

## Subject Index of Volume 173

- Absorption spectra  
Optimization of the preparation methods. Synthesis of mesostructured TiO<sub>2</sub> with high photocatalytic activities, 7  
Investigation on disassociation of porphyrin J-aggregates induced by  $\beta$ -cyclodextrins using absorption and fluorescence spectroscopy, 296
- Absorption spectroscopy  
Study on spectroscopic characterization of *meso*-tetrakis (4-hydroxyphenyl) porphyrin (THPP) in  $\beta$ -cyclodextrin and its derivatives, 258  
Spectral and photophysical properties of 2-dibenzofuranol and its inclusion complexes with cyclodextrins, 319
- Absorption  
Optical response of thiosalicylic-capped CdS nanocrystals to terbium ions, 169
- AC impedance  
Photocatalytic water decomposition for hydrogen production over silicotungstic acid–silica photocatalyst, 56
- Acidolysis lignin  
Photodegradation of sugar cane bagasse acidolysis lignins, 150
- Aggregation number  
Fluorescence study of solubilization of L- $\alpha$ -dilauroylphosphatidylethanolamine in the mixed micelles with monomeric and dimeric cationic surfactants, 202
- 2-Allylaniline  
Photochemical and structural properties of the cyclodextrin inclusion complexes of aryl-olefin bichromophores, 349
- 2-Allylanisole  
Photochemical and structural properties of the cyclodextrin inclusion complexes of aryl-olefin bichromophores, 349
- 2-Allylphenol  
Photochemical and structural properties of the cyclodextrin inclusion complexes of aryl-olefin bichromophores, 349
- (2-Allyloxyphenyl)pentamethyldisilane  
Photoreactions of (2-substituted-phenyl)pentamethyldisilanes, 29
- Anion emission  
Effect of additives on the photophysics of 2-acetyl benzimidazole and 2-benzoyl benzimidazole encapsulated in cyclodextrin cavity, 279
- Anion radical  
Effect of substituents on charge carrier dynamics in thiophene oligomers, 161
- Anionic species  
pH-Dependent excited-state proton transfer characteristics in 2-acetyl benzimidazole and 2-benzoyl benzimidazole in aqueous and non-aqueous media, 106
- Anodic alumina  
Photocatalytic activity of titania nanohole arrays, 99
- Anthracenecarboxylic acid  
Enantiodifferentiating [4+4] photocyclodimerization of 2-anthracenecarboxylate catalyzed by 6<sup>A</sup>,6<sup>X</sup>-diamino-6<sup>A</sup>,6<sup>X</sup>-dideoxy- $\gamma$ -cyclodextrins: Manipulation of product chirality by electrostatic interaction, temperature and solvent in supramolecular photochirogenesis, 375
- Aromatic azide  
Photodissociation of 4-azidopyridine and 4-azidoquinoline in neutral and cationic forms, 70
- Aromatic moiety  
Photocatalytic degradation of pentachlorophenol in aqueous solution employing immobilized TiO<sub>2</sub> supported on titanium metal, 51
- Azobenzenes  
Reversibility of conformational switching in light-sensitive peptides, 21  
Mechanistic studies on the photodegradation of azoarenes, 174
- Azothiophenes  
Mechanistic studies on the photodegradation of azoarenes, 174
- Benzazolylynylene derivatives  
New fluorescent monomers and polymers displaying an intramolecular proton-transfer mechanism in the electronically excited state (ESIPT). Part II. Synthesis, spectroscopic characterization and solvatochromism of new benzazolylynylene derivatives, 81
- Benzofuran  
Photochemistry of anthrylene derivatives containing heteroaromatic ring: Thiophene, furan, and their fused ring derivatives, 195
- Benzothiophene  
Photochemistry of anthrylene derivatives containing heteroaromatic ring: Thiophene, furan, and their fused ring derivatives, 195
- Bi/TiO<sub>2</sub>  
Characterization of Bi/TiO<sub>2</sub> nanometer sized particle synthesized by solvothermal method and CH<sub>3</sub>CHO decomposition in a plasma-photocatalytic system, 128
- Binding constants  
Binding of dibenzofuran and its derivatives to water-soluble  $\beta$ -cyclodextrin polymers, 248  
Spectral and photophysical properties of 2-dibenzofuranol and its inclusion complexes with cyclodextrins, 319
- Calf thymus DNA (ctDNA)  
Effect of microscopic environment on the self-stacking binding of porphyrin to DNA, 36
- Cation radical  
Effect of substituents on charge carrier dynamics in thiophene oligomers, 161
- Cationic surfactants  
Fluorescence study of solubilization of L- $\alpha$ -dilauroylphosphatidylethanolamine in the mixed micelles with monomeric and dimeric cationic surfactants, 202
- CdS nanocrystals  
Optical response of thiosalicylic-capped CdS nanocrystals to terbium ions, 169

- Charge effect  
Photodissociation of 4-azidopyridine and 4-azidoquinoline in neutral and cationic forms, 70
- Charge transfer  
