

Subject Index of Volume 180

Acid–base properties

Acid–base properties of 3,5-dimethyl-1,7-diphenyl derivative of bis-pyrazolopyridine in non-aqueous solutions, 80

Aerosol particles discrimination

Discriminating bacteria from other atmospheric particles using femtosecond and molecular dynamics, 300

Alachlor degradation

Photo-Fenton degradation of alachlor in the presence of citrate solution, 38

Anisole

Recombination rate of photogenerated charges versus surface area: Opposing effects of TiO₂ sintering temperature on photocatalytic removal of phenol, anisole, and pyridine in water, 130

Annular reactor

A kinetic description of monomolecular photochemical reaction with the use of polychromatic irradiation, 28

Anodic alumina membrane

TiO₂ nanorods as additive to TiO₂ film for improvement in the performance of dye-sensitized solar cells, 184

Aprotic solvents

Solvatochromic effects on the fluorescence and triplet–triplet absorption of phenosafranin in protic and aprotic solvents, 143

1-Aza-1,2,4,6-cycloheptatetraene

Infrared spectrum and UV-induced photochemistry of matrix-isolated 5-methoxy-1-phenyl-1*H*-tetrazole, 175

Azo fuchsine

Investigation on degradation of dyestuff wastewater using visible light in the presence of a novel nano TiO₂ catalyst doped with upconversion luminescence agent, 189

B3LYP

Photophysics of dibenzodioxocins, 165

Benzoic acid

Photocatalytic degradation of formic and benzoic acids and hydrogen peroxide evolution in TiO₂ and ZnO water suspensions, 15

Bifunctional polymerizable stabilizers

Synthesis of novel bifunctional polymer stabilizers—A combination of HALS and UV absorber, 205

Biological intrinsic fluorophore

Discriminating bacteria from other atmospheric particles using femtosecond and molecular dynamics, 300

Bio-molecules ultrafast spectroscopy

Discriminating bacteria from other atmospheric particles using femtosecond and molecular dynamics, 300

Bis-pyrazolopyridines

Acid–base properties of 3,5-dimethyl-1,7-diphenyl derivative of bis-pyrazolopyridine in non-aqueous solutions, 80

β-Carotene

Singlet versus triplet dynamics of β-carotene studied by quantum control spectroscopy, 314

Charge transfer

Electron transfer, charge stabilization and charge recombination in naphthalenediimide-tryptophan immobilized on silica particles, 218

Charge transport

Novel hydrazone moieties containing polymers for optoelectronics, 23

Charge-transfer

Charge-transfer as a mechanism for controlling molecular fragmentation, 277

Citrate

Photo-Fenton degradation of alachlor in the presence of citrate solution, 38

α-Cleavage

New photocleavable structures III: Photochemistry and photophysics of pyridinoyl and benzoyl-based photoinitiators, 109

Coherent control

Optimal control methods applied on the ionization processes of alkali dimers, 256

Classical aspects emerging from local control of energy and particle transfer in molecules, 271

Charge-transfer as a mechanism for controlling molecular fragmentation, 277

Coherent control improves biomedical imaging with ultrashort shaped pulses, 307

Singlet versus triplet dynamics of β-carotene studied by quantum control spectroscopy, 314

Coherent spectroscopy

Singlet versus triplet dynamics of β-carotene studied by quantum control spectroscopy, 314

Coherent spin control

Model simulation of coherent laser control of the ultrafast spin-flip dynamics of matrix-isolated Cl₂, 262

Conductivity

Physico-chemical behaviour of V(V) in a concentrated phosphoric acid, 213

Conformational transition

Time-resolved fluorescence anisotropy measurements in the study of poly(*N*-isopropyl acrylamide)-based systems, 1

Control of reactive processes

Control strategies for reactive processes involving vibrationally hot product states, 282

Copolymerization

Synthesis of novel bifunctional polymer stabilizers—A combination of HALS and UV absorber, 205

Cure monitoring

Fluorescence monitoring of photoinitiated polymerization reactions. Synthesis, photochemical study and behaviour as fluorescent probes of new derivatives of 4'-dimethylaminostyryldiazines, 118

