, J. Bloh, C. Kasper, D. Bahnemann  
“Toxicological Issues of Nanoparticles Employed in Photocatalysis”  
Green 1 (2011) 171-188

***Dr. Detlef Bahnemann: Refereed Publications***

190. A. Mitsionis, T. Vaimakis, C. Trapalis, N. Todorova, D. Bahnemann, R. Dillert  
“Hydroxyapatite/Titanium Dioxide Nanocomposites for Controlled Photocatalytic NO Oxidation”  
Appl. Catal. B: Environ. 106 (2011) 398-404
191. A. A. Ismail, D. W. Bahnemann  
“Mesoporous Titania Photocatalysts: Preparation, Characterization and Reaction Mechanisms”  
J. Mater. Chem. 21 (2011) 11686-11707
192. A. Y. Ahmed, T. A. Kandiel, T. Oekermann, D. Bahnemann  
“Photocatalytic Activities of Different Well-defined Single Crystal TiO<sub>2</sub> Surfaces: Anatase versus Rutile”  
J. Phys. Chem. Letters 2 (2011) 2461-2465
193. P. K. J. Robertson, D. W. Bahnemann, L. A. Lawton, E. Bellu  
“A Study of the Kinetic Solvent Isotope Effect on the Destruction of Microcystin-LR and Geosmin using TiO<sub>2</sub> Photocatalysis”  
Appl. Catal. B: Environ. 108-109 (2011) 1-5
194. L. Zhang, C. Baumanis, L. Robben, T. Kandiel, D. Bahnemann  
“Bi<sub>2</sub>WO<sub>6</sub> Inverse Opals: Facile Fabrication and Efficient Visible-light-driven Photocatalytic and Photoelectrochemical Water-Splitting Activity”  
Small 7 (2011) 2714-2720
195. C. B. Mendive, D. Hansmann, T. Bredow, D. Bahnemann  
“New Insights into the Mechanism of TiO<sub>2</sub> Photocatalysis: Thermal Processes beyond the Electron-Hole Creation”  
J. Phys. Chem. C 115 (2011) 19676-19685
196. T. A. Kandiel, A. A. Ismail, D. W. Bahnemann  
“Mesoporous TiO<sub>2</sub> Nanostructures: A Route to Minimize Pt Loading on Titania Photocatalysts for Hydrogen Production”  
Phys. Chem. Chem. Phys. 13 (2011) 20155-20161
197. C. Baumanis, J. Z. Bloh, R. Dillert, D. W. Bahnemann  
“Hematite Photocatalysis: Dechlorination of 2,6-Dichloroindophenol and Oxidation of Water”  
J. Phys. Chem. C 115 (2011) 25442-25450
198. M. P. Bello Lamo, D. Bahnemann  
“Photocatalytic Performance of S doped TiO<sub>2</sub> in Relation to Processing Conditions: Calcination temperature and Heating Rate”  
Mat. Res. Innov. 15 (2011) 414-421
199. A. Y. Ahmed, T. Oekermann, P. Lindner, D. Bahnemann  
“Comparison of the Photoelectrochemical Oxidation of Methanol on Rutile TiO<sub>2</sub> (001) and (110) Single Crystal Faces studied by Intensity Modulated Photocurrent Spectroscopy”  
Phys. Chem. Chem. Phys. 14 (2012) 2774-2783

***Dr. Detlef Bahnemann: Refereed Publications***

200. P. K. J. Robertson, J. M. C. Robertson, D. W. Bahnemann  
“Removal of Microorganisms and their Chemical Metabolites from Water using Semiconductor Photocatalysis”  
J. Hazard. Mat. 211-212 (2012) 161-171
201. R. Dillert, J. Stötzner, A. Engel, D. W. Bahnemann  
“Influence of Inlet Concentration and Light Intensity on the Photocatalytic Oxidation of Nitrogen(II) Oxide at the Surface of Aerioxide TiO<sub>2</sub> P25”  
J. Hazard. Mat. 211-212 (2012) 240-246
202. H. H. Mohamed, R. Dillert, D. W. Bahnemann  
“Kinetic and Mechanistic Investigations of the Light Induced Formation of Gold Nanoparticles on the Surface of TiO<sub>2</sub>”  
Chem. Eur. J. 18 (2012) 4314-4321
203. L. Robben, A. A. Ismail, S. J. Lohmeier, A. Feldhoff, D. W. Bahnemann, J.-C. Buhl  
“Facile Synthesis of Highly Ordered Mesoporous and Well Crystalline TiO<sub>2</sub>: Impact of Different Gas Atmosphere and Calcination Temperatures on Structural Properties”  
Chem. Mater. 24 (2012) 1268-1275
204. A. A. Ismail, A. Hakki, D. W. Bahnemann  
“Mesostructure Au/TiO<sub>2</sub> Nanocomposites for Highly Efficient Catalytic Reduction of p-Nitrophenol”  
J. Molec. Catal. A: Chem. 358 (2012) 145-151
205. L. Zhang, R. Dillert, D. Bahnemann, M. Vormoor  
“Photo-Induced Hydrophilicity and Self-Cleaning: Models and Reality”  
Energy Environ. Sci. 5 (2012) 7491-7507
206. A. A. Ismail, D. W. Bahnemann, S. A. Al-Sayari  
“Synthesis and Photocatalytic Properties of Nanocrystalline Au, Pd and Pt Photodeposited onto Mesoporous RuO<sub>2</sub>/TiO<sub>2</sub> Nanocomposites”  
Appl. Catal. A: General 431-432 (2012) 62-68
207. X. Vargas, E. Tauchert, J.-M. Marin, G. Restrepo, R. Dillert, D. Bahnemann  
“Fe-doped Titanium Dioxide Synthesized: Photocatalytic Activity and Mineralization Study for Azo Dye”  
J. Photochem. Photobiol., A: Chemistry 243 (2012) 17-22
208. T. Giannakopoulou, N. Todorova, G. Romanos, T. Vaimakis, R. Dillert, D. Bahnemann, C. Trapalis  
“Composite Hydroxyapatite/TiO<sub>2</sub> Materials for Photocatalytic Oxidation of NO<sub>x</sub>”  
Mater. Sci. Eng. B 177 (2012) 1046-1052
209. H. H. Mohamed, R. Dillert, D. W. Bahnemann  
“TiO<sub>2</sub> Nanoparticles as Electron Pools: Single- and Multi-Step Electron Transfer Processes”  
J. Photochem. Photobiol., A: Chemistry 245 (2012) 9-17

***Dr. Detlef Bahnemann: Refereed Publications***

210. A. A. Ismail, D. W. Bahnemann  
“Pt Colloidal Accommodated into Mesoporous TiO<sub>2</sub> Films for Photooxidation of Acetaldehyde in Gas Phase”  
Chem. Eng. J. 203 (2012) 174-181
211. J. Z. Bloh, R. Dillert, D. W. Bahnemann  
“Transition Metal-modified Zinc Oxides for UV and Visible Photocatalysis”  
Environ. Sci. Pollut. Res. 19 (2012) 3688-3695
212. J. B. Nehmann, S. Kajari-Schröder, D. W. Bahnemann  
“Analysis Methods for Meso- and Macroporous Silicon Etching Baths”  
Nanoscale Research Letters 7 (2012) 398
213. Y. Zhiyong, D. Bahnemann, R. Dillert, S. Lin, L. Liqin  
“Photocatalytic Degradation of Azo Dyes by BiOX (X=Cl, Br)”  
J. Molec. Catal. A: Chem. 365 (2012) 1-7
214. H. H. Mohamed, D. W. Bahnemann  
“The Role of Electron Transfer in Photocatalysis: Fact and Fictions”  
Appl. Catal. B: Environ. 128 (2012) 91-104
215. O. Merka, D. W. Bahnemann, M. Wark  
“Improved Photocatalytic Hydrogen Production by Structure Optimized Nonstoichiometric Y<sub>2</sub>Ti<sub>2</sub>O<sub>7</sub>”  
ChemCatChem. 4 (2012) 1819-1827
216. L. Zhang, H. H. Mohamed, R. Dillert, D. Bahnemann  
“Kinetics and Mechanisms of Charge Transfer Processes in Photocatalytic Systems: A Review”  
J. Photochem. Photobiol., C: Photochemistry Reviews 13 (2012) 263-276
217. T. A. Kandiel, R. Dillert, D. Bahnemann  
“Titanium Dioxide Nanoparticles and Nanostructures”  
Current Inorganic Chemistry 2 (2012) 94-114
218. J. Z. Bloh, R. Dillert, D. W. Bahnemann  
“Designing Optimal Metal-Doped Photocatalysts: Correlation between Photocatalytic Activity, Doping Ratio, and Particle Size”  
J. Phys. Chem. C 116 (2012) 25558-25562
219. A. A. Ismail, R. A. Geioushy, H. Bouzid, S. A. Al-Sayari, A. Al-Hajry, D. W. Bahnemann  
“TiO<sub>2</sub> Decoration of Graphene Layers for Highly Efficient Photocatalyst: Impact of Calcination at different Gas Atmosphere on Photocatalytic Efficiency ”  
Appl. Catal. B: Environ. 129 (2013) 62-70
220. A. Hakki, R. Dillert, D. W. Bahnemann  
“Factors Affecting the Selectivity of the Photocatalytic Conversion of Nitroaromatic Compounds over TiO<sub>2</sub> to Valuable Nitrogen-Containing Organic Compounds”  
Phys. Chem. Chem. Phys. 15 (2013) 2992-3002

**Dr. Detlef Bahnemann: Refereed Publications**

221. L. Zhang, D. Bahnemann  
“Synthesis of Nanovoid Bi<sub>2</sub>WO<sub>6</sub> 2D Ordered Arrays as Photoanodes for Photoelectrochemical Water Splitting”  
ChemSusChem. 6 (2013) 283-290
222. J. Z. Bloh, R. Dillert, D. W. Bahnemann  
“Zinc Oxide Photocatalysis: Influence of Iron and Titanium Doping and Origin of the Optimal Doping Ratio”  
ChemCatChem. 5 (2013) 774-778
223. O. Merka, O. Raisch, F. Steinbach, D. W. Bahnemann, M. Wark  
“Effects of Nonstoichiometry and Cocatalyst Loading on the Photocatalytic Hydrogen Production with (Y<sub>1.5</sub>Bi<sub>0.5</sub>)<sub>1-x</sub>Ti<sub>2</sub>O<sub>7-3x</sub> and (YBi)<sub>1-x</sub>Ti<sub>2</sub>O<sub>7-3x</sub> Pyrochlores”  
J. Am. Ceram. Soc. 96 (2013) 634-642
224. R. Fateh, R. Dillert, D. Bahnemann  
“Preparation and Characterization of Transparent Hydrophilic Photocatalytic TiO<sub>2</sub>/SiO<sub>2</sub> Thin Films on Polycarbonate”  
Langmuir 29 (2013) 3730-3739
225. A. Hakki, R. Dillert, D. W. Bahnemann  
“Arenesulfonic Acid-Functionalized Mesoporous Silica Decorated with Titania: A Heterogeneous Catalyst for the One-Pot Photocatalytic Synthesis of Quinolines from Nitroaromatic Compounds and Alcohols”  
ACS Catal. 3 (2013) 565-572
226. T. A. Kandiel, L. Robben, A. Alkaim, D. Bahnemann  
“Brookite versus Anatase TiO<sub>2</sub> Photocatalysts: Phase Transformations and Photocatalytic Activities”  
Photochem. Photobiol. Sci. 12 (2013) 602-609
227. J. F. Montoya, I. Ivanova, R. Dillert, D. W. Bahnemann, P. Salvador, J. Peral  
“Catalytic Role of Surface Oxygen in TiO<sub>2</sub> Photooxidation Reactions: Aqueous Benzene Photooxidation with Ti<sup>18</sup>O<sub>2</sub> under Anaerobic Conditions ”  
J. Phys. Chem. Letters 4 (2013) 1415-1422
228. A. A. Ismail, S. S. Al-Sayari, D. W. Bahnemann  
“Photodeposition of Precious Metals onto Mesoporous TiO<sub>2</sub> Nanocrystals with Enhanced their Photocatalytic Activity for Methanol Oxidation”  
Catalysis Today 209 (2013) 2-7
229. F. Riboni, L. G. Bettini, D. W. Bahnemann, E. Sellì  
“WO<sub>3</sub>-TiO<sub>2</sub> vs. TiO<sub>2</sub> Photocatalysts: Effect of the W Precursor and Amount on the Photocatalytic Activity of Mixed Oxides”  
Catalysis Today 209 (2013) 28-34