Photocatalytic water decomposition for hydrogen production over silicating acid-silica photocatalyst, 56
- CH<sub>3</sub>CHO decomposition  
Characterization of Bi/TiO<sub>2</sub> nanometer sized particle synthesized by solvothermal method and CH<sub>3</sub>CHO decomposition in a plasma-photocatalytic system, 128
- Chiral discrimination  
Chiral discrimination in the complexation of heptakis-(2,6-di-*O*-methyl)- $\beta$ -cyclodextrin with 2,3-diazabicyclo[2.2.2]oct-2-ene derivatives, 340
- Chirality inversion  
Enantiodifferentiating [4+4] photocyclodimerization of 2-anthracene-carboxylate catalyzed by 6<sup>A</sup>,6<sup>X</sup>-diamino-6<sup>A</sup>,6<sup>X</sup>-dideoxy- $\gamma$ -cyclodextrins: Manipulation of product chirality by electrostatic interaction, temperature and solvent in supramolecular photochiro-genesis, 375
- Chloride ion  
Photocatalytic degradation of pentachlorophenol in aqueous solution employing immobilized TiO<sub>2</sub> supported on titanium metal, 51
- Chromotropic property  
Studies on the interaction of bacterial capsular polysaccharide-*Klebsiella* K16 with cationic dyes, 64
- Circular dichroism  
Chiral discrimination in the complexation of heptakis-(2,6-di-*O*-methyl)- $\beta$ -cyclodextrin with 2,3-diazabicyclo[2.2.2]oct-2-ene derivatives, 340
- Cooperativity  
Caging anionic structure of a proton transfer dye in a hydrophobic nanocavity with a cooperative H-bonding, 358
- Copper nanoparticles  
Photochemical synthesis and optical properties of binary and ternary metal-semiconductor composites based on zinc oxide nanoparticles, 185
- Curcumin  
Fluorescence enhancement of curcumin upon inclusion into parent and modified cyclodextrins, 230
- Cyclodextrin nanocavity  
Caging anionic structure of a proton transfer dye in a hydrophobic nanocavity with a cooperative H-bonding, 358
- Cyclodextrin polymers  
Binding of dibenzofuran and its derivatives to water-soluble  $\beta$ -cyclodextrin polymers, 248
- Cyclodextrins  
Effect of microscopic environment on the self-stacking binding of porphyrin to DNA, 36  
Fluorescence enhancement of curcumin upon inclusion into parent and modified cyclodextrins, 230  
Complexes of dihexyl 2,6-naphthalenedicarboxylate with  $\alpha$ - and  $\beta$ -cyclodextrins: Fluorescence and molecular modelling, 238  
Study on spectroscopic characterization of *meso*-tetrakis (4-hydroxyphenyl) porphyrin (THPP) in  $\beta$ -cyclodextrin and its derivatives, 258  
Highly selective sensing of lead ion based on  $\alpha$ -,  $\beta$ -,  $\gamma$ -, and  $\delta$ -tetrakis(3,5-dibromo-2-hydroxyphenyl)porphyrin/ $\beta$ -CD inclusion complex, 264  
Effect of additives on the photophysics of 2-acetyl benzimidazole and 2-benzoyl benzimidazole encapsulated in cyclodextrin cavity, 279  
Cyclodextrins modify the proton transfer photoreactions of norharmane, 287  
Investigation on disassociation of porphyrin J-aggregates induced by  $\beta$ -cyclodextrins using absorption and fluorescence spectroscopy, 296
- Current state of the art in cyclodextrin-induced room temperature phosphorescence in the presence of oxygen, 301
- Non-radiative decay in rhodamines: Role of 1:1 and 1:2 molecular complexation with  $\beta$ -cyclodextrin, 309
- Spectral and photophysical properties of 2-dibenzofuranol and its inclusion complexes with cyclodextrins, 319
- Switchable fluorescence behaviors of pyronine Y at different pH values upon complexation with biquinolono-bridged bis( $\beta$ -cyclodextrin), 328
- Chiral discrimination in the complexation of heptakis-(2,6-di-*O*-methyl)- $\beta$ -cyclodextrin with 2,3-diazabicyclo[2.2.2]oct-2-ene derivatives, 340
- Photochemical and structural properties of the cyclodextrin inclusion complexes of aryl-olefin bichromophores, 349
- $\beta$ -Cyclodextrin  
Temperature dependence of the inclusion-dissociation behavior of the inclusion complexes between cationic substituted 3H-indoles and  $\beta$ -cyclodextrin. Design of a novel type of semi-rotaxane, 42  
Binding of dibenzofuran and its derivatives to water-soluble  $\beta$ -cyclodextrin polymers, 248  
Efficient inclusion complexation and intra-complex excitation energy transfer between aromatic group-modified  $\beta$ -cyclodextrins and a hemicyanine dye, 271  
Theoretical study of the photoinduced intramolecular proton transfer and rotational processes in 2-(2'-hydroxyphenyl)-4-methyloxazole in gas phase and embedded in  $\beta$ -cyclodextrin, 365  
Fluorometric detection of nitric oxide using 2,3-diaminonaphthalene incorporated in  $\beta$ -cyclodextrin, 384
- Defluorination  
Nanoparticle mediated photodefluorination monitored by <sup>19</sup>F NMR, 156