Degradation mechanism

Photocatalytic degradation of DNOC in aqueous TiO₂ dispersions. Investigation of the initial reaction steps, 157

DFT(B3LYP)/6-311++G(d,p) calculations

Infrared spectrum and UV-induced photochemistry of matrix-isolated 5-methoxy-1-phenyl-1*H*-tetrazole, 175

Dibenzodioxocins

Photophysics of dibenzodioxocins, 165

Dimers

Optimal control methods applied on the ionization processes of alkali dimers, 256

- Diterpenes
Photochemical reactivity of 6 α -hydroxy-7-keto neoclerodane diterpenoids, 54
- DNOC
Photocatalytic degradation of DNOC in aqueous TiO₂ dispersions. Investigation of the initial reaction steps, 157
- Doping
Fe³⁺-TiO₂ photocatalysts prepared by combining sol-gel method with hydrothermal treatment and their characterization, 196
- Dressed states
Ultrafast strong field quantum control on K₂ dimers, 248
- Dye-sensitized solar cell
TiO₂ nanorods as additive to TiO₂ film for improvement in the performance of dye-sensitized solar cells, 184
- Electron transfer
The photoluminescence of rhodamine B encapsulated in mesoporous Si-MCM-48, Ce-MCM-48, Fe-MCM-48 and Cr-MCM-48 molecular sieves, 59
Electron transfer and intersystem crossing processes in new dyes based on 1*H*-pyrazolo[3,4-*b*]quinoxaline. Effect of temperature and solvent polarity on the CT fluorescence, 88
- Energy transfer
Quantum yield enhancement of photoluminescent polycyanate resin by blending with 1-pyrenecarboxylic acid, 136
- Epoxides
Novel hydrazone moieties containing polymers for optoelectronics, 23
- Excited state intramolecular proton transfer
Unusual conformational effects in proton transfer kinetics of an excited photochromic Schiff base, 101
- Exciton
Laser pulse control of exciton dynamics in the FMO complex: Polarization shaping versus effects of structural and energetic disorder, 322
- Exciton control
Laser pulse control of exciton dynamics in the FMO complex: Polarization shaping versus effects of structural and energetic disorder, 322
- Fe³⁺
Fe³⁺-TiO₂ photocatalysts prepared by combining sol-gel method with hydrothermal treatment and their characterization, 196
- Femtosecond
Coherent control improves biomedical imaging with ultrashort shaped pulses, 307
- Femtosecond fluorescence depletion
Discriminating bacteria from other atmospheric particles using femtosecond molecular dynamics, 300
- Femtosecond laser pulses
Squeezing the ground vibrational state of diatomic molecules, 241
- Femtosecond spectroscopy
Selective excitation of molecular modes in a mixture by optimal control of electronically nonresonant femtosecond four-wave mixing spectroscopy, 289
- Femtosecond transient absorption
Singlet versus triplet dynamics of β -carotene studied by quantum control spectroscopy, 314
- Film quenching
Synthesis, properties and fluorescence quenching in a polycation based on polyetherurethane with pyrene fluorophore, 150
- Flexible target definition
Control strategies for reactive processes involving vibrationally hot product states, 282
- Fluorescence
Time-resolved fluorescence anisotropy measurements in the study of poly(*N*-isopropyl acrylamide)-based systems, 1