***Dr. Detlef Bahnemann: Refereed Publications***

230. I. Ivanova, J. Schneider, H. Gutzmann, J.-O. Kliemann, F. Gärtner, T. Klassen, D. Bahnemann, C. B. Mendive  
“Photocatalytic Degradation of Oxalic and Dichloroacetic Acid on TiO<sub>2</sub> Coated Metal Substrates”  
Catalysis Today 209 (2013) 84-90
231. M.-V. Safianou, V. Pscharis, N. Boukos, T. Vaimakis, J. Yu, R. Dillert, D. Bahnemann, C. Trapalis  
“Tuning the Photocatalytic Selectivity of TiO<sub>2</sub> Anatase Nanoplates by Altering the Exposed Crystal Facets Content ”  
Appl. Catal. B: Environ. 142-143 (2013) 761-768
232. S. K. Kansal, A. H. Ali, S. Kapoor, D. W. Bahnemann  
“Preparation, Characterization and Photocatalytic Activity of Nanosized ZnO for the Degradation of Rhodamine B Dye and Simulated Dyebath Effluent”  
Sci. Adv. Mater. 5 (2013) 630-636
233. A. F. Alkaim, T. A. Kandiel, F. H. Hussein, R. Dillert, D. W. Bahnemann  
“Solvent-free Hydrothermal Synthesis of Anatase TiO<sub>2</sub> Nanoparticles with Enhanced Photocatalytic Hydrogen Production Activity ”  
Appl. Catal. A: General 466 (2013) 32-37
234. J. Schneider, D. W. Bahnemann  
“Undesired Role of Sacrificial Reagents in Photocatalysis”  
J. Phys. Chem. Letters 4 (2013) 3479-3483
235. A. Hakki, R. Dillert, D. W. Bahnemann  
“Photocatalysis as an Auspicious Synthetic Route Towards Nitrogen Containing Organic Compounds”  
Current Organic Chemistry 17 (2013) 2482-2502
236. A. F. Alkaim, T. A. Kandiel, F. H. Hussein, R. Dillert, D. W. Bahnemann  
“Enhancing the Photocatalytic Activity of TiO<sub>2</sub> by pH Control: A Case Study for the Degradation of EDTA ”  
Catal. Sci. Technol. 3 (2013) 3216-3222
237. R. Dillert, A. Engel, J. Große, P. Lindner, D. W. Bahnemann  
“Light Intensity Dependence of the Kinetics of the Photocatalytic Oxidation of Nitrogen(II) Oxide at the Surface of TiO<sub>2</sub>”  
Phys. Chem. Chem. Phys. 15 (2013) 20876-20886
238. M. Adams, I. Campbell, C. McCullagh, D. Russell, D. W. Bahnemann, P. K. J. Robertson  
“From Ideal Reactor Concepts to Reality: The Novel Drum Reactor for Photocatalytic Wastewater Treatment”  
Int. J. Chem. React. Eng. 11 (2013) 621-632
239. J. H. Pan, X. Z. Wang, Q. Huang, C. Shen, Z. Y. Koh, Q. Wang, A. Engel, D. W. Bahnemann  
“Large-scale Synthesis of Urchin-like Mesoporous TiO<sub>2</sub> Hollow Spheres by Targeted Etching and Their Photoelectrochemical Properties”  
Adv. Funct. Mater. 24 (2014) 95-104

***Dr. Detlef Bahnemann: Refereed Publications***

240. O. Merka, D. W. Bahnemann, M. Wark  
“Photocatalytic Hydrogen Production with Non-Stoichiometric Pyrochlore Bismuth Titanate”  
Catalysis Today 225 (2014) 102-110
241. J. Z. Bloh, R. Dillert, D. W. Bahnemann  
“Ruthenium-modified Zinc Oxide, a Highly Active Vis-Photocatalyst: the Nature and Reactivity of Photoactive Centres”  
Phys. Chem. Chem. Phys. 16 (2014) 5833-5845
242. R. Fateh, R. Dillert, D. Bahnemann  
“Self-Cleaning Properties, Mechanical Stability, and Adhesion Strength of Transparent Photocatalytic TiO<sub>2</sub>-ZnO Coatings on Polycarbonate”  
ACS Appl. Mater. Interfaces 6 (2014) 2270-2278
243. J. B. Nehmann, N. Ehrmann, R. Reineke-Koch, D. W. Bahnemann  
“Aluminum-doped Zinc Oxide Sol-Gel Thin Films: Influence of the Sol’s Water Content on the Resistivity”  
Thin Solid Films 556 (2014) 168-173
244. L. M. Ahmed, I. Ivanova, F. H. Hussein, D. W. Bahnemann  
“Role of Platinum Deposited on TiO<sub>2</sub> in Photocatalytic Methanol Oxidation and Dehydrogenation Reactions”  
Int. J. Photoenergy (2014) Article Number 503516
245. T. A. Kandiel, I. Ivanova, D. W. Bahnemann  
“Long-term Investigation of the Photocatalytic Hydrogen Production on Platinized TiO<sub>2</sub>: An Isotopic Study”  
Energy Environ. Sci. 7 (2014) 1420-1425
246. J. H. Pan, Q. Wang, D. W. Bahnemann  
“Hydrous TiO<sub>2</sub> Spheres: An Excellent Platform for the Rational Design of Mesoporous Anatase Spheres for Photoelectrochemical Applications”  
Catalysis Today 230 (2014) 197-204
247. M. Qamar, B. Merzougui, D. Anjum, A. S. Hakeem, Z. H. Yamani, D. Bahnemann  
“Synthesis and Photocatalytic Activity of Mesoporous Nanocrystalline Fe-doped Titanium Dioxide”  
Catalysis Today 230 (2014) 158-165
248. C. Neinhuis, F. Groß, L. Elfenthal, S. Blöß, R. Grau, M. Fleisch, D. Bahnemann  
“Photokatalyse und selbstreinigende Beschichtungen: Reinigen mit Licht und Regen”  
Chem. Unserer Zeit 48 (2014) 92-100
249. J. Freitag, D. W. Bahnemann  
“Evaluation of the Photocatalytic (visible-light) Activity of Cold Gas Sprayed TiO<sub>2</sub> Layers on Metal Sheets”  
Phys. Status Solidi RRL 8 (2014) 596-599

***Dr. Detlef Bahnemann: Refereed Publications***

250. A. A. Ismail, D. W. Bahnemann  
“Photochemical Splitting of Water for Hydrogen Production by Photocatalysis: A Review”  
*Solar Energy Materials & Solar Cells* 128 (2014) 85-101
251. M. Krivec, R. Dillert, D. W. Bahnemann, A. Mehle, J. Strancar, G. Drazic  
“The Nature of Chlorine-Inhibition of Photocatalytic Degradation of Dichlororacetic Acid in a TiO<sub>2</sub>-based Microreactor”  
*Phys. Chem. Chem. Phys.* 16 (2014) 14867-14873
252. J. F. Montoya, M. F. Atitar, D. W. Bahnemann, J. Peral, P. Salvador  
“Comprehensive Kinetic and Mechanistic Analysis of TiO<sub>2</sub> Photocatalytic Reactions According to the Direct-Indirect Model: (II) Experimental Validation”  
*J. Phys. Chem. C* 118 (2014) 14276-14290
253. F. F. Karam, F. H. Hussein, S. J. Baqir, A. F. Halbus, R. Dillert, D. Bahnemann  
“Photocatalytic Degradation of Anthracene in Closed System Reactor”  
*Int. J. Photoenergy* (2014) Article ID 503825
254. J. F. Montoya, D. W. Bahnemann, J. Peral, P. Salvador  
“Catalytic Role of TiO<sub>2</sub> Terminal Oxygen Atoms in Liquid-Phase Photocatalytic Reactions: Oxidation of Aromatic Compounds in Anhydrous Acetonitrile”  
*ChemPhysChem* 15 (2014) 2311-2320
255. J. Schneider, M. Matsuoka, M. Takeuchi, J. Zhang, Y. Horiuchi, M. Anpo, D. W. Bahnemann  
“Understanding TiO<sub>2</sub> Photocatalysis: Mechanisms and Materials”  
*Chem. Rev.* 114 (2014) 9919-9986
256. A. O. T. Patrochinio, L. F. Paula, R. M. Paniago, J. Freitag, D. W. Bahnemann  
“Layer-by-Layer TiO<sub>2</sub>-WO<sub>3</sub> Thin Films As Efficient Photocatalytic Self-Cleaning Surfaces”  
*ACS Appl. Mater. Interfaces* 6 (2014) 16859-16866
257. A. Y. Ahmed, T. A. Kandiel, I. Ivanova, D. Bahnemann  
“Photocatalytic and Photoelectrochemical Oxidation Mechanisms of Methanol on TiO<sub>2</sub> in Aqueous Solution”  
*Appl. Surf. Sci.* 319 (2014) 44-49
258. A. M. Kamil, F. H. Hussein, A. F. Halbus, D. W. Bahnemann  
“Preparation, Characterization, and Photocatalytic Applications of MWCNTs/TiO<sub>2</sub> Composite”  
*Int. J. Photoenergy* (2014) Article Number 475713
259. M. Qamar, R. B. Elsayed, K. R. Alhooshani, M. I. Ahmed, D. W. Bahnemann  
“Chemoselective and Highly Efficient Conversion of Aromatic Alcohols into Aldehydes Photocatalyzed by Ag<sub>3</sub>PO<sub>4</sub> in Aqueous Suspension under Simulated Sunlight”  
*Catalysis Commun.* 58 (2015) 34-39

***Dr. Detlef Bahnemann: Refereed Publications***

260. C. B. Mendive, T. Bredow, J. Schneider, M. Blesa, D. Bahnemann,  
“Oxalic Acid at the TiO<sub>2</sub> /Water Interface under UV(A) Illumination: Surface Reaction Mechanisms”  
J. Catalysis 322 (2015) 60-72
261. A. Engel, A. Glyk, A. Hülsewig, J. Grosse, R. Dillert, D. W. Bahnemann  
“Determination of the Photocatalytic Deposition Velocity”  
Chem. Eng. Journal 261 (2015) 88-94
262. M. Faycal Atitar, A. A. Ismail, S. A. Al-Sayari, D. Bahnemann, D. Afanasev, A. V. Emeline  
“Mesoporous TiO<sub>2</sub> Nanocrystals as Efficient Photocatalysts: Impact of Calcination Temperature and Phase Transformation on Photocatalytic Performance”  
Chem. Eng. Journal 264 (2015) 417-424
263. M. Bello Lamo, M. Buering, D. Bahnemann  
“Effect of Flowrate, Photocatalyst Loading and Illumination Conditions on the Photocatalytic Disinfection of Recombinant *Escherichia Coli*”  
Mat. Res. Innov. 19 (2015) 20-23
264. M. Qamar, R. B. Elsayed, K. R. Alhooshani, M. I. Ahmed, D. W. Bahnemann  
“Highly Efficient and Selective Oxidation of Aromatic Alcohols Photocatalyzed by Nanoporous Hierarchical Pt/Bi<sub>2</sub>WO<sub>6</sub> in Organic Solvent-Free Environment”  
ACS Appl. Mater. Interfaces 7 (2015) 1257-1269
265. W. Raza, M. M. Haque, M. Munneer, M. Fleisch, A. Hakki, D. Bahnemann  
“Photocatalytic Degradation of Different Chromophoric Dyes in Aqueous Phase Using La and Mo Doped TiO<sub>2</sub> Hybrid Carbon Spheres”  
J. Alloys Comd. 632 (2015) 837-844
266. F. Sambale, S. Wagner, F. Stahl, R. R. Khaydarov, T. Scheper, D. W. Bahnemann  
“Investigations of the Toxic Effect of Silver Nanoparticles on Mammalian Cell Lines”  
J. Nanomater. (2015) Article ID 136765
267. J. Freitag, A. Domínguez, T. A. Niehaus, A. Hülsewig, R. Dillert, T. Frauenheim, D. W. Bahnemann  
“Nitrogen(II) Oxide Charge Transfer Complexes on TiO<sub>2</sub>: A New Source for Visible-Light Activity”  
J. Phys. Chem. C 119 (2015) 4488-4501
268. M. G. Ahmed, T. A. Kandiel, A. Y. Ahmed, I. Kretschmer, F. Rashwan, D. Bahnemann  
“Enhanced Photoelectrochemical Water Oxidation on Nanostructured Hematite Photoanodes via p-CaFe<sub>2</sub>O<sub>4</sub>/n-Fe<sub>2</sub>O<sub>3</sub> Heterojunction Formation”  
J. Phys. Chem. C 119 (2015) 5864-5871
269. A. A. Ismail, I. Abdelfattah, M. F. Atitar, L. Robben, H. Bouzid, S. A. Al-Sayari, D. W. Bahnemann  
“Photocatalytic Degradation of Imazapyr using Mesoporous Al<sub>2</sub>O<sub>3</sub>-TiO<sub>2</sub> Nanocomposites”  
Sep. Purif. Technol. 145 (2015) 147-153