- Degradation  
Photo-assisted degradation of anionic and cationic dyes over iron(III)-loaded resin in the presence of hydrogen peroxide, 121
- Deprotonation  
Effect of additives on the photophysics of 2-acetyl benzimidazole and 2-benzoyl benzimidazole encapsulated in cyclodextrin cavity, 279
- Diamino- $\gamma$ -cyclodextrin  
Enantiodifferentiating [4+4] photocyclodimerization of 2-anthracene-carboxylate catalyzed by 6<sup>A</sup>,6<sup>X</sup>-diamino-6<sup>A</sup>,6<sup>X</sup>-dideoxy- $\gamma$ -cyclodextrins: Manipulation of product chirality by electrostatic interaction, temperature and solvent in supramolecular photochiro-genesis, 375
- 2,3-Diaminonaphthalene  
Fluorometric detection of nitric oxide using 2,3-diaminonaphthalene incorporated in  $\beta$ -cyclodextrin, 384
- Diarylethene  
Photochemistry of anthrylethene derivatives containing heteroaromatic ring: Thiophene, furan, and their fused ring derivatives, 195
- 2-Dibenzofuranol  
Spectral and photophysical properties of 2-dibenzofuranol and its inclusion complexes with cyclodextrins, 319
- Dibenzofurans  
Binding of dibenzofuran and its derivatives to water-soluble  $\beta$ -cyclodextrin polymers, 248
- Dihexyl 2,6-naphthalenedicarboxylate  
Complexes of dihexyl 2,6-naphthalenedicarboxylate with  $\alpha$ - and  $\beta$ -cyclodextrins: Fluorescence and molecular modelling, 238
- [2-(3,3-Dimethyl-2-propenyloxy)phenyl]pentamethyldisilane  
Photoreactions of (2-substituted-phenyl)pentamethyldisilanes, 29
- DRIFT spectroscopy  
Changes in DRIFT spectra of wood irradiated by UV laser as a function of energy, 137
- Dye-polymer interaction  
Studies on the interaction of bacterial capsular polysaccharide-*Klebsiella* K16 with cationic dyes, 64

- Dyes**  
 Photophysical properties of safranin and phenosafranin. A comparative study by laser flash photolysis and laser induced optoacoustic spectroscopy, 115  
 Photo-assisted degradation of anionic and cationic dyes over iron(III)-loaded resin in the presence of hydrogen peroxide, 121
- Dye-sensitization**  
 Electrophoretically deposited TiO<sub>2</sub> photo-electrodes for use in flexible dye-sensitized solar cells, 1
- Electrophoretic deposition**  
 Electrophoretically deposited TiO<sub>2</sub> photo-electrodes for use in flexible dye-sensitized solar cells, 1
- Emission**  
 Caging anionic structure of a proton transfer dye in a hydrophobic nanocavity with a cooperative H-bonding, 358
- Enantiodifferentiation**  
 Enantiodifferentiating [4+4] photocyclodimerization of 2-anthracenecarboxylate catalyzed by 6<sup>A</sup>,6<sup>X</sup>-diamino-6<sup>A</sup>,6<sup>X</sup>-dideoxy- $\gamma$ -cyclodextrins: Manipulation of product chirality by electrostatic interaction, temperature and solvent in supramolecular photochirogenesis, 375
- Energy dependence**  
 Changes in DRIFT spectra of wood irradiated by UV laser as a function of energy, 137
- Enthalpy-entropy compensation**  
 Enantiodifferentiating [4+4] photocyclodimerization of 2-anthracenecarboxylate catalyzed by 6<sup>A</sup>,6<sup>X</sup>-diamino-6<sup>A</sup>,6<sup>X</sup>-dideoxy- $\gamma$ -cyclodextrins: Manipulation of product chirality by electrostatic interaction, temperature and solvent in supramolecular photochirogenesis, 375
- ESIPT**  
 New fluorescent monomers and polymers displaying an intramolecular proton-transfer mechanism in the electronically excited state (ESIPT). Part II. Synthesis, spectroscopic characterization and solvatochromism of new benzazolylynylene derivatives, 81
- Excimer**  
 Spectral and photophysical properties of 2-dibenzofuranol and its inclusion complexes with cyclodextrins, 319
- Excitation energy transfer**  
 Efficient inclusion complexation and intra-complex excitation energy transfer between aromatic group-modified  $\beta$ -cyclodextrins and a hemicyanine dye, 271
- Excited-state proton transfer**  
 Spectral and photophysical properties of 2-dibenzofuranol and its inclusion complexes with cyclodextrins, 319
- <sup>19</sup>F NMR**  
 Nanoparticle mediated photodefluorination monitored by <sup>19</sup>F NMR, 156
- Fast dynamics**  
 Caging anionic structure of a proton transfer dye in a hydrophobic nanocavity with a cooperative H-bonding, 358
- $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>**  
 Photodegradation of  $\gamma$ -HCH by  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> and the influence of fulvic acid, 143
- Flexible solar cell**  
 Electrophoretically deposited TiO<sub>2</sub> photo-electrodes for use in flexible dye-sensitized solar cells, 1
- Fluorescein**  
