

Journal of Photochemistry and Photobiology A: Chemistry 90 (1995) 197-200 Journal of
PHOTOCHEMISTRY
AND
PHOTOBIOLOGY
A:CHEMISTRY

# Subject Index of Volume 90

# Absorbing gases

the absorption of pulsed CO<sub>2</sub> laser radiation by methylphosphine as a function of wavenumber, fluence, pulse duration, temperature, optical path length and pressure of absorbing and non-absorbing gases, 11

#### Absorption

the absorption of pulsed CO<sub>2</sub> laser radiation by methylphosphine as a function of wavenumber, fluence, pulse duration, temperature, optical path length and pressure of absorbing and non-absorbing gases, 11

# Alcohol solutions

photochemistry of IrCl<sub>6</sub><sup>2-</sup> complex in alcohol solutions, 31 Aminocoumarins

planar and twisted intramolecular charge transfer states of the excited proton transfer products of aminocoumarins, 53 2-Aminodiphenyl sulphone

solvatochromism and prototropism of diaminodiphenyl sulphones and 2-aminodiphenyl sulphone: a comparative study by electronic spectra, 109

# Bacteriorhodopsin

modification and photosensitization of size-quantized particulate CdS film photoelectrodes with bacteriorhodopsin (BR),

# Bilayer membrane

photostimulated vectorial electron transfer across the bilayer membrane of lipid vesicles in a system with CdS nanoparticles as photosensitizer and 1,4-bis(1,2,6-triphenyl-4pyridyl)benzene as a reversible two-electron carrier, 159

# Cadmium(II) sulfide

effect of platinum loading on the photocatalytic activity of cadmium(II) sulfide particles suspended in aqueous amino acid solutions, 75

# CO<sub>2</sub> laser radiation

the absorption of pulsed CO<sub>2</sub> laser radiation by methylphosphine as a function of wavenumber, fluence, pulse duration, temperature, optical path length and pressure of absorbing and non-absorbing gases, 11

# Colloid deposition

effect of platinum loading on the photocatalytic activity of cadmium(II) sulfide particles suspended in aqueous amino acid solutions, 75

# Conversion of light energy

some aspects of photochemical systems for direct light-induced hydrogen production, 141

# Copper ion

photochemistry in microemulsions: fluorescence quenching of 1- and 2-naphthol by Cu, 69

# Cryogenic studies

cryogenic studies, site selectivity and discrete fluorescence in salicylic acid dimer, 103

# Crystal violet

oxidation of crystal violet and malachite green in aqueous solutions — a kinetic spectrophotometric study, 177

### Deuterium

the preparation and photophysical measurements of perdeutero zinc phthalocyanine, 39

# Diaminodiphenyl sulphones

solvatochromism and prototropism of diaminodiphenyl sulphones and 2-aminodiphenyl sulphone: a comparative study by electronic spectra, 109

### Dicyanopyridines

photochemistry of dicyanopyridines, 137

# Diffuse reflectance laser flash photolysis

fullerenes bound to an insoluble polymeric phase: surface photophysical studies using diffuse reflectance laser flash photolysis (DRLFP), 65

### Dihalostilbenes

photolysis of trans- $\alpha$ , $\alpha'$ -dihalostilbenes, 57

# Diphenylacetylene

photolysis of trans-\alpha,\alpha'-dihalostilbenes, 57

# Direct photolysis

photolytic dechlorination of 4-chlorophenol in O<sub>2</sub>-saturated aqueous solutions in the absence of photocatalysts or additives using ArF\* (193 nm) and KrF\* (248 nm) excimer lasers, 183

# Effective volume

the influence of water structure on the rotational depolarization of fluorescence, 91

# Electron donor

hydrogen production from water by visible light using zinc porphyrin-sensitized platinized titanium dioxide, 153

# Electron relay molecules

some aspects of photochemical systems for direct light-induced hydrogen production, 141

# Electron transfer

photostimulated vectorial electron transfer across the bilayer membrane of lipid vesicles in a system with CdS nanoparticles as photosensitizer and 1,4-bis(1,2,6-triphenyl-4pyridyl)benzene as a reversible two-electron carrier, 159