The photoluminescence of rhodamine B encapsulated in mesoporous Si-MCM-48, Ce-MCM-48, Fe-MCM-48 and Cr-MCM-48 molecular sieves, 59
Acid-base properties of 3,5-dimethyl-1,7-diphenyl derivative of bis-pyrazolopyridine in non-aqueous solutions, 80
Electron transfer and intersystem crossing processes in new dyes based on 1*H*-pyrazolo[3,4-*b*]quinoxaline. Effect of temperature and solvent polarity on the CT fluorescence, 88
Solvatochromic effects on the fluorescence and triplet-triplet absorption of phenosafranin in protic and aprotic solvents, 143
Synthesis, properties and fluorescence quenching in a polycation based on polyetherurethane with pyrene fluorophore, 150
- Fluorescence enhancement
A polyamidoamine dendrimer with peripheral 1,8-naphthalimide groups capable of acting as a PET fluorescent sensor for the rare earth cations, 69
- Fluorescent probes
Fluorescence monitoring of photoinitiated polymerization reactions. Synthesis, photochemical study and behaviour as fluorescent probes of new derivatives of 4'-dimethylaminostyryldiazines, 118
- FMO
Laser pulse control of exciton dynamics in the FMO complex: Polarization shaping versus effects of structural and energetic disorder, 322
- Formic acid
Photocatalytic degradation of formic and benzoic acids and hydrogen peroxide evolution in TiO₂ and ZnO water suspensions, 15
- Graft copolymers
Time-resolved fluorescence anisotropy measurements in the study of poly(*N*-isopropyl acrylamide)-based systems, 1
- HBD solvents
Solvatochromic effects on the fluorescence and triplet-triplet absorption of phenosafranin in protic and aprotic solvents, 143
- Heavy atom effect
Electron transfer and intersystem crossing processes in new dyes based on 1*H*-pyrazolo[3,4-*b*]quinoxaline. Effect of temperature and solvent polarity on the CT fluorescence, 88
- Hydrazones
Novel hydrazone moieties containing polymers for optoelectronics, 23
- 2-(2-Hydroxyphenyl)-benzotriazoles
Synthesis of novel bifunctional polymer stabilizers—A combination of HALS and UV absorber, 205
- Hydrogen peroxide
Photocatalytic degradation of formic and benzoic acids and hydrogen peroxide evolution in TiO₂ and ZnO water suspensions, 15
- Hydrothermal treatment
Fe³⁺-TiO₂ photocatalysts prepared by combining sol-gel method with hydrothermal treatment and their characterization, 196
- Hypocrellin A
A TD-DFT study on photo-physicochemical properties of hypocrellin A and its implications for elucidating the photosensitizing mechanisms of the pigment, 65
- Intense laser fields
Ultrafast strong field quantum control on K₂ dimers, 248
- Intermediates
Photocatalytic degradation of DNOC in aqueous TiO₂ dispersions. Investigation of the initial reaction steps, 157
- Intersystem crossing
Electron transfer and intersystem crossing processes in new dyes based on 1*H*-pyrazolo[3,4-*b*]quinoxaline. Effect of temperature and solvent polarity on the CT fluorescence, 88
- Isoeriocephalin
Photochemical reactivity of 6 α -hydroxy-7-keto neoclerodane diterpenoids, 54
- Kinetic model
A kinetic description of monomolecular photochemical reaction with the use of polychromatic irradiation, 28
- Luminescence
Luminescence quenching of Ru(bpy)₃²⁺ by nitrophenols in silicate thin films, 9