 Fluorescence resonance energy transfer from Fluorescein to Safranin T in solutions and in micellar medium, 221
- Fluorescence anisotropy**  
 Binding of dibenzofuran and its derivatives to water-soluble  $\beta$ -cyclodextrin polymers, 248
- Fluorescence emission**  
 Photodegradation of sugar cane bagasse acidolysis lignins, 150
- Fluorescence enhancement**  
 Fluorescence enhancement of curcumin upon inclusion into parent and modified cyclodextrins, 230
- Fluorescence lifetime**  
 Photophysical and photochemical studies of sulphonated non-transition metal phthalocyanines in aqueous and non-aqueous media, 211
- Fluorescence measurements**  
 Fluorescence study of solubilization of L- $\alpha$ -dilauroylphosphatidylethanolamine in the mixed micelles with monomeric and dimeric cationic surfactants, 202
- Fluorescence quenching**  
 Studies on the interaction of bacterial capsular polysaccharide-*Klebsiella* K16 with cationic dyes, 64
- Fluorescence resonance energy transfer**  
 Fluorescence resonance energy transfer from Fluorescein to Safranin T in solutions and in micellar medium, 221
- Fluorescence sensing**  
 Switchable fluorescence behaviors of pyronine Y at different pH values upon complexation with biquinolino-bridged bis( $\beta$ -cyclodextrin), 328
- Fluorescence**  
 Effect of microscopic environment on the self-stacking binding of porphyrin to DNA, 36  
 Photochemistry of anthrylene derivatives containing heteroaromatic ring: Thiophene, furan, and their fused ring derivatives, 195  
 Complexes of dihexyl 2,6-naphthalenedicarboxylate with  $\alpha$ - and  $\beta$ -cyclodextrins: Fluorescence and molecular modelling, 238  
 Investigation on disassociation of porphyrin J-aggregates induced by  $\beta$ -cyclodextrins using absorption and fluorescence spectroscopy, 296  
 Hydration dynamics of 4-aminophthalimide in a substituted  $\beta$ -cyclodextrin nanocavity, 334  
 Chiral discrimination in the complexation of heptakis-(2,6-di-*O*-methyl)- $\beta$ -cyclodextrin with 2,3-diazabicyclo[2.2.2]oct-2-ene derivatives, 340  
 Fluorometric detection of nitric oxide using 2,3-diaminonaphthalene incorporated in  $\beta$ -cyclodextrin, 384
- Fluorescent polymers**  
 New fluorescent monomers and polymers displaying an intramolecular proton-transfer mechanism in the electronically excited state (ESIPT). Part II. Synthesis, spectroscopic characterization and solvatochromism of new benzazolylynylene derivatives, 81
- Fluorimetry**  
 Highly selective sensing of lead ion based on  $\alpha$ -,  $\beta$ -,  $\gamma$ -, and  $\delta$ -tetrakis(3,5-dibromo-2-hydroxyphenyl)porphyrin/ $\beta$ -CD inclusion complex, 264
- Fulvic acid**  
 Photodegradation of  $\gamma$ -HCH by  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> and the influence of fulvic acid, 143
- Furan**  
 Photochemistry of anthrylene derivatives containing heteroaromatic ring: Thiophene, furan, and their fused ring derivatives, 195
- $\gamma$ -HCH**  
 Photodegradation of  $\gamma$ -HCH by  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> and the influence of fulvic acid, 143
- Hemicyanine dye**  
 Efficient inclusion complexation and intra-complex excitation energy transfer between aromatic group-modified  $\beta$ -cyclodextrins and a hemicyanine dye, 271
- H<sub>2</sub>O addition**  
 Characterization of Bi/TiO<sub>2</sub> nanometer sized particle synthesized by solvothermal method and CH<sub>3</sub>CHO decomposition in a plasma-photocatalytic system, 128
- H<sub>2</sub>-TPR**  
 Characterization of Bi/TiO<sub>2</sub> nanometer sized particle synthesized by solvothermal method and CH<sub>3</sub>CHO decomposition in a plasma-photocatalytic system, 128

- $\alpha$ -Helix-coil  
 Reversibility of conformational switching in light-sensitive peptides, 21
- Host-guest complexes  
 Chiral discrimination in the complexation of heptakis-(2,6-di-*O*-methyl)- $\beta$ -cyclodextrin with 2,3-diazabicyclo[2.2.2]oct-2-ene derivatives, 340  
 Theoretical study of the photoinduced intramolecular proton transfer and rotational processes in 2-(2'-hydroxyphenyl)-4-methyloxazole in gas phase and embedded in  $\beta$ -cyclodextrin, 365
- Host-guest inclusion  
 Fluorescence enhancement of curcumin upon inclusion into parent and modified cyclodextrins, 230
- Humic substances  
 Photodegradation of  $\gamma$ -HCH by  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> and the influence of fulvic acid, 143
- Hydrogen peroxide  
 Photo-assisted degradation of anionic and cationic dyes over iron(III)-loaded resin in the presence of hydrogen peroxide, 121
- Hydroquinone  