# Energy pooling

a kinetic investigation of Sr[5s6s(1S<sub>0</sub>)] in energy pooling from Sr[5s5p(3P<sub>J</sub>)] studied by time-resolved atomic emission following pulsed dye-laser excitation, 1

# Energy transfer

fraction of excited-state oxygen formed as b  $^1\Sigma_{\rm g}^+$  in solution-phase-photosensitized reactions. II. Effects of sensitizer substituent, 85

# Excimer lasers

photolytic dechlorination of 4-chlorophenol in O<sub>2</sub>-saturated aqueous solutions in the absence of photocatalysts or additives using ArF\* (193 nm) and KrF\* (248 nm) excimer lasers, 183

# Excited proton transfer products

planar and twisted intramolecular charge transfer states of the excited proton transfer products of aminocoumarins, 53

# Excited state acidity constants

solvatochromism and prototropism of diaminodiphenyl sulphones and 2-aminodiphenyl sulphone: a comparative study by electronic spectra, 109

### Fluorescence

cryogenic studies, site selectivity and discrete fluorescence in salicylic acid dimer, 103

fluorometric study of solvation characteristics of ketocyanine dyes in mixed binary solvents, 171

#### Fluorescence quenching

photochemistry in microemulsions: fluorescence quenching of 1- and 2-naphthol by Cu, 69

### Fullerenes

fullerenes bound to an insoluble polymeric phase: surface photophysical studies using diffuse reflectance laser flash photolysis (DRLFP), 65

#### Halogenophenols

photolytic dechlorination of 4-chlorophenol in O<sub>2</sub>-saturated aqueous solutions in the absence of photocatalysts or additives using ArF\* (193 nm) and KrF\* (248 nm) excimer lasers, 183

### <sup>1</sup>H NMR

detailed investigation on a negative photochromic spiropyran, 117

### Hydrogen production

hydrogen production from water by visible light using zinc porphyrin-sensitized platinized titanium dioxide, 153

# Insoluble polymeric phase

fullerenes bound to an insoluble polymeric phase: surface photophysical studies using diffuse reflectance laser flash photolysis (DRLFP), 65

# IrCls2

photochemistry of IrCl<sub>6</sub><sup>2-</sup> complex in alcohol solutions, 31 Irradiation

hydrogen production from water by visible light using zinc porphyrin-sensitized platinized titanium dioxide, 153

# Ketocyanine dyes

fluorometric study of solvation characteristics of ketocyanine dyes in mixed binary solvents, 171

# Kinetic spectrophotometry

oxidation of crystal violet and malachite green in aqueous solutions — a kinetic spectrophotometric study, 177

# Laser flash photolysis

photochemistry of IrCl<sub>6</sub><sup>2-</sup> complex in alcohol solutions, 31 Loading

effect of platinum loading on the photocatalytic activity of cadmium(II) sulfide particles suspended in aqueous amino acid solutions, 75

# Malachite green

oxidation of crystal violet and malachite green in aqueous solutions — a kinetic spectrophotometric study, 177

# Mercury

Hg-sensitized photolysis of Me<sub>3</sub>SiH. I. A quantitative approach to the mechanism, 19

# Methylphosphine

the absorption of pulsed CO<sub>2</sub> laser radiation by methylphosphine as a function of wavenumber, fluence, pulse duration, temperature, optical path length and pressure of absorbing and non-absorbing gases, 11

#### Microemulsions

photochemistry in microemulsions: fluorescence quenching of 1- and 2-naphthol by Cu, 69

### 1-Naphthols

photochemistry in microemulsions: fluorescence quenching of 1- and 2-naphthol by Cu, 69

#### 2-Naphthols

photochemistry in microemulsions: fluorescence quenching of 1- and 2-naphthol by Cu, 69

### Negative photochromism

detailed investigation on a negative photochromic spiropyran,

#### Neutral radicals

photochemistry of dicyanopyridines, 137

# Non-absorbing gases

the absorption of pulsed CO<sub>2</sub> laser radiation by methylphosphine as a function of wavenumber, fluence, pulse duration, temperature, optical path length and pressure of absorbing and non-absorbing gases, 11