- Matrix isolation IR spectroscopy
Infrared spectrum and UV-induced photochemistry of matrix-isolated 5-methoxy-1-phenyl-1*H*-tetrazole, 175
- Matrix-isolated dihalogens
Model simulation of coherent laser control of the ultrafast spin-flip dynamics of matrix-isolated Cl₂, 262
- MCM-48
The photoluminescence of rhodamine B encapsulated in mesoporous Si-MCM-48, Ce-MCM-48, Fe-MCM-48 and Cr-MCM-48 molecular sieves, 59
- 3-Methoxy-1-phenyl-1*H*-diazirene
Infrared spectrum and UV-induced photochemistry of matrix-isolated 5-methoxy-1-phenyl-1*H*-tetrazole, 175
- 5-Methoxy-1-phenyl-1*H*-tetrazole
Infrared spectrum and UV-induced photochemistry of matrix-isolated 5-methoxy-1-phenyl-1*H*-tetrazole, 175
- Me-MCM-48
The photoluminescence of rhodamine B encapsulated in mesoporous Si-MCM-48, Ce-MCM-48, Fe-MCM-48 and Cr-MCM-48 molecular sieves, 59
- Methylcyanate
Infrared spectrum and UV-induced photochemistry of matrix-isolated 5-methoxy-1-phenyl-1*H*-tetrazole, 175
- Mineralization
Photo-Fenton degradation of alachlor in the presence of citrate solution, 38
- Mixtures
Selective excitation of molecular modes in a mixture by optimal control of electronically nonresonant femtosecond four-wave mixing spectroscopy, 289
- Molecular dynamics
Classical aspects emerging from local control of energy and particle transfer in molecules, 271
- Molecular squeezing
Squeezing the ground vibrational state of diatomic molecules, 241
- Molecular switches
Control strategies for reactive processes involving vibrationally hot product states, 282
- Monomolecular photochemical reaction
A kinetic description of monomolecular photochemical reaction with the use of polychromatic irradiation, 28
- Multiphoton excitation
Ultrafast strong field quantum control on K₂ dimers, 248
Singlet versus triplet dynamics of β -carotene studied by quantum control spectroscopy, 314
- Nano rutile TiO₂
Investigation on degradation of dyestuff wastewater using visible light in the presence of a novel nano TiO₂ catalyst doped with upconversion luminescence agent, 189
- Naphthalenediimide
Electron transfer, charge stabilization and charge recombination in naphthalenediimide-tryptophan immobilized on silica particles, 218
- Naphthalimide
A polyamidoamine dendrimer with peripheral 1,8-naphthalimide groups capable of acting as a PET fluorescent sensor for the rare earth cations, 69
- Neoclerodane
Photochemical reactivity of 6 α -hydroxy-7-keto neoclerodane diterpenoids, 54
- Nitrobenzene quencher
Synthesis, properties and fluorescence quenching in a polycation based on polyetherurethane with pyrene fluorophore, 150
- Nitrophenol
Luminescence quenching of Ru(bpy)₃²⁺ by nitrophenols in silicate thin films, 9
- Nonlinear four-wave mixing spectroscopy
Selective excitation of molecular modes in a mixture by optimal control of electronically nonresonant femtosecond four-wave mixing spectroscopy, 289