 Photophysical and photochemical studies of sulphonated non-transition metal phthalocyanines in aqueous and non-aqueous media, 211
- 2-(2'-Hydroxyphenyl)-4-methyloxazole  
 Theoretical study of the photoinduced intramolecular proton transfer and rotational processes in 2-(2'-hydroxyphenyl)-4-methyloxazole in gas phase and embedded in  $\beta$ -cyclodextrin, 365
- Immobilized TiO<sub>2</sub>  
 Photocatalytic degradation of pentachlorophenol in aqueous solution employing immobilized TiO<sub>2</sub> supported on titanium metal, 51
- Inclusion complex  
 Complexes of dihexyl 2,6-naphthalenedicarboxylate with  $\alpha$ - and  $\beta$ -cyclodextrins: Fluorescence and molecular modelling, 238  
 Highly selective sensing of lead ion based on  $\alpha$ -,  $\beta$ -,  $\gamma$ -, and  $\delta$ -tetrakis(3,5-dibromo-2-hydroxyphenyl)porphyrin/ $\beta$ -CD inclusion complex, 264  
 Efficient inclusion complexation and intra-complex excitation energy transfer between aromatic group-modified  $\beta$ -cyclodextrins and a hemicyanine dye, 271
- Inclusion-dissociation interaction  
 Temperature dependence of the inclusion-dissociation behavior of the inclusion complexes between cationic substituted 3H-indoles and  $\beta$ -cyclodextrin. Design of a novel type of semi-rotaxane, 42
- Infrared spectroscopy  
 Photocatalytic degradation of a sulfonylurea herbicide over pure and tin-doped TiO<sub>2</sub> photocatalysts, 13
- Infrared  
 Effect of substituents on charge carrier dynamics in thiophene oligomers, 161
- Intramolecular proton-transfer  
 Theoretical study of the photoinduced intramolecular proton transfer and rotational processes in 2-(2'-hydroxyphenyl)-4-methyloxazole in gas phase and embedded in  $\beta$ -cyclodextrin, 365
- Iron species  
 Photo-assisted degradation of anionic and cationic dyes over iron(III)-loaded resin in the presence of hydrogen peroxide, 121
- J-aggregates  
 Investigation on disassociation of porphyrin J-aggregates induced by  $\beta$ -cyclodextrins using absorption and fluorescence spectroscopy, 296
- Langmuir-Blodgett films  
 Proton transfer involving a photoacid in Langmuir-Blodgett films of octadecylamine by time-resolved fluorescence spectroscopy, 75
- Laser photolysis  
 Photophysical properties of safranin and phenosafranin. A comparative study by laser flash photolysis and laser induced optoacoustic spectroscopy, 115
- Lead ion  
 Highly selective sensing of lead ion based on  $\alpha$ -,  $\beta$ -,  $\gamma$ -, and  $\delta$ -tetrakis(3,5-dibromo-2-hydroxyphenyl)porphyrin/ $\beta$ -CD inclusion complex, 264
- Lifetime  
 Hydration dynamics of 4-aminophthalimide in a substituted  $\beta$ -cyclodextrin nanocavity, 334
- Light-induced  
 Reversibility of conformational switching in light-sensitive peptides, 21
- Lignin  
 Photodegradation of sugar cane bagasse acidolysis lignins, 150
- LIOAS  
 Photophysical properties of safranin and phenosafranin. A comparative study by laser flash photolysis and laser induced optoacoustic spectroscopy, 115
- Liquid phase deposition method  
 Photocatalytic activity of titania nanohole arrays, 99
- Low temperature matrix  
 Effect of substituents on charge carrier dynamics in thiophene oligomers, 161
- Mechanism  
 Mechanistic studies on the photodegradation of azoarenes, 174
- Mercury sulfide  
 A surfactant-assisted photochemical route to single crystalline HgS nanotubes, 93
- meso*-Tetrakis (4-hydroxyphenyl) porphyrin (THPP)  
 Study on spectroscopic characterization of *meso*-tetrakis (4-hydroxyphenyl) porphyrin (THPP) in  $\beta$ -cyclodextrin and its derivatives, 258
- Mesostructured TiO<sub>2</sub>  
 Optimization of the preparation methods. Synthesis of mesostructured TiO<sub>2</sub> with high photocatalytic activities, 7
- Meso-tetra-(4-sulfonatophenyl) porphyrin  
 Investigation on disassociation of porphyrin J-aggregates induced by  $\beta$ -cyclodextrins using absorption and fluorescence spectroscopy, 296
- Meso-tetrakis(4-*N*-ethylpyridiumyl) porphyrin  
 Effect of microscopic environment on the self-stacking binding of porphyrin to DNA, 36
- Metachromatic compound  
 Studies on the interaction of bacterial capsular polysaccharide-*Klebsiella* K16 with cationic dyes, 64
- Metal-semiconductor nanocomposites  
 Photochemical synthesis and optical properties of binary and ternary metal-semiconductor composites based on zinc oxide nanoparticles, 185
- Methyl cyclodextrins  
 Hydration dynamics of 4-aminophthalimide in a substituted  $\beta$ -cyclodextrin nanocavity, 334
- Micelle  
 Fluorescence resonance energy transfer from Fluorescein to Safranin T in solutions and in micellar medium, 221
- Mixed micelles  