***Dr. Detlef Bahnemann: Refereed Publications***

270. A. F. Alkaim, R. Dillert, D. W. Bahnemann  
“Effect of Polar and Movable (OH or NH<sub>2</sub> Groups) on the Photocatalytic H<sub>2</sub> Production of Alkyl-Alkanolamine: A Comparative Study”  
Environ. Technol. 36 (2015) 2190-2197
271. A. V. Rudakova, U. G. Oparicheva, A. E. Grishina, M. V. Maevskaia, A. V. Emeline, D. W. Bahnemann  
“Dependences of ZnO Photoinduced Hydrophilic Conversion on Light Intensity and Wavelengths”  
J. Phys. Chem. C 119 (2015) 9824-9828
272. F. Sambale, A. Lavrentieva, F. Stahl, C. Blume, M. Stiesch, C. Kasper, D. Bahnemann, T. Schepers  
“Three Dimensional Spheroid Cell Culture for Nanoparticle Safety Testing”  
J. Biotechnol. 205 (2015) 120-129
273. H. Kisch, D. Bahnemann  
“Best Practice in Photocatalysis: Comparing Rates or Apparent Quantum Yields? ”  
J. Phys. Chem. Letters 6 (2015) 1907-1910
274. J. M. Meichtry, R. Dillert, D. W. Bahnemann, M. I. Litter  
“Application of the Stopped Flow Technique to the TiO<sub>2</sub>-Heterogeneous Photocatalysis of Hexavalent Chromium in Aqueous Suspensions: Comparison with O<sub>2</sub> and H<sub>2</sub>O<sub>2</sub> as Electron Acceptors”  
Langmuir 31 (2015) 6229-6236
275. J. H. Pan, C. Chen, I. Ivanova, N. Zhou, X. Wang, W. C. Tan, Q.-H. Xu, D. W. Bahnemann, Q. Wang  
“Self-Template Synthesis of Porous Perovskite Titanate Solid and Hollow Submicrospheres for Photocatalytic Oxygen Evolution and Mesoscopic Solar Cells”  
ACS Appl. Mater. Interfaces 7 (2015) 14859-14869
276. F. Sambale, F. Stahl, D. Bahnemann, T. Schepers  
“In Vitro Toxicological Nanoparticle Studies under Flow Exposure”  
J. Nanopart. Res. 17 (2015) 1-12
277. A. Engel, J. Große, R. Dillert, D. Bahnemann  
“The Influence of Irradiance and Humidity on the Photocatalytic Conversion of Nitrogen(II) Oxide”  
J. Adv. Oxid. Technol. 18 (2015) 195-203
278. J. Freitag, D. W. Bahnemann  
“Influence of the Metal Work Function on the Photocatalytic Properties of TiO<sub>2</sub> Layers on Metals”  
ChemPhysChem 16 (2015) 2670-2679
279. A. O. T. Patrocínio, J. Schneider, M. D. Franca, L. M. Santos, B. P. Caixeta, A. E. H. Machado, D. W. Bahnemann  
“Charge Carrier Dynamics and Photocatalytic Behavior of TiO<sub>2</sub> Nanopowders Submitted to Hydrothermal or Conventional Heat Treatment”  
RSC Adv. 5 (2015) 70536-70545

***Dr. Detlef Bahnemann: Refereed Publications***

280. F. Sambale, F. Stahl, F. Rüdinger, D. Seliktar, C. Kasper, D. Bahnemann, T. Schepers  
“Iterative Cellular Screening System for Nanoparticle Safety Testing”  
J. Nanomater. (2015) Article ID 691069
281. H. Belhadj, A. Hakki, P. K. J. Robertson, D. W. Bahnemann  
“In situ ATR-FTIR Study of H<sub>2</sub>O and D<sub>2</sub>O Adsorption on TiO<sub>2</sub> under UV Irradiation”  
Phys. Chem. Chem. Phys. 17 (2015) 22940-22946
282. S. Ganesh Babu, R. Vinoth, P. Surya Narayana, D. Bahnemann, B. Neppolian  
“Reduced Graphene Oxide Wrapped Cu<sub>2</sub>O Supported on C<sub>3</sub>N<sub>4</sub>: An Efficient Visible Light Responsive Semiconductor Photocatalyst”  
APL Mater. 3 (2015) Article ID 104415
283. R. Dillert, D. H. Taffa, M. Wark, T. Bredow, D. W. Bahnemann  
“Research Update: Photoelectrochemical Water Splitting and Photocatalytic Hydrogen Production using Ferrites (MFe<sub>2</sub>O<sub>4</sub>) under Visible Light Irradiation”  
APL Mater. 3 (2015) Article ID 104001
284. K. H. Leong, L. C. Sim, D. Bahnemann, M. Jang, S. Ibrahim, P. Saravanan  
“Reduced Graphene Oxide and Ag Wrapped TiO<sub>2</sub> Photocatalyst for Enhanced Visible Light Photocatalysis”  
APL Mater. 3 (2015) Article ID 104503
285. M. Curti, J. Schneider, D. W. Bahnemann, C. B. Mendive  
“Inverse Opal Photonic Crystals as a Strategy to Improve Photocatalysis: Underexplored Questions ”  
J. Phys. Chem. Letters 6 (2015) 3903-3910
286. V. Etacheri, C. Di Valentin, J. Schneider, D. Bahnemann, S. C. Pillai  
“Visible-light Activation of TiO<sub>2</sub> Photocatalysts: Advances in Theory and Experiments”  
J. Photochem. Photobiol., C: Photochemistry Reviews 25 (2015) 1-29
287. C. B. Mendive, T. Bredow, J. Schneider, M. Blesa, D. Bahnemann,  
“Corrigendum to „Oxalic Acid at the TiO<sub>2</sub> /Water Interface under UV(A) Illumination: Surface Reaction Mechanisms“ [J. Catal. 322 (2015) 60-72]”  
J. Catalysis 330 (2015) 570
288. M. G. Ahmed, I. E. Kretschmer, T. A. Kandiel, A. Y. Ahmed, F. A. Rashwan, D. W. Bahnemann  
“A Facile Surface Passivation of hematite Photoanodes with TiO<sub>2</sub> Overlayers for Efficient Solar Water Splitting”  
ACS Appl. Mater. Interfaces 7 (2015) 24053-24062
289. A. A. Murashkina, P. D. Murzin, A. E. Grishina, A. V. Rudakova, V. K. Ryabchuk, A. V. Emeline, D. W. Bahnemann  
“Influence of the Dopant Concentration on the Photocatalytic Activity: Al-Doped TiO<sub>2</sub>”  
J. Phys. Chem. C 119 (2015) 24695-24703

***Dr. Detlef Bahnemann: Refereed Publications***

290. D. H. Taffa, I. Hamm, C. Dunkel, I. Sinev, D. Bahnemann, M. Wark  
“Electrochemical Deposition of Fe<sub>2</sub>O<sub>3</sub> in the Presence of Organic Additives: A Route to Enhanced Photoactivity”  
RSC Adv. 5 (2015) 103512-103522
291. S. J. Wolter, M. Köntges, D. Bahnemann, R. Brendel  
“Stable Anodes for Lithium Ion Batteries made of Self-organized Mesoporous Silicon”  
Semicond. Sci. Technol. 31 (2016) Article ID 014007 (9 pp)
292. W. Raza, A. Khan, U. Alam, M. Munneer, D. Bahnemann  
“Facile Fabrication of Visible Light Induced Bi<sub>2</sub>O<sub>3</sub> Nanorod Using Conventional Heat Treatment Method”  
J. Molec. Struct. 1107 (2016) 39-46
293. A. Freytag, S. Sánchez-Paradinas, S. Naskar, N. Wendt, M. Colombo, G. Pugliese, J. Poppe, C. Demirci, I. Kretschmer, D. W. Bahnemann, P. Behrens, N. C. Bigall  
“Versatile Aerogel Fabrication by Freezing and Subsequent Freez-Drying of Colloidal Nanoparticle Solutions”  
Angew. Chem. Int. Ed. 55 (2016) 1200-1203
294. A. V. Rudakova, U. G. Oparicheva, A. E. Grishina, A. A. Murashkina, A. V. Emeline, D. W. Bahnemann  
“Photoinduced Hydrophilic Conversion of hydrated ZnO Surfaces”  
J. Colloid Interface Sci. 466 (2016) 452-460
295. A. A. Ismail, I. Abdelfattah, A. Helal, S. A. Al-Sayari, L. Robben, D. W. Bahnemann  
“Ease Synthesis of Mesoporous WO<sub>3</sub>-TiO<sub>2</sub> Nanocomposites with Enhanced Photocatalytic Performance for Photodegradation of Herbicide Imazapyr under Visible Light and UV Illumination”  
J. Hazard. Mater. 307 (2016) 43-54
296. J. N. Meichtry, I. K. Levy, H. H. Mohamed, R. Dillert, D. W. Bahnemann, M. I. Litter  
“Mechanistic Features of the TiO<sub>2</sub> Heterogeneous Photocatalysis of Arsenic and Uranyl Nitrate in Aqueous Suspensions Studied by the Stopped-Flow Technique”  
ChemPhysChem 17 (2016) 885-892
297. J. Schneider, K. Nikitin, M. Wark, D. W. Bahnemann, R. Marschall  
“Improved Charge Carrier Separation in Barium Tantalate Composites Inverstigated by Laser Flash Photolysis”  
Phys. Chem. Chem. Phys. 18 (2016) 10719-10726
298. I. Ivanova, C. B. Mendive, D. Bahnemann  
“The Role of Nanoparticulate Agglomerates in TiO<sub>2</sub> Photocatalysis: Degradation of Oxalic Acid”  
J. Nanopart. Res. 18 (2015) Article ID 187 (13 pp)
299. J. Sivanadanam, P. Ganesan, P. Gao, Md. K. Nazeeruddin, A. Emeline, D. Bahnemann, R. Rajalingam  
“Impact of Strength and Size of Donors on the Optoelectronic Properties of D-□-A Sensitizers”  
RSC Adv. 6 (2016) 37347-37361

***Dr. Detlef Bahnemann: Refereed Publications***

300. W. Raza, S. M. Faisal, M. Owais, D. Bahnemann, M. Muneer  
“Facile Fabrication of Highly Efficient Modified ZnO Photocatalyst with Enhanced Photocatalytic, Antibacterial and Anticancer Activity”  
RSC Adv. 6 (2016) 78335-78350
301. A. F. Alkaim, T. A. Kandiel, R. Dillert, D. W. Bahnemann  
“Photocatalytic Hydrogen Production from Biomass-Derived Compounds: A Case Study of Citric Acid”  
Environ. Technol. 37 (2016) 2687-2693
302. D. Friedmann, A. Hakki, H. Kim, W. Choi, D. Bahnemann  
“Heterogeneous Photocatalytic Organic Synthesis: State-of-the-Art and Future Perspectives”  
Green Chem. 18 (2016) 5391-5411
303. K. A. Borges, L. M. Santos, R. M. Paniago, N. M. Barbosa Neto, J. Schneider, D. W. Bahnemann, A. O. T. Patrocínio, A. E. H. Machado  
“Characterization of a Highly Efficient N-doped TiO<sub>2</sub> Photocatalyst Prepared via Factorial Design”  
New J. Chem. 40 (2016) 7846-7855
304. A. V. Rudakova, M. V. Maevskaya, A. V. Emeline, D. W. Bahnemann  
“Light-Controlled ZrO<sub>2</sub> Surface Hydrophilicity”  
Scientific Reports 6 (2016) 34285
305. E. Friehs, Y. AlSalka, R. Jonczyk, A. Lavrentieva, A. Jochums, J.-G. Walter, F. Stahl, T. Scheper, D. Bahnemann  
“Toxicity, Phototoxicity and Biocidal Activity of Nanoparticles Employed in Photocatalysis”  
J. Photochem. Photobiol., C: Photochemistry Reviews 29 (2016) 1-28
306. T. A. Kandiel, A. Y. Ahmed, D. Bahnemann  
“TiO<sub>2</sub> (B)/Anatase Heterostructure Nanofibers Decorated with Anatase Nanoparticles as Efficient Photocatalysts for Methanol Oxidation”  
J. Molec. Catal. A: Chemical 425 (2016) 55-60
307. D. Bahnemann  
“Paola Calza and Davide Vione (Eds.): Surface Water Photochemistry”  
Anal. Bioanal. Chem. 408 (2016) 7547-7548
308. H. Belhadj, S. Melchers, P. K. J. Robertson, D. W. Bahnemann  
“Pathways of the Photocatalytic Reaction of Acetate in H<sub>2</sub>O and D<sub>2</sub>O: A Combined EPR and ATR-FTIR Study”  
J. Catalysis 344 (2016) 831-840
309. F. H. Abdulrazzak, F. H. Hussein, A. F. Alkaim, I. Ivanova, A. V. Emeline, D. Bahnemann  
“Sonochemical/Hydration-Dehydration Synthesis of Pt-TiO<sub>2</sub> NPs/Decorated Carbon Nanotubes with Enhanced Photocatalytic Hydrogen Production Activity”  
Photochem. Photobiol. Sci. 15 (2016) 1347-1357