- Optimal control
Selective excitation of molecular modes in a mixture by optimal control of electronically nonresonant femtosecond four-wave mixing spectroscopy, 289
Laser pulse control of exciton dynamics in the FMO complex: Polarization shaping versus effects of structural and energetic disorder, 322
- Optimal Control Theory
Control strategies for reactive processes involving vibrationally hot product states, 282
- PAA
Photochemical transformation in poly(acrylic acid)/poly(ethylene oxide) complexes, 46
- Parametrization
Optimal control methods applied on the ionization processes of alkali dimers, 256
- PEO
Photochemical transformation in poly(acrylic acid)/poly(ethylene oxide) complexes, 46
- Perylenequinonoid pigments
A TD-DFT study on photo-physicochemical properties of hypocrellin A and its implications for elucidating the photosensitizing mechanisms of the pigment, 65
- Phase modulation
Coherent control improves biomedical imaging with ultrashort shaped pulses, 307
- Phase transfer catalysis
Synthesis of novel bifunctional polymer stabilizers—A combination of HALS and UV absorber, 205
- Phenol
Recombination rate of photogenerated charges versus surface area: Opposing effects of TiO₂ sintering temperature on photocatalytic removal of phenol, anisole, and pyridine in water, 130
- Phenosafuranine
Solvatochromic effects on the fluorescence and triplet–triplet absorption of phenosafuranine in protic and aprotic solvents, 143
- Phenylazide
Infrared spectrum and UV-induced photochemistry of matrix-isolated 5-methoxy-1-phenyl-1*H*-tetrazole, 175
- Phosphoric acid acidity
Physico–chemical behaviour of V(V) in a concentrated phosphoric acid, 213
- Photo fragmentation
Classical aspects emerging from local control of energy and particle transfer in molecules, 271
- Photocatalysis
Recombination rate of photogenerated charges versus surface area: Opposing effects of TiO₂ sintering temperature on photocatalytic removal of phenol, anisole, and pyridine in water, 130
Photocatalytic degradation of DNOC in aqueous TiO₂ dispersions. Investigation of the initial reaction steps, 157
- Photocatalyst
Fe³⁺-TiO₂ photocatalysts prepared by combining sol–gel method with hydrothermal treatment and their characterization, 196
- Photocatalytic degradation
Photocatalytic degradation of formic and benzoic acids and hydrogen peroxide evolution in TiO₂ and ZnO water suspensions, 15
Investigation on degradation of dyestuff wastewater using visible light in the presence of a novel nano TiO₂ catalyst doped with upconversion luminescence agent, 189
- Photochemistry
Photochemical reactivity of 6 α -hydroxy-7-keto neoclerodane diterpenoids, 54
- Photochromism
Unusual conformational effects in proton transfer kinetics of an excited photochromic Schiff base, 101
- Photo-Fenton reaction
Photo-Fenton degradation of alachlor in the presence of citrate solution, 38