 Fluorescence study of solubilization of L- $\alpha$ -dilauroylphosphatidylethanolamine in the mixed micelles with monomeric and dimeric cationic surfactants, 202
- Molecular complex  
 Non-radiative decay in rhodamines: Role of 1:1 and 1:2 molecular complexation with  $\beta$ -cyclodextrin, 309
- Molecular mechanics  
 Complexes of dihexyl 2,6-naphthalenedicarboxylate with  $\alpha$ - and  $\beta$ -cyclodextrins: Fluorescence and molecular modelling, 238
- Mono and di-cation  
 pH-Dependent excited-state proton transfer characteristics in 2-acetyl benzimidazole and 2-benzoyl benzimidazole in aqueous and non-aqueous media, 106

- Nanoparticles  
 Photocatalytic degradation of a sulfonylurea herbicide over pure and tin-doped TiO<sub>2</sub> photocatalysts, 13  
 Nanoparticle mediated photodefluorination monitored by <sup>19</sup>F NMR, 156
- Nanotube  
 A surfactant-assisted photochemical route to single crystalline HgS nanotubes, 93
- Nitric oxide  
 Fluorometric detection of nitric oxide using 2,3-diaminonaphthalene incorporated in β-cyclodextrin, 384
- NMR  
 Spectral and photophysical properties of 2-dibenzofuranol and its inclusion complexes with cyclodextrins, 319
- Non-deoxygenation  
 Current state of the art in cyclodextrin-induced room temperature phosphorescence in the presence of oxygen, 301
- Non-radiative process  
 Non-radiative decay in rhodamines: Role of 1:1 and 1:2 molecular complexation with β-cyclodextrin, 309
- Norharmane  
 Cyclodextrins modify the proton transfer photoreactions of norharmane, 287
- Open conformer  
 pH-Dependent excited-state proton transfer characteristics in 2-acetyl benzimidazole and 2-benzoyl benzimidazole in aqueous and non-aqueous media, 106
- Packing density  
 Electrophoretically deposited TiO<sub>2</sub> photo-electrodes for use in flexible dye-sensitized solar cells, 1
- PCP  
 Photocatalytic degradation of pentachlorophenol in aqueous solution employing immobilized TiO<sub>2</sub> supported on titanium metal, 51
- Phenosafranine  
 Photophysical properties of safranine and phenosafranine. A comparative study by laser flash photolysis and laser induced optoacoustic spectroscopy, 115
- Phospholipid  
 Fluorescence study of solubilization of L-α-dilauroylphosphatidylethanolamine in the mixed micelles with monomeric and dimeric cationic surfactants, 202
- Photocatalysis  
 Photocatalytic degradation of a sulfonylurea herbicide over pure and tin-doped TiO<sub>2</sub> photocatalysts, 13  
 Photochemical synthesis and optical properties of binary and ternary metal–semiconductor composites based on zinc oxide nanoparticles, 185
- Photocatalyst  
 Photocatalytic activity of titania nanohole arrays, 99
- Photocatalytic activity  
 Optimization of the preparation methods. Synthesis of mesostructured TiO<sub>2</sub> with high photocatalytic activities, 7
- Photocatalytic degradation  
 Photocatalytic degradation of pentachlorophenol in aqueous solution employing immobilized TiO<sub>2</sub> supported on titanium metal, 51
- Photocatalytic water decomposition  
 Photocatalytic water decomposition for hydrogen production over silicotungstic acid–silica photocatalyst, 56
- Photochemical synthesis  
 Photochemical synthesis and optical properties of binary and ternary metal–semiconductor composites based on zinc oxide nanoparticles, 185
- Photochemistry  
 A surfactant-assisted photochemical route to single crystalline HgS nanotubes, 93
- Photochemical and structural properties of the cyclodextrin inclusion complexes of aryl-olefin bichromophores, 349
- Photo-control  
 Reversibility of conformational switching in light-sensitive peptides, 21
- Photocorrosion  
 Photochemical synthesis and optical properties of binary and ternary metal–semiconductor composites based on zinc oxide nanoparticles, 185
- Photocyclodimerization  
 Enantiodifferentiating [4+4] photocyclodimerization of 2-anthracene-carboxylate catalyzed by 6<sup>A</sup>,6<sup>X</sup>-diamino-6<sup>A</sup>,6<sup>X</sup>-dideoxy-γ-cyclodextrins: Manipulation of product chirality by electrostatic interaction, temperature and solvent in supramolecular photochirogenesis, 375
- Photodegradation  
 Changes in DRIFT spectra of wood irradiated by UV laser as a function of energy, 137  
 Photodegradation of γ-HCH by α-Fe<sub>2</sub>O<sub>3</sub> and the influence of fulvic acid, 143  
 Mechanistic studies on the photodegradation of azoarenes, 174
- Photodissociation  
 Photodissociation of 4-azidopyridine and 4-azidoquinoline in neutral and cationic forms, 70
- Photo-Fenton  
 Photo-assisted degradation of anionic and cationic dyes over iron(III)-loaded resin in the presence of hydrogen peroxide, 121