**Dr. Detlef Bahnemann: Refereed Publications**

310. S. M. El-Sheikh, T. M. Khedr, A. Hakki, A. A. Ismail, W. A. Badawy, D. W. Bahnemann  
“Visible Light Activated Carbon and Nitrogen Co-doped Mesoporous Titanium Oxide as Efficient Photocatalyst for Degradation of Ibuprofen”  
*Sep. Purif. Technol.* 173 (2017) 258-268
311. J. Melcher, N. Barth, C. Schilde, A. Kwade, D. Bahnemann  
“Influence of TiO<sub>2</sub> Agglomerate and Aggregate Sizes on Photocatalytic Activity”  
*J. Mater. Sci.* 52 (2017) 1047-1056
312. A. Barhoum, J. Melcher, G. Van Assche, H. Rahier, M. Bechelany, M. Fleisch, D. Bahnemann  
“Synthesis, Growth Mechanism, and Photocatalytic Activity of Zinc Oxide Nanostructures: Porous Microparticles versus Nonporous Nanoparticles”  
*J. Mater. Sci.* 52 (2017) 2746-2762
313. K. H. Leong, Z. Z. Tan, L. C. Sim, P. Saravanan, D. Bahnemann, M. Jang  
“Symbiotic Interaction of Amalgamated Photocatalysts with Improved Day Light Utilisation and Charge Separation”  
*ChemistrySelect* 2 (2017) 84-89
314. F. Sambale, J. Hesselbach, B. Finke, C. Schilde, F. Stahl, D. Bahnemann, T. Scheper, A. Kwade  
“Surface and Mechanical Properties of nanoparticulate Resin Coatings and their Toxicological Characterization”  
*Chem. Eng. Technol.* 40 (2017) 376-384
315. N. Pugazhenthiran, K. Kaviyarasan, T. Sivasankar, A. Emeline, D. Bahnemann, R. V. Mangalaraja, S. Anandan  
“Sonochemical Synthesis of Porous NiTiO<sub>3</sub> Nanorods for Photocatalytic Degradation of Ceftiofur Sodium”  
*Ultrason. Sonochem.* 35 Part A (2017) 342-350
316. A. Barhoum, G. Van Assche, H. Rahier, M. Fleisch, S. Bals, M.-P. Delplancked, F. Leroux, D. Bahnemann  
“Sol-Gel Hot Injection Synthesis of ZnO Nanoparticles into a Porous Silica Matrix and Reaction Mechanism”  
*Mater. Des.* 119 (2017) 270-276
317. V. V. Dhayabaran, T. D. Prakash, R. Renganathan, E. Friehs, D. W. Bahnemann  
“Novel Bioactive Co(II), Cu(II), Ni(II) and Zn(II) Complexes with Schiff Base Ligand Derived from Histidine and 1,3-Indandione: Synthesis, Structural Elucidation, Biological Investigation and Docking Analysis”  
*J. Fluores.* 27 (2017) 135-150
318. U. Alam, A. Khan, W. Raza, A. Khan, D. Bahnemann, M. Muneer  
“Highly Efficient Y and V Co-doped ZnO Photocatalyst with Enhanced Dye Sensitized Visible Light Photocatalytic Activity”  
*Catal. Today* 284 (2017) 169-178

**Dr. Detlef Bahnemann: Refereed Publications**

319. S. Anandan, R. Sundara, G. Balasubramaniam, A. V. Emeline, D. Bahnemann, J. J. Wu  
“Facile Ultrasound Assisted Synthesis of Monodisperse Spherical CuMn(OH)<sub>3</sub>NO<sub>3</sub> Nanoparticles for Energy Storage Applications”  
J. Alloys Compd. 699 (2017) 745-750
320. J. F. Montoya, D. W. Bahnemann, P. Salvador, J. Peral  
“Catalytic Role of Bridging Oxygens in TiO<sub>2</sub> Liquid Phase Photocatalytic Reactions: Analysis of H<sub>2</sub><sup>16</sup>O Photooxidation on labeled Ti<sup>18</sup>O<sub>2</sub>”  
Catal. Sci. Technol. 7 (2017) 902-910
321. J. Melcher, S. Feroz, D. Bahnemann  
“Comparing Photocatalytic Activities of Commercially Available Iron-doped and Iron-undoped TiO<sub>2</sub> P25 Powders”  
J. Mater. Sci. 52 (2017) 6341-6348
322. S. Naskar, F. Lübkemann, S. Hamid, A. Freytag, A. Wolf, J. Koch, I. Ivanova, H. Pfür, D. Dorfs, D. W. Bahnemann, N. C. Bigall  
“Synthesis of Ternary and Quaternary Au and Pt Decorated CdSe/CdS Heteronanoplatelets with Controllable Morphology”  
Adv. Funct. Mater. 27 (2017) 1604685
323. M. F. Atitar, R. Dillert, D. W. Bahnemann  
“Surface Interactions between Imazapyr and the TiO<sub>2</sub> Surface: An in Situ ATR-FTIR Study”  
J. Phys. Chem. C 121 (2017) 4293-4303
324. R. Fateh, R. Dillert, D. Bahnemann  
“Self-cleaning Coating on Polymeric Substrates”  
RSC Smart Materials No. 21: "Self-cleaning Coatings: Structure, Fabrication and Application", J. He (Ed.) (2017) 142-165
325. S. Hamid, I. Ivanova, T. H. Jeon, R. Dillert, W. Choi, D. W. Bahnemann  
“Photocatalytic Conversion of Acetate into Molecular Hydrogen and Hydrocarbons over Pt/TiO<sub>2</sub>: pH Dependent Formation of Kolbe and Hofer-Moest Products”  
J. Catal. 349 (2017) 128-135
326. J. Schneider, K. Nikitin, R. Dillert, D. W. Bahnemann  
“Laser-Flash-Photolysis-Spectroscopy: A Nondestructive Method?”  
Faraday Discuss. 197 (2017) 505-516
327. H. Niemantsverdriet, P. van Helden, E. Hensen, D. Lennon, K. Holt, G. Hutchings, M. Bowker, R. Catlow, M. Shozi, L. Jewell, M. Claeys, J. Hayward, N. Coville, N. Fischer, A. Roldan, E. Redekop, T. Gambu, L. Deeplal, T. P. O. Mkhwanazi, K.-J. Weststrate, D. Bahnemann, M. Neurock, H. Schulz, D. Ma, S. Kondrat, P. Collier, A. K. Gupta, A. Corma, P. Akomeah, E. Iglesia, E. van Steen, N. de Leeuw, M. Wolf, T. van Heerden  
“Catalysis for Fuels: General Discussion”  
Faraday Discuss. 197 (2017) 165-205

328. K. Holt, L. Jewell, H. Niemantsverdriet, L. Macheli, M. Shozi, G. Hutchings, T. Wezendonk, M. Bowker, R. Catlow, S. Adam, P. J. Kooyman, E. Hensen, J. Hayward, N. Coville, K.-J. Weststrate, N. Fischer, A. Roldan, E. Redekop, E. van Steen, H. Friedrich, D.-H. Kuo, H. Bandaru, L. Deepal, A. Zivkovic, K. Neiker, C. Tucker, T. P. O. Mkhwanazi, D. Bahnemann, M. Neurock, A. Petersen, R. P. Forbes, T. Phaalamlohlaka, H. Schulz, D. Lennon, U. Olsbye, M. Wolf, S. Kondrat, P. Collier, X. Sun, Y. Zheng, A. Corma, E. Iglesia, T. Nyathi, D. Ma, M. Bremmer, M. Claeys, F. Kapteijn  
“Designing New Catalysts for Synthetic Fuels: General Discussion”  
Faraday Discuss. 197 (2017) 353-388
329. G. Hutchings, M. Bowker, R. Catlow, T. Nyathi, I. Abdullah, M. Claeys, N. Coville, A. Roldan, P. van Helden, N. Fischer, E. van Steen, L. Jewell, L. Mokoloko, D. Bahnemann, M. Neurock, F. Kapteijn, E. Iglesia, P. Gibson, K. Holt, K. Domen, A. K. Gupta  
“Novel Photocatalysts: General Discussion”  
Faraday Discuss. 197 (2017) 533-546
330. Y. Choi, M. S. Koo, A. D. Bokare, D.-H. Kim, D. W. Bahnemann, W. Choi  
“Sequential Process Combination of Photocatalytic Oxidation and Dark Reduction for the Removal of Organic Pollutants and Cr(VI) using Ag/TiO<sub>2</sub>”  
Environ. Sci. Technol. 51 (2017) 3973-3981
331. S. Anandan, J. J. Wu, D. Bahnemann, A. Emeline, M. Ashokkumar  
“Crumpled Cu<sub>2</sub>O-g-C<sub>3</sub>N<sub>4</sub> Nanosheets for Hydrogen Evolution Catalysis”  
Colloid Surface A 527 (2017) 34-41
332. W. Raza, D. Bahnemann, M. Muneer  
“Efficient Visible Light Driven, Mesoporous Graphitic Carbon Nitrite Based Hybrid Nanocomposite: With Superior Photocatalytic Activity for Degradation of Organic Pollutant in Aqueous Phase”  
J. Photochem. Photobiol., A: Chemistry 342 (2017) 102-115
333. N. Pugazhenthiran, K. Kaviyarasan, T. Sivasankar, A. Emeline, D. Bahnemann, R. V. Mangalaraja, S. Anandan  
“Sonochemical Synthesis of Porous NiTiO<sub>3</sub> Nanorods for Photocatalytic Degradation of Ceftiofur Sodium”  
Ultrason. Sonochem. 35 (Pt A) (2017) 342-350
334. M. Curti, C. B. Mendive, M. A. Grela, D. W. Bahnemann  
“Stopband Tuning of TiO<sub>2</sub> Inverse Opals for Slow Photon Absorption”  
Mater. Res. Bull. 91 (2017) 155-165
335. M. Fleisch, D. Bahnemann  
“Photokatalytisch aktiver Beton: Wie innovative Baustoffe einen Beitrag zum Abbau gefährlicher Luftschadstoffe leisten können”  
Beton- und Stahlbetonbau Spezial - Betonoberflächen (2017) 47-53

***Dr. Detlef Bahnemann: Refereed Publications***

336. R. Imani, R. Dillert, D. W. Bahnemann, M. Pazoki, T. Apih, V. Kononenko, N. Repar, V. Kralj-Iglic, G. Boschloo, D. Drobne, T. Edvinsson, A. Iglic  
“Multifunctional Gadolinium-Doped Mesoporous TiO<sub>2</sub> Nanobeads: Photoluminescence, Enhanced Spin Relaxation, and Reactive Oxygen Species Photogeneration, Beneficial for Cancer Diagnosis and Treatment”  
Small 13 (2017) 1700349
337. T. M. Khedr, S. M. El-Sheikh, A. Hakki, A. A. Ismail, W. A. Badawy, D. W. Bahnemann  
“Highly Active Non-Metals Doped Mixed-Phase TiO<sub>2</sub> for Photocatalytic Oxidation of Ibuprofen under Visible Light”  
J. Photochem. Photobiol., A: Chemistry 346 (2017) 530-540
338. H. Belhadj, S. Hamid, P. K. J. Robertson, D. W. Bahnemann  
“Mechanisms of Simultaneous Hydrogen Production and Formaldehyde Oxidation in H<sub>2</sub>O and D<sub>2</sub>O over Platinized TiO<sub>2</sub>”  
ACS Catal. 7 (2017) 4753-4758
339. S. J. Wolter, D. Geisler, J. Hensen, M. Köntges, S. Kajari-Schröder, D. W. Bahnemann, R. Brendel  
“Empirical Model Predicting the Layer Thickness and Porosity of p-Type Mesoporous Silicon”  
Semicond. Sci. Technol. 32 (2017) Article ID 045007 (10 pp)
340. U. Alam, M. Fleisch, I. Kretschmer, D. Bahnemann, M. Munee  
“One-step Hydrothermal Synthesis of Bi-TiO<sub>2</sub> Nanotube/Graphene Composites: An Efficient Photocatalyst for Spectacular Degradation of Organic Pollutants under Visible Light Irradiation”  
Appl. Catalysis B: Environ. 218 (2017) 758-769
341. A. Jochums, E. Friehs, F. Sambale, A. Lavrentieva, D. Bahnemann, T. Schepers  
“Revelation of Different Nanoparticle-Uptake Behavior in Two Standard Cell Lines NIH/3T3 and A549 by Flow Cytometry and Time-Lapse Imaging”  
Toxics 5 (2017) Article ID 5030015 (12 pp)
342. G. Yang, D. Chen, H. Ding, J. Feng, J. Z. Zhang, Y. Zhu, S. Hamid, D. W. Bahnemann  
“Well-Designed 3D ZnIn<sub>2</sub>S<sub>4</sub> Nanosheets/TiO<sub>2</sub> Nanobelts as direct Z-Scheme Photocatalysts for CO<sub>2</sub> Photoreduction into Renewable Hydrocarbon Fuel with High Efficiency”  
Appl. Catalysis B: Environ. 219 (2017) 611-618
343. D. Bahnemann  
“Catalysis Letters: Editorial”  
Catal. Lett. 147 (2017) 2473-2474
344. C. Haisch, J. Schneider, M. Fleisch, H. Gutzmann, T. Klassen, D. W. Bahnemann  
“Cold Sprayed WO<sub>3</sub> and TiO<sub>2</sub> Electrodes for Photoelectrochemical Water and Methanol Oxidation in Renewable Energy Applications”  
Dalton Trans. 46 (2017) 12811-12823
345. F. Sieland, J. Schneider, D. W. Bahnemann  
“Fractal Charge Carrier Kinetics in TiO<sub>2</sub>”  
J. Phys. Chem. C 121 (2017) 24282-24291