- Photoinitiator
 New photocleavable structures III: Photochemistry and photophysics of pyridinoyl and benzoyl-based photoinitiators, 109
- Photooxidation
 Photophysics of dibenzodioxocins, 165
- photooxidative degradation
 Photochemical transformation in poly(acrylic acid)/poly(ethylene oxide) complexes, 46
- Photophysics
 Photophysics of dibenzodioxocins, 165
- Photopolymerization
 Fluorescence monitoring of photoinitiated polymerization reactions. Synthesis, photochemical study and behaviour as fluorescent probes of new derivatives of 4'-dimethylaminostyryldiazines, 118
- Photosensitive mechanisms
 A TD-DFT study on photo-physicochemical properties of hypocrellin A and its implications for elucidating the photosensitizing mechanisms of the pigment, 65
- Photostability
 Synthesis of novel bifunctional polymer stabilizers—A combination of HALS and UV absorber, 205
- Photosynthetic antenna system
 Laser pulse control of exciton dynamics in the FMO complex: Polarization shaping versus effects of structural and energetic disorder, 322
- Polarization
 Laser pulse control of exciton dynamics in the FMO complex: Polarization shaping versus effects of structural and energetic disorder, 322
- Poly(acrylic acid)
 Photochemical transformation in poly(acrylic acid)/poly(ethylene oxide) complexes, 46
- Polyaddition
 Novel hydrazone moieties containing polymers for optoelectronics, 23
- Polychromatic light
 A kinetic description of monomolecular photochemical reaction with the use of polychromatic irradiation, 28
- Polycyanate
 Quantum yield enhancement of photoluminescent polycyanate resin by blending with 1-pyrenecarboxylic acid, 136
- poly(ethylene oxide)
 Photochemical transformation in poly(acrylic acid)/poly(ethylene oxide) complexes, 46
- Polymer blends
 Photochemical transformation in poly(acrylic acid)/poly(ethylene oxide) complexes, 46
- Polymers
 Novel hydrazone moieties containing polymers for optoelectronics, 23
- Poly(*N*-isopropylacrylamide)
 Time-resolved fluorescence anisotropy measurements in the study of poly(*N*-isopropyl acrylamide)-based systems, 1
- Potassium ferrioxalate
 A kinetic description of monomolecular photochemical reaction with the use of polychromatic irradiation, 28
- Proton transfer
 Classical aspects emerging from local control of energy and particle transfer in molecules, 271
- PU ionomers
 Synthesis, properties and fluorescence quenching in a polycation based on polyetherurethane with pyrene fluorophore, 150
- Pyrazolo[3,4-*b*]quinoxalines
 Electron transfer and intersystem crossing processes in new dyes based on 1*H*-pyrazolo[3,4-*b*]quinoxaline. Effect of temperature and solvent polarity on the CT fluorescence, 88
- 1-Pyrenecarboxylic acid
 Quantum yield enhancement of photoluminescent polycyanate resin by blending with 1-pyrenecarboxylic acid, 136
- Pyrene polycation
 Synthesis, properties and fluorescence quenching in a polycation based on polyetherurethane with pyrene fluorophore, 150
- Pyridine
 Recombination rate of photogenerated charges versus surface area: Opposing effects of TiO₂ sintering temperature on photocatalytic removal of phenol, anisole, and pyridine in water, 130
- Pyridine ketone
 New photocleavable structures III: Photochemistry and photophysics of pyridinoyl and benzoyl-based photoinitiators, 109
- Quantum control
 Why do effective quantum controls appear easy to find?, 226
 Squeezing the ground vibrational state of diatomic molecules, 241
 Ultrafast strong field quantum control on K₂ dimers, 248
- Quantum dynamics
 Classical aspects emerging from local control of energy and particle transfer in molecules, 271
- Quantum yield
 Quantum yield enhancement of photoluminescent polycyanate resin by blending with 1-pyrenecarboxylic acid, 136
- Quenching
 Luminescence quenching of Ru(bpy)₃²⁺ by nitrophenols in silicate thin films, 9
- Raman spectroscopy
 Selective excitation of molecular modes in a mixture by optimal control of electronically nonresonant femtosecond four-wave mixing spectroscopy, 289
- Reactive oxygen species
 A TD-DFT study on photo-physicochemical properties of hypocrellin A and its implications for elucidating the photosensitizing mechanisms of the pigment, 65
- Real-time particle detection
 Discriminating bacteria from other atmospheric particles using femtosecond molecular dynamics, 300
- Rhodamine B
 The photoluminescence of rhodamine B encapsulated in mesoporous Si-MCM-48, Ce-MCM-48, Fe-MCM-48 and Cr-MCM-48 molecular sieves, 59
- SAM1
 Photophysics of dibenzodioxocins, 165
- Schiff bases
 Unusual conformational effects in proton transfer kinetics of an excited photochromic Schiff base, 101
- Shaped pulses
 Coherent control improves biomedical imaging with ultrashort shaped pulses, 307
- Short-circuit photocurrent
 TiO₂ nanorods as additive to TiO₂ film for improvement in the performance of dye-sensitized solar cells, 184
- Silica particles
 Electron transfer, charge stabilization and charge recombination in naphthalenediimide-tryptophan immobilized on silica particles, 218
- Singlet oxygen
 Photophysics of dibenzodioxocins, 165
- Sintering temperature
 Recombination rate of photogenerated charges versus surface area: Opposing effects of TiO₂ sintering temperature on photocatalytic removal of phenol, anisole, and pyridine in water, 130
- Solar energy conversion efficiency
 TiO₂ nanorods as additive to TiO₂ film for improvement in the performance of dye-sensitized solar cells, 184
- Sol-gel method
 Fe³⁺-TiO₂ photocatalysts prepared by combining sol-gel method with hydrothermal treatment and their characterization, 196
- Solvatochromic effects
 Solvatochromic effects on the fluorescence and triplet-triplet absorption of phenosafranine in protic and aprotic solvents, 143