- Photoinduced electron transfer  
 Switchable fluorescence behaviors of pyronine Y at different pH values upon complexation with biquinolino-bridged bis(β-cyclodextrin), 328
- Photo-isomerization  
 Reversibility of conformational switching in light-sensitive peptides, 21
- Photoluminescence  
 Optical response of thiosalicylic-capped CdS nanocrystals to terbium ions, 169
- Photophysical properties  
 Photophysical properties of safranine and phenosafranine. A comparative study by laser flash photolysis and laser induced optoacoustic spectroscopy, 115
- Photoreactivity  
 Photodegradation of sugar cane bagasse acidolysis lignins, 150
- Photoreduction  
 Nanoparticle mediated photodefluorination monitored by <sup>19</sup>F NMR, 156
- pH-variation  
 Effect of additives on the photophysics of 2-acetyl benzimidazole and 2-benzoyl benzimidazole encapsulated in cyclodextrin cavity, 279
- Plasma-photocatalytic system  
 Characterization of Bi/TiO<sub>2</sub> nanometer sized particle synthesized by solvothermal method and CH<sub>3</sub>CHO decomposition in a plasma-photocatalytic system, 128
- <sup>31</sup>P NMR spectrometry  
 Photodegradation of sugar cane bagasse acidolysis lignins, 150
- Porphyrin  
 Highly selective sensing of lead ion based on α-, β-, γ-, and δ-tetrakis(3,5-dibromo-2-hydroxyphenyl)porphyrin/β-CD inclusion complex, 264
- Proton transfer photoreactions  
 Cyclodextrins modify the proton transfer photoreactions of norharmane, 287
- Proton transfer  
 pH-Dependent excited-state proton transfer characteristics in 2-acetyl benzimidazole and 2-benzoyl benzimidazole in aqueous and non-aqueous media, 106

- Proton transfer involving a photoacid in Langmuir–Blodgett films of octadecylamine by time-resolved fluorescence spectroscopy, 75
- Effect of additives on the photophysics of 2-acetyl benzimidazole and 2-benzoyl benzimidazole encapsulated in cyclodextrin cavity, 279
- Caging anionic structure of a proton transfer dye in a hydrophobic nanocavity with a cooperative H-bonding, 358
- Pyranine
- Proton transfer involving a photoacid in Langmuir–Blodgett films of octadecylamine by time-resolved fluorescence spectroscopy, 75
- Pyronine Y
- Switchable fluorescence behaviors of pyronine Y at different pH values upon complexation with biquinolino-bridged bis( $\beta$ -cyclodextrin), 328
- Quantum confinement effects
- Photochemical synthesis and optical properties of binary and ternary metal–semiconductor composites based on zinc oxide nanoparticles, 185
- Quantum yield
- Photodissociation of 4-azidopyridine and 4-azidoquinoline in neutral and cationic forms, 70
- Quantum-chemical calculations
- Photodissociation of 4-azidopyridine and 4-azidoquinoline in neutral and cationic forms, 70
- Quenching
- Photophysical and photochemical studies of sulphonated non-transition metal phthalocyanines in aqueous and non-aqueous media, 211
- Remediation
- Nanoparticle mediated photodefluorination monitored by  $^{19}\text{F}$  NMR, 156
- Resonance light-scattering
- Effect of microscopic environment on the self-stacking binding of porphyrin to DNA, 36
- Reversal of metachromasy
- Studies on the interaction of bacterial capsular polysaccharide-*Klebsiella* K16 with cationic dyes, 64
- Rhodamine
- Non-radiative decay in rhodamines: Role of 1:1 and 1:2 molecular complexation with  $\beta$ -cyclodextrin, 309
- Room temperature phosphorescence
- Current state of the art in cyclodextrin-induced room temperature phosphorescence in the presence of oxygen, 301
- RRKM theory
- Theoretical study of the photoinduced intramolecular proton transfer and rotational processes in 2-(2'-hydroxyphenyl)-4-methyloxazole in gas phase and embedded in  $\beta$ -cyclodextrin, 365
- Safranin T
- Fluorescence resonance energy transfer from Fluorescein to Safranin T in solutions and in micellar medium, 221
- Safranin
- Photophysical properties of safranin and phenosafranin. A comparative study by laser flash photolysis and laser induced optoacoustic spectroscopy, 115
- Silatriene
- Photoreactions of (2-substituted-phenyl)pentamethyldisilanes, 29
- Silica
- Photocatalytic water decomposition for hydrogen production over silicotungstic acid–silica photocatalyst, 56
- Silicotungstic acid
- Photocatalytic water decomposition for hydrogen production over silicotungstic acid–silica photocatalyst, 56
- Size exclusion chromatography
- Photodegradation of sugar cane bagasse acidolysis lignins, 150
- Slow solvation dynamics
- Hydration dynamics of 4-aminophthalimide in a substituted  $\beta$ -cyclodextrin nanocavity, 334
- Sn