***Dr. Detlef Bahnemann: Refereed Publications***

346. B. O. Burek, A. Sutor, D. W. Bahnemann, J. Z. Bloh  
“Completely Integrated Wirelessly-Powered Photocatalyst-Coated Spheres as a Novel Means to Perform Heterogeneous Photocatalytic Reactions”  
Catal. Sci. Technol. 7 (2017) 4977-4983
347. N. A. Surib, L. C. Sim, K. H. Leong, A. Kuila, P. Saravanan, K. M. Lo, S. Ibrahim, D. Bahnemann, M. Jang  
“Ag<sup>+</sup>, Fe<sup>3+</sup> and Zn<sup>2+</sup>-Intercalated Cadmium(II)-Metal-Organic Frameworks for Enhanced Daylight Photocatalysis”  
RSC Adv. 7 (2017) 51272-51280
348. W. Raza, D. Bahnemann, M. Muneer  
“A Green Approach for Degradation of Organic Pollutants Using Rare Earth Metal Doped Bismuth Oxide”  
Catalysis Today 300 (2018) 89-98
349. U. Alam, A. Khan, D. Bahnemann, M. Muneer  
“Synthesis of Iron and Copper Cluster-Grafted Zinc Oxide Nanorod with Enhanced Visible-Light-Induced Photocatalytic Activity”  
J. Colloid Interface Sci. 509 (2018) 68-72
350. J. Lim, D.-Y. Kwak, F. Sieland, C. Kim, D. W. Bahnemann, W. Choi  
“Visible Light-Induced Catalytic Activation of Peroxymonosulfate Using Heterogeneous Surface Complexes of Amino Acids on TiO<sub>2</sub>”  
Appl. Catalysis B: Environ. 225 (2018) 406-414
351. A. M. Kamil, H. T. Mohammed, A. A. Balakit, F. H. Hussein, D. W. Bahnemann, G. A. El-Hiti  
“Synthesis, Characterization and Photocatalytic Activity of Carbon Nanotube/Titanium Dioxide Nanocomposites”  
Arab. J. Sci. Eng. 43 (2018) 199-210
352. V. (Ravi) Subramanian, D. Bahnemann, G. Madras  
“Preface”  
Catalysis Today 300 (2018) 1
353. A. Khan, U. Alam, W. Raza, D. Bahnemann, M. Muneer  
“One-Pot, Self-Assembled Hydrothermal Synthesis of 3D Flower-Like CuS/g-C<sub>3</sub>N<sub>4</sub> Composite with Enhanced Photocatalytic Activity under Visible-Light Irradiation”  
J. Phys. Chem. Solids 115 (2018) 59-68
354. H. Zangeneh, A. A. Zinatizadeh, M. Feyzi, S. Zinadini, D. W. Bahnemann  
“Application of a Novel Triple Metal-Nonmetal Doped TiO<sub>2</sub> (K-B-N-TiO<sub>2</sub>) for Photocatalytic Degradation of Linear Alkyl Benzene (LAB) Industrial Wastewater under Visible Light”  
Mater. Sci. Semicond. Process. 75 (2018) 193-205

***Dr. Detlef Bahnemann: Refereed Publications***

355. O. A. Lozhkina, V. I. Yudin, A. A. Murashkina, V. V. Shilovskikh, V. G. Davydov, R. Kevorkyants, A. V. Emeline, Y. V. Kapitonov, D. W. Bahnemann  
“Low Inhomogeneous Broadening of Excitonic Resonance in MAPbBr<sub>3</sub> Single Crystals”  
*J. Phys. Chem. Letters* 9 (2018) 302-305
356. U. Alam, S. Kumar, D. Bahnemann, J. Koch, C. Tegenkamp, M. Muneer  
“Harvesting Visible Light with MoO<sub>3</sub> Nanorods Modified by Fe(III) Nanoclusters for Effective Photocatalytic Degradation of Organic Pollutants”  
*Phys. Chem. Chem. Phys.* 20 (2018) 4538-4545
357. J. Nie, A. O. T. Patrocinio, S. Hamid, F. Sieland, J. Sann, S. Xia, D. W. Bahnemann, J. Schneider  
“New Insights into the Plasmonic Enhancement for Photocatalytic H<sub>2</sub> Production by Cu-TiO<sub>2</sub> upon Visible Light Illumination”  
*Phys. Chem. Chem. Phys.* 20 (2018) 5264-5273
358. I. Ivanova, T. A. Kandiel, Y.-J. Cho, W. Choi, D. Bahnemann  
“Mechanisms of Photocatalytic Molecular Hydrogen and Molecular Oxygen Evolution over La-Doped NaTaO<sub>3</sub> Particles: Effect of Different Cocatalysts and Their Specific Activity”  
*ACS Catal.* 8 (2018) 2313-2325
359. M. F. Atitar, A. Bouziani, R. Dillert, M. El Azzouzi, D. W. Bahnemann  
“Photocatalytic Degradation of the Herbicide Imazapyr: Do the Initial Degradation Rates Correlate with the Adsorption Kinetics and Isotherms?”  
*Catal. Sci. Technol.* 8 (2018) 985-995
360. H. Y. Hafeez, S. K. Lakhra, S. Bellamkonda, G. R. Rao, M. V. Shankar, D. W. Bahnemann, B. Neppolian  
“Construction of Ternary Hybrid Layered Reduced Graphene Oxide Supported g-C<sub>3</sub>N<sub>4</sub>-TiO<sub>2</sub> Nanocomposite and its Photocatalytic Hydrogen Production Activity”  
*Int. J. Hydrogen Energy* 43 (2018) 3892-3904
361. A. Khan, U. Alam, D. Ali, D. Bahnemann, M. Muneer  
“Surface Modification of Na-K<sub>2</sub>Ti<sub>6</sub>O<sub>13</sub> Photocatalyst with Cu(II)-Nanocluster for Efficient Visible-Light-Driven Photocatalytic Activity”  
*Mater. Lett.* 220 (2018) 50-53
362. L. I. Granone, F. Sieland, N. Zheng, R. Dillert, D. W. Bahnemann  
“Photocatalytic Conversion of Biomass into Valuable Products: A Meaningful Approach?”  
*Green Chem.* 20 (2018) 1169-1192
363. K. H. Leong, A. A. Aziz, L. C. Sim, P. Saravanan, M. Jang, D. Bahnemann  
“Mechanistic Insights into Plasmonic Photocatalysts in Utilizing Visible Light”  
*Beilstein J. Nanotechnol.* 9 (2018) 628-648
364. F. Sieland, J. Schneider, D. W. Bahnemann  
“Photocatalytic Activity and Charge Carrier Dynamics of TiO<sub>2</sub> Powders with a Binary Particle Size Distribution”  
*Phys. Chem. Chem. Phys.* 20 (2018) 8119-8132

***Dr. Detlef Bahnemann: Refereed Publications***

365. M. Fleisch, D. Bahnemann  
“Perowskit-Solarzellen: Neuartige Technologie mit großem Potenzial”  
Chem. Unserer Zeit 52 (2018) 120-124
366. A. Murashkina, A. A. Rudakova, V. K. Ryabchuk, K. V. Nikitin, R. V. Mikhailov, A. V. Emeline, D. W. Bahnemann  
“Influence of the Dopant Concentration on the Photoelectrochemical Behavior of Al-Doped TiO<sub>2</sub>”  
J. Phys. Chem. C 122 (2018) 7975-7981
367. U. Alam, A. Khan, D. Ali, D. Bahnemann, M. Munee  
“Comparative Photocatalytic Activity of Sol-Gel Derived Rare Earth Metal (La, Nd, Sm and Dy)-Doped ZnO Photocatalysts for Degradation of Dyes”  
RSC Adv. 8 (2018) 17582-17594
368. N. O. Balayeva, M. Fleisch, D. W. Bahnemann  
“Surface-Grafted WO<sub>3</sub>/TiO<sub>2</sub> Photocatalysts: Enhanced Visible-Light Activity towards Indoor Air Purification”  
Catalysis Today 313 (2018) 63-71
369. L. A. Faustino, B. L. Souza, B. N. Nunes, A.-T. Duong, F. Sieland, D. W. Bahnemann, A. O. T. Patrocínio  
“Photocatalytic CO<sub>2</sub> Reduction by Re(I) Polypyridyl Complexes Immobilized on Niobates Nanoscrolls”  
ACS Sustainable Chem. Eng. 6 (2018) 6073-6083
370. D. H. Taffa, R. Dillert, A. C. Ulpe, K. C. L. Bauerfeind, T. Bredow, D. W. Bahnemann, M. Wark  
“Photoelectrochemical and Theoretical Investigations of Spinel Type Ferrites (M<sub>x</sub>Fe<sub>3-x</sub>O<sub>4</sub>) for Water Splitting: A Mini-Review”  
J. Photon. Energy 7 (2017) 012009/1-012009/25
371. P. Pathak, M. Podzorski, D. Bahnemann, V. R. Subramanian  
“One-Pot Fabrication of High Coverage PbS Quantum Dot Nanocrystal-Sensitized Titania Nanotubes for Photoelectrochemical Processes”  
J. Phys. Chem. C 122 (2018) 13659-13668
372. J. Schneider, D. Bahnemann  
“Strong Transient Absorption of Trapped Holes in Anatase and Rutile TiO<sub>2</sub> at High Laser Intensities”  
J. Phys. Chem. C 122 (2018) 13979-13985
373. H. Zangeneh, A. A. Zinatizadeh, S. Zinadini, M. Feyzi, D. W. Bahnemann  
“A Novel Photocatalytic Self-Cleaning PES Nanofiltration Membrane Incorporating Triple Metal-Nonmetal Doped TiO<sub>2</sub> (K-B-N-TiO<sub>2</sub>) for Post Treatment of Biologically Treated Palm Oil Mill Effluent”  
React. Funct. Polym. 127 (2018) 139-152

***Dr. Detlef Bahnemann: Refereed Publications***

374. M. W. Kadi, A. A. Ismail, R. M. Mohamed, D. W. Bahnemann  
“Photodegradation of the Herbicide Imazapyr over Mesoporous  $\text{In}_2\text{O}_3\text{-TiO}_2$  Nanocomposites with Enhanced Photonic Efficiency”  
Sep. Purif. Technol. 205 (2018) 66-73
375. S. Hamid, R. Dillert, D. W. Bahnemann  
“Photocatalytic Reforming of Aqueous Acetic Acid into Molecular Hydrogen and Hydrocarbons over Co-Catalyst-Loaded  $\text{TiO}_2$ : Shifting the Product Distribution”  
J. Phys. Chem. C 122 (2018) 12792-12809
376. C. Haisch, C. Günemann, S. Melchers, M. Fleisch, J. Schneider, A. V. Emeline, D. W. Bahnemann  
“Irreversible Surface Changes upon n-Type Doping - A Photoelectrochemical Study on Rutile Single Crystals”  
Electrochim. Acta 280 (2018) 278-289
377. S. Melchers, Y. Alsalka, J. Schneider, D. W. Bahnemann  
“Studies on the Adsorption and Photocatalytic Degradation of an  $\text{Eu}^{\text{III}}(\text{TTFA})_3(\text{MePhTerpy})$  Complex on the  $\text{TiO}_2$  Surface”  
J. Photochem. Photobiol., A: Chemistry 364 (2018) 303-308
378. T. Harifi, M. Montazer, R. Dillert, D. W. Bahnemann  
“ $\text{TiO}_2/\text{Fe}_3\text{O}_4/\text{Ag}$  Nanophotocatalysts in Solar Fuel Production: New Approach to Using a Flexible Lightweight Sustainable Textile Fabric”  
J. Clean. Prod. 196 (2018) 688-697
379. C. Haisch, B. N. Nunes, J. Schneider, D. Bahnemann, A. O. T. Patrocínio  
“Transient Absorption Studies on Nanostructured Materials and Composites: Towards the Development of New Photocatalytic Systems”  
Z. Phys. Chem. 232 (2018) 1469-1493
380. Y. AlSalka, A. Hakki, J. Schneider, D. W. Bahnemann  
“Co-Catalyst-Free Photocatalytic Hydrogen Evolution on  $\text{TiO}_2$ : Synthesis of Optimized Photocatalyst through Statistical Material Science”  
Appl. Catal. B: Environ. 238 (2018) 422-433
381. U. Alam, A. Khan, D. Bahnemann, M. Muneer  
“Synthesis of Co doped  $\text{ZnWO}_4$  for Simultaneous Oxidation of RhB and Reduction of Cr(VI) under UV-Light Irradiation ”  
JECE 6 (2018) 4885-4898
382. J. Nie, J. Schneider, F. Sieland, L. Zhou, S. Xia, D. W. Bahnemann  
“New Insights into the Surface Plasmon Resonance (SPR) Driven Photocatalytic  $\text{H}_2$  Production of Au- $\text{TiO}_2$ ”  
RSC Adv. 8 (2018) 25881-25887