- Solvent effect
Electron transfer and intersystem crossing processes in new dyes based on 1*H*-pyrazolo[3,4-*b*]quinoxaline. Effect of temperature and solvent polarity on the CT fluorescence, 88
- Spectrophotometry
Physico-chemical behaviour of V(V) in a concentrated phosphoric acid, 213
- Spin-orbit coupling
Model simulation of coherent laser control of the ultrafast spin-flip dynamics of matrix-isolated Cl₂, 262
- SPODS
Ultrafast strong field quantum control on K₂ dimers, 248
- Supersonic jet
Acid-base properties of 3,5-dimethyl-1,7-diphenyl derivative of bis-pyrazolopyridine in non-aqueous solutions, 80
- Surface morphology
Photoinduced surface roughness variation in polycrystalline TiO₂ thin films, 75
- Surface roughness
Photoinduced surface roughness variation in polycrystalline TiO₂ thin films, 75
- Temperature effect
Electron transfer and intersystem crossing processes in new dyes based on 1*H*-pyrazolo[3,4-*b*]quinoxaline. Effect of temperature and solvent polarity on the CT fluorescence, 88
- 2,2,6,6-Tetramethylpiperidines
Synthesis of novel bifunctional polymer stabilizers—A combination of HALS and UV absorber, 205
- Tetrazole ring cleavage
Infrared spectrum and UV-induced photochemistry of matrix-isolated 5-methoxy-1-phenyl-1*H*-tetrazole, 175
- Teucrolivin B
Photochemical reactivity of 6α-hydroxy-7-keto neoclerodane diterpenoids, 54
- The rare earth ions
A polyamidoamine dendrimer with peripheral 1,8-naphthalimide groups capable of acting as a PET fluorescent sensor for the rare earth cations, 69
- Thermoresponsive
Time-resolved fluorescence anisotropy measurements in the study of poly(*N*-isopropyl acrylamide)-based systems, 1
- Thin films
Luminescence quenching of Ru(bpy)₃²⁺ by nitrophenols in silicate thin films, 9
- Three-photon
Coherent control improves biomedical imaging with ultrashort shaped pulses, 307
- Time-dependent density functional theory
A TD-DFT study on photo-physicochemical properties of hypocrellin A and its implications for elucidating the photosensitizing mechanisms of the pigment, 65
- Time-resolved anisotropy measurements
Time-resolved fluorescence anisotropy measurements in the study of poly(*N*-isopropyl acrylamide)-based systems, 1
- Time-resolved laser flash photolysis
New photocleavable structures III: Photochemistry and photophysics of pyridinoyl and benzoyl-based photoinitiators, 109
- TiO₂ nanostructure
TiO₂ nanorods as additive to TiO₂ film for improvement in the performance of dye-sensitized solar cells, 184
- Titanium dioxide (TiO₂)
Photocatalytic degradation of formic and benzoic acids and hydrogen peroxide evolution in TiO₂ and ZnO water suspensions, 15
Photoinduced surface roughness variation in polycrystalline TiO₂ thin films, 75
Recombination rate of photogenerated charges versus surface area: Opposing effects of TiO₂ sintering temperature on photocatalytic removal of phenol, anisole, and pyridine in water, 130
Fe³⁺-TiO₂ photocatalysts prepared by combining sol-gel method with hydrothermal treatment and their characterization, 196
- Triplet-state
Solvatochromic effects on the fluorescence and triplet-triplet absorption of phenosafranin in protic and aprotic solvents, 143
- Tris(2,2'-bipyridine)ruthenium(II)
Luminescence quenching of Ru(bpy)₃²⁺ by nitrophenols in silicate thin films, 9
- Tryptophan
Electron transfer, charge stabilization and charge recombination in naphthalenediimide-tryptophan immobilized on silica particles, 218
- Tubular through-flow photochemical reactor
A kinetic description of monomolecular photochemical reaction with the use of polychromatic irradiation, 28
- Two-photon imaging
Coherent control improves biomedical imaging with ultrashort shaped pulses, 307
- Ultrafast laser spectroscopy
Unusual conformational effects in proton transfer kinetics of an excited photochromic Schiff base, 101
- Ultrafast spectroscopy
Charge-transfer as a mechanism for controlling molecular fragmentation, 277
- Ultrashort laser pulses
Model simulation of coherent laser control of the ultrafast spin-flip dynamics of matrix-isolated Cl₂, 262
- Upconversion luminescence agent
Investigation on degradation of dyestuff wastewater using visible light in the presence of a novel nano TiO₂ catalyst doped with upconversion luminescence agent, 189
- Vanadium
Physico-chemical behaviour of V(V) in a concentrated phosphoric acid, 213
- Viscosity
Physico-chemical behaviour of V(V) in a concentrated phosphoric acid, 213
- Visible light
Investigation on degradation of dyestuff wastewater using visible light in the presence of a novel nano TiO₂ catalyst doped with upconversion luminescence agent, 189
- Wastewater treatment
Photo-Fenton degradation of alachlor in the presence of citrate solution, 38
- Wave packet dynamics
Squeezing the ground vibrational state of diatomic molecules, 241
Charge-transfer as a mechanism for controlling molecular fragmentation, 277
- Wetting
Photoinduced surface roughness variation in polycrystalline TiO₂ thin films, 75
- Zinc oxide
Photocatalytic degradation of formic and benzoic acids and hydrogen peroxide evolution in TiO₂ and ZnO water suspensions, 15