- Photocatalytic degradation of a sulfonylurea herbicide over pure and tin-doped  $\text{TiO}_2$  photocatalysts, 13
- Solvation effect
- Temperature dependence of the inclusion–dissociation behavior of the inclusion complexes between cationic substituted 3H-indoles and  $\beta$ -cyclodextrin. Design of a novel type of semi-rotaxane, 42
- Solvatochromism
- Efficient inclusion complexation and intra-complex excitation energy transfer between aromatic group-modified  $\beta$ -cyclodextrins and a hemicyanine dye, 271
- Solvent effect
- New fluorescent monomers and polymers displaying an intramolecular proton-transfer mechanism in the electronically excited state (ESIPT). Part II. Synthesis, spectroscopic characterization and solvatochromism of new benzazolylynylene derivatives, 81
- Photochemistry of anthrylethene derivatives containing heteroaromatic ring: Thiophene, furan, and their fused ring derivatives, 195
- Spectrophotometric titration
- Switchable fluorescence behaviors of pyronine Y at different pH values upon complexation with biquinolino-bridged bis( $\beta$ -cyclodextrin), 328
- Steady-state fluorescence
- Study on spectroscopic characterization of *meso*-tetrakis (4-hydroxyphenyl) porphyrin (THPP) in  $\beta$ -cyclodextrin and its derivatives, 258
- Spectral and photophysical properties of 2-dibenzofuranol and its inclusion complexes with cyclodextrins, 319
- Stokes shift
- Hydration dynamics of 4-aminophthalimide in a substituted  $\beta$ -cyclodextrin nanocavity, 334
- Substituent effect
- Photochemistry of anthrylethene derivatives containing heteroaromatic ring: Thiophene, furan, and their fused ring derivatives, 195
- Substituted 3H-indole
- Temperature dependence of the inclusion–dissociation behavior of the inclusion complexes between cationic substituted 3H-indoles and  $\beta$ -cyclodextrin. Design of a novel type of semi-rotaxane, 42
- Sugar cane bagasse
- Photodegradation of sugar cane bagasse acidolysis lignins, 150
- Sulfonylurea herbicides
- Photocatalytic degradation of a sulfonylurea herbicide over pure and tin-doped  $\text{TiO}_2$  photocatalysts, 13
- Sulphonated metallophthalocyanine
- Photophysical and photochemical studies of sulphonated non-transition metal phthalocyanines in aqueous and non-aqueous media, 211
- Surfactant
- A surfactant-assisted photochemical route to single crystalline HgS nanotubes, 93
- Temperature effect
- Temperature dependence of the inclusion–dissociation behavior of the inclusion complexes between cationic substituted 3H-indoles and  $\beta$ -cyclodextrin. Design of a novel type of semi-rotaxane, 42
- Terbium ions
- Optical response of thiosalicylic-capped CdS nanocrystals to terbium ions, 169
- Thiophene oligomers
- Effect of substituents on charge carrier dynamics in thiophene oligomers, 161
- Thiophene
- Photochemistry of anthrylethene derivatives containing heteroaromatic ring: Thiophene, furan, and their fused ring derivatives, 195

- Thiosalicylic acid  
Optical response of thiosalicylic-capped CdS nanocrystals to terbium ions, 169
- Time-resolved fluorescence  
Proton transfer involving a photoacid in Langmuir–Blodgett films of octadecylamine by time-resolved fluorescence spectroscopy, 75
- TiO<sub>2</sub>  
Photocatalytic degradation of a sulfonylurea herbicide over pure and tin-doped TiO<sub>2</sub> photocatalysts, 13
- Triplet lifetime  
Photophysical and photochemical studies of sulphonated non-transition metal phthalocyanines in aqueous and non-aqueous media, 211
- Triplet quantum yield  
Photophysical and photochemical studies of sulphonated non-transition metal phthalocyanines in aqueous and non-aqueous media, 211
- UV laser  
Changes in DRIFT spectra of wood irradiated by UV laser as a function of energy, 137
- UV–vis absorption  
Photodegradation of sugar cane bagasse acidolysis lignins, 150
- Viscosity  
Fluorescence resonance energy transfer from Fluorescein to Safranin T in solutions and in micellar medium, 221
- Visible light  
Photo-assisted degradation of anionic and cationic dyes over iron(III)-loaded resin in the presence of hydrogen peroxide, 121
- Wood  
Changes in DRIFT spectra of wood irradiated by UV laser as a function of energy, 137
- Zinc sulfide  
Nanoparticle mediated photodefluorination monitored by <sup>19</sup>F NMR, 156
- ZnO nanoparticles  
Photochemical synthesis and optical properties of binary and ternary metal–semiconductor composites based on zinc oxide nanoparticles, 185
- Zwitterionic species  
pH-Dependent excited-state proton transfer characteristics in 2-acetyl benzimidazole and 2-benzoyl benzimidazole in aqueous and non-aqueous media, 106