***Dr. Detlef Bahnemann: Refereed Publications***

383. A. R. Baggio, M. S. C. Santos, F. H. V. Souza, R. B. Nunes, P. E. N. Souza, S. N. Bao, A. O. T. Patrocínio, D. W. Bahnemann, L. P. Silva, M. J. A. Sales, L. G. Paterno  
“Quenching Effects of Graphene Oxides on the Fluorescence Emission and Reactive Oxygen Species Generation of Chloroaluminium Phthalocyanine”  
*J. Phys. Chem. A* 122 (2018) 6842-6851
384. R. M. Mohamed, A. A. Ismail, M. W. Kadi, D. W. Bahnemann  
“A Comparative Study on Mesoporous and Commercial TiO<sub>2</sub> Photocatalysts for Photodegradation of Organic Pollutants”  
*J. Photochem. Photobiol., A: Chemistry* 367 (2018) 66-73
385. M. Curti, A. Kirsch, L. I. Granone, F. Tarasi, G. L. Robledo, D. W. Bahnemann, M. M. Murshed, T. M. Gesing, C. B. Mendive  
“Visible-Light Photocatalysis with Mullite-Type Bi<sub>2</sub>(Al<sub>1-x</sub>Fe<sub>x</sub>)<sub>4</sub>O<sub>9</sub>: Striking the Balance between Bandgap Narrowing and Conduction Band Lowering”  
*ACS Catal.* 8 (2018) 8844-8855
386. T. Selvamani, S. Anandan, L. Granone, D. W. Bahnemann, M. Ashokkumar  
“Phase-Controlled Synthesis of Bismuth Oxide Polymorphs for Photocatalytic Applications”  
*Mater. Chem. Front.* 2 (2018) 1664-1673
387. H. Zangeneh, A. A. Zinatizadeh, A. Akbar, M. Feyzi, S. Zinadini, D. W. Bahnemann  
“Photomineralization of Recalcitrant Wastewaters by a Novel Magnetically Recyclable Boron Doped-TiO<sub>2</sub>-SiO<sub>2</sub> Cobalt Ferrite Nanocomposite as a Visible-Driven Heterogeneous Photocatalyst ”  
*JECE* 6 (2018) 6370-6381
388. P. K. J. Robertson, M. Wark, D. W. Bahnemann, J. Z. Bloh, R. Marschall  
“Preface to the Special Issue on Selected Papers from the Sixth International Conference on Semiconductor Photochemistry - SP-6”  
*J. Photochem. Photobiol., A: Chemistry* 366 (2018) 1-2
389. J. Nie, J. Schneider, F. Sieland, S. Xia, D. W. Bahnemann  
“The Role of Au Loading for Visible-Light Photocatalytic Activity of Au-TiO<sub>2</sub> (Anatase)”  
*J. Photochem. Photobiol., A: Chemistry* 366 (2018) 111-117
390. A. Arimi, L. Megatif, L. I. Granone, R. Dillert, D. W. Bahnemann  
“Visible-Light Photocatalytic Activity of Zinc Ferrites”  
*J. Photochem. Photobiol., A: Chemistry* 366 (2018) 118-126
391. S. Melchers, Y. Alsalka, J. Schneider, D. W. Bahnemann  
“Reprint of "Studies on the Adsorption and Photocatalytic Degradation of an EuIII(TTFA)<sub>3</sub>(MePhTerpy) Complex on the TiO<sub>2</sub> Surface””  
*J. Photochem. Photobiol., A: Chemistry* 366 (2018) 91-96
392. F. Sieland, N. A.-T. Duong, J. Schneider, D. W. Bahnemann  
“Influence of Inorganic Additives on the Photocatalytic Removal of Nitric Oxide and on the Charge Carrier Dynamics of TiO<sub>2</sub> Powders”  
*J. Photochem. Photobiol., A: Chemistry* 366 (2018) 142-151

***Dr. Detlef Bahnemann: Refereed Publications***

393. Y. Alsalka, A. Hakki, M. Fleisch, D. W. Bahnemann  
“Understanding the Degradation Pathways of Oxalic Acid in Different Photocatalytic Systems: Towards Simultaneous Photocatalytic Hydrogen Evolution”  
J. Photochem. Photobiol., A: Chemistry 366 (2018) 81-90
394. A. V. Rudakova, A. V. Emeline, K. M. Bulanin, L. V. Chistyakova, M. V. Maevskaia, D. W. Bahnemann  
“Self-Cleaning Properties of Zirconium Dioxide Thin Films”  
J. Photochem. Photobiol., A: Chemistry 367 (2018) 397-405
395. M. Jami, R. Dillert, Y. Suo, D. W. Bahnemann, M. Wark  
“Photoactivity of Titanium Dioxide Foams”  
Int. J. Photoenergy (2018) Article Number 5057814/1-5057814/9
396. S. Melchers, J. Schneider, A. V. Emeline, D. W. Bahnemann  
“Effect of H<sub>2</sub>O and O<sub>2</sub> on the Adsorption and Degradation of Acetaldehyde on Anatase Surfaces - An *in situ* ATR-FTIR Study”  
Catalysts 8 (2018) Article Number 417/1-417/12
397. L. I. Granone, A. C. Ulpe, L. Robben, S. Klimke, M. Jahns, F. Renz, T. M. Gesing, T. Bredow, R. Dillert, D. W. Bahnemann  
“Effect of the Degree of Inversion on Optical Properties of Spinel ZnFe<sub>2</sub>O<sub>4</sub>”  
Phys. Chem. Chem. Phys. 20 (2018) 28267-28278
398. S. Hamid, R. Dillert, J. Schneider, D. W. Bahnemann  
“Spectroscopic Analysis of Proton Exchange During the Photocatalytic Decomposition of Aqueous Acetic Acid: An Isotopic Study on the Product Distribution and Reaction Rate”  
Catal. Sci. Technol. 8 (2018) 5886-5899
399. H. Belhadj, Y. AlSalka, P. K. J. Robertson, D. Bahnemann  
“*In situ* ATR-FTIR Investigation of the Effects of H<sub>2</sub>O and D<sub>2</sub>O Adsorption on the TiO<sub>2</sub> Surface”  
ECS Transactions 75 (2017) 101-113
400. L. Megatif, R. Dillert, D. W. Bahnemann  
“A Method to Compare the Activities of Semiconductor Photocatalysts in Liquid-Solid Systems”  
ChemPhotoChem 2 (2018) 948-951
401. A. Freytag, C. Günemann, S. Naskar, S. Hamid, F. Lübkemann, D. Bahnemann, N. C. Bigall  
“Tailoring Composition and Material Distribution in Multicomponent Cryoaerogels for Application in Photocatalysis”  
ACS Appl. Nano Mater. 1 (2018) 6123-6130
402. N. I. Selivanov, A. A. Murashkina, R. Kevorkyants, A. V. Emeline, D. W. Bahnemann  
“Pyridinium Lead Tribromide and Pyridinium Lead Triiodide: Quasi-One-Dimensional Perovskites with an Optically Active Aromatic □-System”  
Dalton Trans. 47 (2018) 16313-16319

***Dr. Detlef Bahnemann: Refereed Publications***

403. W. K. Mohammad, R. M. Mohamed, A. A. Ismail, D. W. Bahnemann  
“Decoration of Mesoporous Graphie-like C<sub>3</sub>N<sub>4</sub> Nanosheets by NiS Nanoparticle-driven Visible Light for Hydrogen Evolution”  
Appl. Nanosci. 8 (2018) 1587-1596
404. S. Akel, R. Dillert, N. O. Balayeva, R. Boughaled, J. Koch, M. El Azzouzi, D. W. Bahnemann  
“Ag/Ag<sub>2</sub>O as a Co-Catalyst in TiO<sub>2</sub> Photocatalysis: Effect of the Co-Catalyst/Photocatalyst Mass Ratio”  
Catalysts 8 (2018) Article Number 647/1-647/19
405. H. M. El-Hosainy, S. M. El-Sheikh, A. A. Ismail, A. Hakki, R. Dillert, H. M. Killia, I. A. Ibrahim, D. W. Bahnemann  
“Highly Selective Photocatalytic Reduction of o-Dinitrobenzene to o-Phenylenediamine over Non-Metal-Doped TiO<sub>2</sub> under Simulated Solar Light Irradiation”  
Catalysts 8 (2018) Article Number 641/1-641/12
406. I. Kretschmer, A. M. Senn, J. M. Meichtry, G. Custo, E. B. Halac, R. Dillert, D. W. Bahnemann, M. I. Litter  
“Photocatalytic Reduction of Cr(VI) on Hematite Nanoparticles in the Presence of Oxalate and Citrate”  
Appl. Catalysis B: Environ. 242 (2019) 218-226
407. T. M. Khedr, S. M. El-Sheikh, A. A. Ismail, D. W. Bahnemann  
“Highly Efficient Solar Light-Assisted TiO<sub>2</sub> Nanocrystalline for Photodegradation of Ibuprofen Drug”  
Opt. Mater. 88 (2019) 117-127
408. T. M. Khedr, S. M. El-Sheikh, A. A. Ismail, D. W. Bahnemann  
“Photodegradation of 4-Aminoantipyrine over Nano-Titania Heterojunctions using Solar and LED Irradiation Sources”  
J. Env. Chem. Eng. 7 (2019) 102797
409. Y. AlSalka, L. I. Granone, W. Ramadan, A. Hakki, R. Dillert, D. W. Bahnemann, M. I. Litter  
“Iron-based Photocatalytic and Photoelectrocatalytic Nano-Structures: Facts, Perspectives and Expectations”  
Appl. Catalysis B: Environ. 244 (2019) 1065-1095
410. N. Karamat, M. Fahad Ehsan, M. Naeem Ashiq, S. Ijaz, M. Najam-ul-Haq, S. Hamid, D. W. Bahnemann  
“Synthesis, Characterization and Photocatalytic Activity of LaNdZr<sub>2</sub>O<sub>7</sub> Supported SnSe Nanocomposites for the Degradation of Foron Blue Dye”  
Appl. Surf. Sci. 463 (2019) 1019-1027
411. B. O. Burek, D. W. Bahnemann, J. Z. Bloh  
“Modeling and Optimization of the Photocatalytic Reduction of Molecular Oxygen to Hydrogenperoxide over Titanium Dioxide”  
ACS Catal. 9 (2019) 25-37

***Dr. Detlef Bahnemann: Refereed Publications***

412. C. GÜNNEMANN, C. HAISCH, M. FLEISCH, J. SCHNEIDER, A. V. EMELINE, D. W. BAHNEMANN  
“Insights into Different Photocatalytic Oxidation Activities of Anatase, Brookite, and Rutile Single-Crystal Facets”  
ACS Catal. 9 (2019) 1001-1012
413. H. ZANGENEH, A. A. ZINATIZADEH, S. ZINADINI, M. FEYZI, D. W. BAHNEMANN  
“Preparation and Characterization of a Novel Photocatalytic Self-Cleaning PES Nanofiltration Membrane by Embedding a Visible-Driven Photocatalyst Boron Doped-TiO<sub>2</sub>-SiO<sub>2</sub>/CoFe<sub>2</sub>O<sub>4</sub> Nanoparticles”  
Sep. Purif. Technol. 209 (2019) 764-775
414. A. TOLOSANA-MORANCHEL, J. A. CASAS, A. BAHAMONDE, L. PASCUAL, L. I. GRANONE, J. SCHNEIDER, R. DILLERT, D. W. BAHNEMANN  
“Nature and Photoreactivity of TiO<sub>2</sub>-rGO Nanocomposites in Aqueous Suspensions under UV-A Irradiation”  
Appl. Catalysis B: Environ. 241 (2019) 375-384
415. L. I. GRANONE, R. DILLERT, P. HEITJANS, D. W. BAHNEMANN  
“Effect of the Degree of Inversion on the Electrical Conductivity of Spinel ZnFe<sub>2</sub>O<sub>4”</sub>  
ChemistrySelect 4 (2019) 1232-1239
416. B. N. NUNES, C. HAISCH, A. V. EMELINE, D. W. BAHNEMANN, A. O. T. PATROCINIO  
“Photocatalytic Properties of Layer-by-Layer Thin Films of Hexaniobate Nanoscrolls”  
Catalysis Today 326 (2019) 60-67
417. W. RAMADAN, R. DILLERT, J. KOCH, C. TEGENKAMP, D. W. BAHNEMANN  
“Changes in the Solid-State Properties of Bismuth Iron Oxide During the Photocatalytic Reformation of Formic Acid”  
Catalysis Today 326 (2019) 22-29
418. H. ZANGENEH, A. A. ZINATIZADEH, S. ZINADINI, M. FEYZI, E. RAFIEE, D. W. BAHNEMANN  
“A Novel L-Histidine (C, N) Codoped-TiO<sub>2</sub>-CdS Nanocomposite for Efficient Visible Photo-degradation of Recalcitrant Compounds from Wastewater”  
J. Hazard. Mat. 369 (2019) 384-397
419. S. SAMBATHKUMAR, S. PIYADHARSHINI, M. FLEISCH, D. W. BAHNEMANN, G. GNANA KUMAR, S. SENTHILARASU, R. RENGANATHAN  
“Design and Synthesis of Imidazole-Triphenylamine Based Organic Materials for Dye Sensitized Solar Cells”  
Mater. Lett. 242 (2019) 28-31
420. H. H. MOHAMED, A. A. ALSANEA, N. A. ALOMAIR, S. AKHTAR, D. W. BAHNEMANN  
“ZnO@ Porous Graphite Nanocomposite from Waste for Superior Photocatalytic Activity”  
Environ. Sci. Pollut. Res. 26 (2019) 12288-12301

421. T. M. Khedr, S. M. El-Sheikh, A. A. Ismail, E. Kowalska, D. W. Bahnemann  
“Photodegradation of Microcystin-LR using Visible Light-Activated C/N-co-Modified Mesoporous TiO<sub>2</sub> Photocatalyst”  
Materials 12 (2019) 1027, pp. 1-18
422. F. Idrees, R. Dillert, D. Bahnemann, F. K. Butt, M. Tahir  
“In-Situ Synthesis of Nb<sub>2</sub>O<sub>5</sub>/g-C<sub>3</sub>N<sub>4</sub> Heterostructures as Highly Efficient Photocatalysts for Molecular H<sub>2</sub> Evolution under Solar Illumination”  
Catalysts 9 (2019) Article Number 169/1-169/16
423. A. V. Rudakova, A. V. Emeline, D. W. Bahnemann  
“Effect of the TiO<sub>2</sub>-ZnO Heterostructure on the Photoinduced Hydrophilic Conversion of TiO<sub>2</sub> and ZnO Surfaces”  
J. Phys. Chem. C 123 (2019) 8884-8891
424. R. Kevorkyants, A. V. Emeline, D. W. Bahnemann  
“Novel Hybrid Semiconducting Lead and Tin Halide Perovskites with Saturated Heterocyclic Cations (CH<sub>2</sub>)<sub>n</sub>PH<sub>2</sub><sup>+</sup> and (CH<sub>2</sub>)<sub>n</sub>SH<sup>+</sup>, (n=2-6): Ab Initio Study”  
Mater. Chem. Phys. 229 (2019) 387-391
425. T. Haisch, F. Kubannek, C. Haisch, D. W. Bahnemann, U. Krewer  
“Quantification of Formaldehyde Production during Alkaline Methanol Electrooxidation”  
Electrochim. Commun. 102 (2019) 57-62
426. L. I. Granone, K. Nikitin, A. Emeline, R. Dillert, D. W. Bahnemann  
“Effect of the Degree of Inversion on the Photoelectrochemical Activity of Spinel ZnFe<sub>2</sub>O<sub>4</sub>”  
Catalysts 9 (2019) Article Number 434/1-434/13
427. L. Wang, D. W. Bahnemann, L. Bian, G. Dong, J. Zhao, C. Wang  
“Two-Dimensional Layered Zinc Silicate Nanosheets with Excellent Photocatalytic Performance for Organic Pollutant Degradation and CO<sub>2</sub> Conversion”  
Angew. Chem. Int. Ed. 58 (2019) 8103-8108
428. J. Hou, T. Jiang, R. Wei, F. Idrees, D. Bahnemann  
“Ultrathin-Layer Structure of BiOI Microspheres Decorated on N-Doped Biochar with Efficient Photocatalytic Activity”  
Front. Chem. 7 (2019) Article Number 378
429. B. O. Burek, S. R. de Boer, F. Tiebes, W. Zhang, M. van Schie, S. Bormann, M. Alcalde, D. Holtmann, F. Hollmann, D. W. Bahnemann, J. Z. Bloh  
“Photoenzymatic Hydroxylation of Ethylbenzene Catalyzed by Unspecific Peroxygenase: Origin of Enzyme Inactivation and the Impact of Light Intensity and Temperature”  
ChemCatChem. 11 (2019) 3093-3100

***Dr. Detlef Bahnemann: Refereed Publications***

430. R. Kevorkyants, D. W. Bahnemann, A. V. Emeline  
“Modulating Optoelectronic Properties of Organo-Metal Halide Perovskites with Unsaturated Heterocyclic Cations via Ring Substitution”  
*J. Phys. Chem. Solids.* 135 (2019) 109078
431. A. A. Ahmed, T. A. Kandiel, T. Oekermann, C. Günemann, D. Bahnemann  
“Mechanistic Investigations of Photoelectrochemical Water and Methanol Oxidation on Well-Defined TiO<sub>2</sub> Anatase (101) and Rutile (110) Surfaces”  
*ACS Appl. Energy Mater.* 2 (2019) 5308-5318
432. J. H. Pan, Z. Jiang, D. W. Bahnemann  
“Advances in Photo(electro)catalysis for Environmental Applications and Chemical Synthesis: IPS-22 Overview”  
*Catalysis Today* 335 (2019) 1-2
433. R. Qian, H. Zong, J. Schneider, G. Zhou, T. Zhao, Y. Li, J. Yang, D. W. Bahnemann, J. H. Pan  
“Charge Carrier Trapping, Recombination and Transfer During TiO<sub>2</sub> Photocatalysis: An Overview”  
*Catalysis Today* 335 (2019) 78-90
434. B. O. Burek, J. Timm, D. W. Bahnemann, J. Z. Bloh  
“Kinetic Effects and Oxidation Pathways of Sacrificial Electron Donors on the Example of the Photocatalytic Reduction of Molecular Oxygen to Hydrogen Peroxide over Illuminated Titanium Dioxide”  
*Catalysis Today* 335 (2019) 354-364
435. L. Megatif, R. Dillert, D. W. Bahnemann  
“Reaction Rate Study of the Photocatalytic Degradation of Dichloroacetic Acid in a Black Body Reactor”  
*Catalysts* 9 (2019) Article Number 635/1-635/17
436. M. F. Atitar, A. A. Ismail, R. Dillert, D. W. Bahnemann  
“Photodegradation of Herbicide Imazapyr and Phenol over Mesoporous Bicrystalline Phases TiO<sub>2</sub>: A Kinetic Study”  
*Catalysts* 9 (2019) Article Number 640/1-640/9
437. A. Arimi, R. Dillert, G. Dräger, D. W. Bahnemann  
“Light-Induced Reactions of Chlorpromazine in the Presence of a Heterogeneous Photocatalyst: Formation of a Long-Lasting Sulfoxide”  
*Catalysts* 9 (2019) Article Number 627/1-627/18
438. B. N. Nunes, A. O. T. Patrocínio, D. W. Bahnemann  
“Influence of the Preparation Conditions on the Morphology and Photocatalytic Performance Pt-Modified Hexaniobate Composites”  
*J. Phys.: Condens. Matter* 31 (2019) 394001 (11p)

***Dr. Detlef Bahnemann: Refereed Publications***

439. H. Zangeneh, A. A. Zinatizadeh, S. Zinadini, M. Feyzi, D. W. Bahnemann  
“Preparation Ultrafine L-Methionine (C, N, S Triple Doped)-TiO<sub>2</sub>-ZnO Nanoparticles and their Photocatalytic Performance for Fouling Alleviation in PES Nanocomposite Membrane”  
Composites Part B 176 (2019) 107158
440. M. Curti, M. M. Murshed, T. Bredow, D. W. Bahnemann, T. M. Gesing, C. B. Mendive  
“Elastic, Phononic, Magnetic and Electronic Properties of Quasi-One-Dimensional PbFeBO<sub>4</sub>”  
J. Mater. Sci. 54 (2019) 13579-13593
441. A. Arimi, C. Günemann, M. Curti, D. W. Bahnemann  
“Regarding the Nature of Charge Carriers Formed by UV or Visible Light Excitation of Carbon-Modified Titanium Dioxide”  
Catalysts 9 (2019) Article Number 697/1-697/16
442. L. F. Paula, M. Hofer, V. P. B. Lacerda, D. W. Bahnemann, A. O. T. Patrocínio  
“Unraveling the Photocatalytic Properties of TiO<sub>2</sub>/WO<sub>3</sub> Mixed Oxides”  
Photochem. Photobiol. Sci. 18 (2019) 2469-2483
443. M. Darbandi, B. Shaabani, J. Schneider, D. Bahnemann, P. Gholami, A. Khataee, P. Yardani, M. G. Hosseini  
“TiO<sub>2</sub> Nanoparticles with Superior Hydrogen Evolution and Pollutant Degradation Performance”  
Int. J. Hydrogen Energy 44 (2019) 24162-24173
444. T. M. Khedr, S. M. El-Sheikh, H. M. Abdeldayem, A. A. Ismail, E. Kowalska, D. W. Bahnemann  
“A Comparative Study of Microcystin-LR Degradation by UV-A, Solar and Visible Light Irradiation Using Bare and C/N/S-Modified Titania”  
Catalysts 9 (2019) Article Number 877/1-877/16
445. A. A. Murashkina, T. V. Bakiev, Y. M. Artemev, A. V. Rudakova, A. V. Emeline, D. W. Bahnemann  
“Photoelectrochemical Behavior of the Ternary Heterostructured Systems CdS/WO<sub>3</sub>/TiO<sub>2</sub>”  
Catalysts 9 (2019) Article Number 999/1-999/14
446. C. Günemann, M. Curti, J. G. Eckert, J. Schneider, D. W. Bahnemann  
“Tailoring the Photoelectrochemical Activity of TiO<sub>2</sub> Electrodes by Multilayer Screen-Printing”  
ChemCatChem. 11 (2019) 6439-6450
447. H. H. Mohamed, N. A. Alomair, D. W. Bahnemann  
“Kinetic and Mechanistic Features on the Reaction of Stored TiO<sub>2</sub> Electrons with Hg(II), Pb(II) and Ni(II) in Aqueous Suspension”  
Arab. J. Chem. 12 (2019) 5134-5141
448. W. Raza, M. M. Haque, M. Muneer, D. Bahnemann  
“Synthesis of Visible Light Driven TiO<sub>2</sub> Coated Carbon Nanospheres for Degradation of Dyes”  
Arab. J. Chem. 12 (2019) 3534-3545

***Dr. Detlef Bahnemann: Refereed Publications***

449. K. M. Bulanin, D. W. Bahnemann, A. V. Rudakova  
“Transmission IR Cell for Atmosphere-Controlled Studies of Photoprocesses on Powdered High Surface Area Materials”  
Rev. Sci. Instrum. 90 (2019) Article 105113 (8p)
450. N. O. Balayeva, N. Zheng, R. Dillert, D. W. Bahnemann  
“Visible-Light-Mediated Photocatalytic Aerobic Dehydrogenation of N-Heterocycles by Surface-Grafted TiO<sub>2</sub> and 4-Amino-TEMPO”  
ACS Catal. 9 (2019) 10694-10704
451. R. M. Mohamed, D. W. Bahnemann, A. S. Basaleh, R. H. Gadah  
“Comparison Between Ag@TiO<sub>2</sub> Core-Shell and Yolk-Shell Structures for Degradation of Gaseous Toluene Beneath Visible Light”  
Nanosci. Nanotechnol. Lett. 11 (2019) 1-13
452. A. Tolosana-Moranchel, M. Faraldo, A. Bahamonde, L. Pascual, F. Sieland, J. Schneider, R. Dillert, D. W. Bahnemann  
“TiO<sub>2</sub>-Reduced Graphene Oxide Nanocomposites: Microsecond Charge Carrier Kinetics”  
J. Photochem. Photobiol., A: Chemistry 386 (2020) Article 112112 (11p)
453. C. Günemann, M. Curti, J. Schneider, D. W. Bahnemann  
“Dynamics of Photoinduced Bulk and Surface Reactions Involving Semiconductors by Time Resolved Spectroscopy Techniques (2015-2018)”  
Photochemistry 47 (2020) 122-158
454. S. Melchers, J. Schneider, D. W. Bahnemann  
“Isotopic Studies on the Degradation of Acetaldehyde on Anatase Surfaces”  
Catal. Today 340 (2020) 318-322
455. R. Kevorkyants, A. V. Emeline, D. W. Bahnemann  
“Hybrid Lead Triiodide Perovskites with Unsaturated Heterocyclic Cations Containing N, O, and S Atoms: Ab Initio Study”  
J. Solid State Chem. 282 (2020) Article 121082 (6p)
456. B.-M. Bresolin, N. O. Balayeva, L. I. Granone, R. Dillert, D. W. Bahnemann, M. Sillanpää  
“Anchoring Lead-Free Halide Cs<sub>3</sub>Bi<sub>2</sub>I<sub>9</sub> Perovskite on UV100-TiO<sub>2</sub> for Enhanced Photocatalytic Performance”  
Sol. Energy Mater. Sol. Cells 204 (2020) Article 110214 (11p)
457. S. Akel, R. Boughaled, R. Dillert, M. El Azzouzi, D. W. Bahnemann  
“UV/Vis Light Induced Degradation of Oxytetracycline Hydrochloride Mediated by Co-TiO<sub>2</sub> Nanoparticles”  
Molecules 25 (2020) Article Number 249/1-249/17
458. M. W. Kadi, R. M. Mohamed, A. A. Ismail, D. W. Bahnemann  
“H<sub>2</sub> Production using CuS/g-C<sub>3</sub>N<sub>4</sub> Nanocomposites under Visible Light”  
Appl. Nanosci. 10 (2020) 223-232

***Dr. Detlef Bahnemann: Refereed Publications***

459. B. N. Nunes, O. F. Lopes, A. O. T. Patrocínio, D. W. Bahnemann  
“Recent Advances in Niobium-Based Materials for Photocatalytic Solar Fuel Production”  
Catalysts 10 (2020) Article Number 126/1-126/31
460. F. Ichihara, F. Sieland, H. Pang, D. Philo, A.-T. Duong, K. Chang, T. Kako, D. W. Bahnemann, J. Ye  
“Photogenerated Charge Carriers Dynamics on La- and/or Cr-Doped SrTiO<sub>3</sub> Nanoparticles Studied by Transient Absorption Spectroscopy”  
J. Phys. Chem. C 124 (2020) 1292-1302
461. Y. Ding, I. S. Yang, Z. Li, X. Xia, W. I. Lee, S. Dai, D. W. Bahnemann, J. H. Pan  
“Nanoporous TiO<sub>2</sub> Spheres with Tailored Textural Properties: Controllable Synthesis, Formation Mechanism, and Photochemical Applications”  
Prog. Mater. Sci. 109 (2020) 100620, (59p)
462. T. H. Jeon, D. Monllor-Satoca, G.-H. Moon, W. Kim, H.-I. Kim, D. W. Bahnemann, H. Park, W. Choi  
“Ag(I) Ions Working as a Hole-Transfer Mediator in Photoelectrocatalytic Water Oxidation on WO<sub>3</sub> Film”  
Nat. Commun. 11 (2020) 967 (9p)
463. L. M. Ombaka, R. Dillert, L. Robben, D. W. Bahnemann  
“Evaluating Carbon Dots as Electron Mediators in Photochemical and Photocatalytic Processes of NiFe<sub>2</sub>O<sub>3</sub>”  
APL Mater. 8 (2020) 031105 (13p)
464. N. I. Selivanov, Y. A. Rozhkova, R. Kevorkyants, A. V. Emeline, D. W. Bahnemann  
“The Effect of Organic Cations on the Electronic, Optical and Luminescence Properties of 1D Piperidinium, Pyridinium, and 3-Hydroxypyridinium Lead Trihalides”  
Dalton Trans. 49 (2020) 4390-4403
465. R. M. Mohamed, D. W. Bahnemann, A. S. Basaleh, R. H. Qadah  
“Photo-catalytic Destruction of Acetaldehyde using Cobalt, Copper C-Doped Titania Dioxide Nanoparticles beneath Visible Light”  
Appl. Nanosci. 10 (2020) 931-939
466. B.-M. Bresolin, C. Günemann, D. W. Bahnemann, M. Sillanpää  
“Pb-Free Cs<sub>3</sub>Bi<sub>2</sub>I<sub>9</sub> Perovskite as a Visible-Light-Active Photocatalyst for Organic Pollutant Degradation”  
Nanomaterials 10 (2020) 763 (13p)
467. N. O. Balayeva, Z. Mamiyev, R. Dillert, N. Zheng, D. W. Bahnemann  
“Rh/TiO<sub>2</sub>-Photocatalyzed Acceptorless Dehydrogenation of N-Heterocycles upon Visible-Light Illumination”  
ACS Catal. 10 (2020) 5542-5553
468. A. C. Ulpe, K. C. L. Bauerfeind, L. I. Granone, A. Arimi, L. Megatif, R. Dillert, S. Warfsmann, D. H. Taffa, M. Wark, D. W. Bahnemann, T. Bredow  
“Photoelectrochemistry of Ferrites: Theoretical Predictions vs. Experimental Results”  
Z. Phys. Chem. 234 (2020) 719-776

469. B.-M. Bresolin, Y. Park, D. W. Bahnemann  
“Recent Progresses on Metal Halide Perovskite-Based Materials as Potential Photocatalysts”  
Catalysts 10 (2020) Article Number 709/1-709/34
470. O. Al-Madanat, Y. AlSalka, M. Curti, R. Dillert, D. W. Bahnemann  
“Mechanistic Insights into Hydrogen Evolution by Photocatalytic Reforming of Naphthalene”  
ACS Catal. 10 (2020) 7398-7412
471. R. Kevorkyants, D. W. Bahnemann, A. V. Emeline  
“Novel 3D Photoactive Direct Bandgap Perovskites CsBiPbX<sub>6</sub>: Ab Initio Structure and Electronic Properties”  
Comput. Mater. Sci. 183 (2020) 109819 (5p)
472. S.-T. Xiao, S.-M. Wu, Y. Dong, J.-W. Liu, I.-Y. Wang, L. Wu, Y.-X. Zhang, G. Tian, C. Janiak, M. Shalom, Y.-T. Wang, Y.-Z. Li, R.-K. Jia, D. W. Bahnemann, X.-Y. Yang  
“Rich Surface Hydroxyl Design for Nanostructured TiO<sub>2</sub> and its Hole-Trapping Effect”  
Chem. Eng. J. 400 (2020) 125909 (8p)
473. B.-M. Bresolin, P. Sgarbossa, D. W. Bahnemann, M. Sillanpää  
“Cs<sub>3</sub>Bi<sub>2</sub>I<sub>9</sub>/g-C<sub>3</sub>N<sub>4</sub> as a New Binary Photocatalyst for Efficient Visible-Light Photocatalytic Processes”  
Sep. Purif. Technol. 251 (2020) 117320 (13p)
474. L. M. Ombaka, M. Curti, J. D. McGettrick, M. L. Davies, D. W. Bahnemann  
“Nitrogen/Carbon-Coated Zero-Valent Copper as Highly Efficient Co-Catalysts for TiO<sub>2</sub> Applied in Photocatalytic and Photoelectrocatalytic Hydrogen Production”  
ACS Appl. Mater. Interfaces 12 (2020) 30365-30380
475. M. W. Kadi, R. M. Mohamed, A. A. Ismail, D. W. Bahnemann  
“Decoration of g-C<sub>3</sub>N<sub>4</sub> Nanosheets by Mesoporous CoFe<sub>2</sub>O<sub>4</sub> Nanoparticles for Promoting Visible-Light Photocatalytic Hg(II) Reduction”  
Colloids and Surfaces A: Physicochem. Eng. Aspects 603 (2020) 125206 (10p)
476. M. W. Kadi, R. M. Mohamed, A. A. Ismail, D. W. Bahnemann  
“Soft and Hard Templates Assisted Synthesis Mesoporous CuO/g-C<sub>3</sub>N<sub>4</sub> Heterostructures for Highly Enhanced and Accelerated Hg(II) Photoreduction under Visible Light”  
J. Colloid Interface Sci. 580 (2020) 223-233
477. Y. AlSalka, O. Al-Madanat, M. Curti, A. Hakki, D. W. Bahnemann  
“Photocatalytic H<sub>2</sub> Evolution from Oxalic Acid: Effect of Cocatalysts and Carbon Dioxide Radical Anion on the Surface Charge Transfer Mechanisms”  
ACS Appl. Energy Mater. 3 (2020) 6678-6691
478. R. M. Mohamed, D. W. Bahnemann, A. S. Basaleh, R. H. Gadah  
“Superior Vis Light Photo-Catalytic Efficiency for Remediation of Gaseous Toluene using FeWO<sub>4</sub>/g-C<sub>3</sub>N<sub>4</sub> Direct Z System”  
Desalin. Water Treat. 182 (2020) 332-341

***Dr. Detlef Bahnemann: Refereed Publications***

479. L. Megatif, R. Dillert, D. W. Bahnemann  
“Determination of the Quantum Yield of a Heterogeneous Photocatalytic Reaction Employing a Black Body Photoreactor”  
Catal. Today 355C (2020) 698-703
480. M. W. Kadi, R. M. Mohamed, A. A. Ismail, D. W. Bahnemann  
“Performance of Mesoporous  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>/g-C<sub>3</sub>N<sub>4</sub> Heterojunction for Photoreduction of Hg(II) under Visible Light Illumination”  
Ceram. Int. 46 (2020) 23098-23106
481. A. I. Kokorin, T. V. Sviridova, E. A. Konstantinova, D. V. Sviridov, D. W. Bahnemann  
“Dynamics of Photogenerated Charge Carriers in TiO<sub>2</sub>/MoO<sub>3</sub>, TiO<sub>2</sub>/WO<sub>3</sub> and TiO<sub>2</sub>/V<sub>2</sub>O<sub>5</sub> Photocatalysts with Mosaic Structure”  
Catalysts 10 (2020) Article Number 1022/1-1022/10
482. V. Khanal, E. Soto-Harrison, D. Chandra, N. O. Balayeva, D. W. Bahnemann, V. (Ravi) Subramanian  
“A Selective Synthesis of TaON Nanoparticles and Their Comparative Study of Photoelectrochemical Properties”  
Catalysts 10 (2020) Article Number 1128/1-1128/17
483. B. Rhimi, C. Wang, D. W. Bahnemann  
“Latest Progress in g-C<sub>3</sub>N<sub>4</sub> Based Heterojunctions for Hydrogen Production via Photocatalytic Water Splitting: A Mini Review”  
J. Phys. Energy 2 (2020) Article Number 042003/1-042003/16
484. A. V. Emeline, R. V. Mikhaylov, P. E. Lavrik, A. V. Kozhevina, K. M. Bulanin, P. D. Murzin, N. I. Glazkova, V. N. Kuznetsov, A. V. Rudakova, M. V. Mayevskaia, Yu. M. Artemiev, T. V. Bakiev, V. K. Ryabchuk, A. V. Mayeuski, A. S. Bardakova, Yu. V. Kapitonov, N. I. Selivanov, I. S. Komarova, R. Kevorkyants, D. W. Bahnemann  
“The Study of Photoactive Materials”  
Rev. J. Chem. 10 (2020) 73-111
485. A. A. Ismail, L. A. Al-Hajji, M. Alsaidi, B. N. Nunes, D. W. Bahnemann  
“Pyrolysis Conversion of Metal Organic Frameworks to Form Uniform Codoped C/N-Titania Photocatalyst for H<sub>2</sub> Production Through Simulated Solar Light”  
J. Photochem. Photobiol., A: Chemistry 407 (2021) Article 113037 (8p)
486. O. Al-Madanat, Y. AlSalka, R. Dillert, D. W. Bahnemann  
“Photocatalytic H<sub>2</sub> Production from Naphthalene by Various TiO<sub>2</sub> Photocatalysts: Impact of Pt Loading and Formation of Intermediates”  
Catalysts 11 (2021) Article Number 107/1-107/20
487. A. V. Emeline, A. V. Rudakova, R. V. Mikhaylov, K. M. Bulanin, D. W. Bahnemann  
“Photoactive Heterostructures: How They Are Made and Explored”  
Catalysts 11 (2021) Article Number 294/1-294/31

***Dr. Detlef Bahnemann: Refereed Publications***

488. O. Al-Madanat, Y. AlSalka, W. Ramadan, D. W. Bahnemann  
“TiO<sub>2</sub> Photocatalysis for the Transformation of Aromatic Water Pollutants into Fuels”  
Catalysts 11 (2021) Article Number 317/1-317/44
489. M. Shi, B. Rhimi, K. Zhang, J. Xu, D. W. Bahnemann, C. Wang  
“Visible Light-Driven Novel Bi<sub>2</sub>Ti<sub>2</sub>O<sub>7</sub>/CaTiO<sub>3</sub> Composite Photocatalyst with Enhanced Photocatalytic Activity Towards NO Removal”  
Chemosphere 275 (2021) Article Number 130083 (11p)
490. A. V. Mayeuski, D. Yu Poloneeva, E. A. Toshcheva, A. V. Bardakova, A. V. Shuruhina, A. V. Emeline, D. W. Bahnemann  
“UV-Induced Alteration of Luminescence Chromaticity of Ln-Based MOF-76”  
J. Lumin. 235 (2021) Article Number 117970 (6p)
491. S. Akel, R. Dillert, D. W. Bahnemann  
“Photocatalytic Hydrogen Evolution Over Pt/Co-TiO<sub>2</sub> Photocatalysts”  
J. Photocat. 1 (2021) 35-48
492. V. Khanal, N. O. Balayeva, C. Günemann, Z. Mamiyev, R. Dillert, V. (Ravi) Subramanian, D. W. Bahnemann  
“Photocatalytic NO<sub>x</sub> Removal using Tantalum Oxide Nanoparticles: A Benign Pathway”  
Appl. Catalysis B: Environ. 291 (2021) Article Number 119974 (9p)
493. B. N. Nunes, D. W. Bahnemann, A. O. T. Patrocínio  
“Photoinduced H<sub>2</sub> Evolution by Hexaniobate Sheets Grafted with Metal Ions: The Fate of Photogenerated Carriers”  
ACS Appl. Energy Mater. 4 (2021) 3681-3692
494. P. D. Murzin, A. A. Murashkina, A. V. Emeline, D. W. Bahnemann  
“Effect of Sc<sup>3+</sup>/V<sup>5+</sup> Co-Doping on Photocatalytic Activity of TiO<sub>2</sub>”  
Top. Catal. (2021) DOI: 10.1007/s11244-020-01292-1
495. C. Günemann, M. Curti, F. Sieland, D. W. Bahnemann  
“Charge Carriers in Commercial Photocatalysts: Fractal Kinetics and Effect of “Inert” Additives”  
Top. Catal. (2021) DOI: 10.1007/s11244-020-01282-3
496. A. V. Rudakova, A. V. Emeline, A. I. Romanychev, D. W. Bahnemann  
“Photoinduced Hydrophilic Behavior of TiO<sub>2</sub> Thin Film on Si Substrate”  
J. Alloys Compd. 872 (2021) Article Number 159746 (8p)
497. C. Günemann, D. W. Bahnemann, P. K. J. Robertson  
“Isotope Effects in Photocatalysis: An Underexplored Issue”  
ACS Omega 6 (2021) 111113-111121

***Dr. Detlef Bahnemann: Refereed Publications***

498. A. Kuila, P. Saravanan, D. Bahnemann, C. Wang  
“Novel Ag Decorated, BiOCl Surface Doped AgVO<sub>3</sub> Nanobelt Ternary Composite with Z-Scheme Homojunction-Heterojunction Interface for High Prolific Photo Switching, Quantum Efficiency and Hole Mediated Photocatalysis”  
Appl. Catalysis B: Environ. 293 (2021) Article Number 120224 (16p)
499. D. W. Bahnemann, A. V. Emeline, A. V. Rudakova, K. M. Bulanin, R. V. Mikhaylov  
“Editorial: Special Issue on Photocatalytic Nanocomposite Materials (PNMs)”  
Catalysts 11 (2021) Article Number 587/1-587/6