# Oxidation

oxidation of crystal violet and malachite green in aqueous solutions — a kinetic spectrophotometric study, 177

# Particulate CdS film photoelectrodes

modification and photosensitization of size-quantized particulate CdS film photoelectrodes with bacteriorhodopsin (BR), 167

# Pazelliptine

triplet excited-state characterization and determination of the photoionization mechanism of the antitumoral drug pazelliptine, 95

# pH effect

detailed investigation on a negative photochromic spiropyran, 117

# Photocatalytic activity

effect of platinum loading on the photocatalytic activity of cadmium(II) sulfide particles suspended in aqueous amino acid solutions, 75

# Photodynamic therapy

the preparation and photophysical measurements of perdeutero zinc phthalocyanine, 39

# Photoinduced electron transfer

some aspects of photochemical systems for direct light-induced hydrogen production, 141

# Photoionization mechanisms

triplet excited-state characterization and determination of the photoionization mechanism of the antitumoral drug pazelliptine, 95

# Photoisomerization

photolysis of  $trans-\alpha,\alpha'$ -dihalostilbenes, 57

# Photolysis

Hg-sensitized photolysis of Me<sub>3</sub>SiH. I. A quantitative approach to the mechanism, 19

photochemistry of IrCl<sub>6</sub><sup>2-</sup> complex in alcohol solutions, 31 Photolytic dechlorination

photolytic dechlorination of 4-chlorophenol in O<sub>2</sub>-saturated aqueous solutions in the absence of photocatalysts or additives using ArF\* (193 nm) and KrF\* (248 nm) excimer lasers, 183

# Photo-oxidation

primary radicals in the photo-oxidation of aromatics — reactions of xylenols with 'OH, N<sub>3</sub>' and H' radicals and formation and characterization of dimethylphenoxyl, dihydroxydimethylcyclohexadienyl and hydroxydimethylcyclohexadienyl radicals by pulse radiolysis, 125

### Photophysical studies

fullerenes bound to an insoluble polymeric phase: surface photophysical studies using diffuse reflectance laser flash photolysis (DRLFP), 65

# Photophysics

the preparation and photophysical measurements of perdeutero zinc phthalocyanine, 39

### Photoproduction of hydrogen

some aspects of photochemical systems for direct light-induced hydrogen production, 141

### Photosensitization

hydrogen production from water by visible light using zinc porphyrin-sensitized platinized titanium dioxide, 153

modification and photosensitization of size-quantized particulate CdS film photoelectrodes with bacteriorhodopsin (BR), 167

#### Photosensitizer

some aspects of photochemical systems for direct light-induced hydrogen production, 141

photostimulated vectorial electron transfer across the bilayer membrane of lipid vesicles in a system with CdS nanoparticles as photosensitizer and 1,4-bis(1,2,6-triphenyl-4pyridyl)benzene as a reversible two-electron carrier, 159

### Picosecond pump-probe spectroscopy

picosecond polarized pump-probe spectroscopy of amylose-iodine, 45

### Planar intramolecular charge transfer states

planar and twisted intramolecular charge transfer states of the excited proton transfer products of aminocoumarins, 53

#### Platinum

effect of platinum loading on the photocatalytic activity of cadmium(II) sulfide particles suspended in aqueous amino acid solutions, 75

# Polyiodides

picosecond polarized pump-probe spectroscopy of amylose-

# Polymers

picosecond polarized pump-probe spectroscopy of amylose-iodine, 45

# Primary radicals

primary radicals in the photo-oxidation of aromatics — reactions of xylenols with 'OH, N<sub>3</sub>' and H' radicals and formation and characterization of dimethylphenoxyl, dihydroxydimethylcyclohexadienyl and hydroxydimethylcyclohexadienyl radicals by pulse radiolysis, 125

# Prototropism

solvatochromism and prototropism of diaminodiphenyl sulphones and 2-aminodiphenyl sulphone: a comparative study by electronic spectra, 109

# Pulsed dye-laser excitation

a kinetic investigation of Sr[5s6s(1S<sub>0</sub>)] in energy pooling from Sr[5s5p(3P<sub>1</sub>)] studied by time-resolved atomic emission following pulsed dye-laser excitation, 1

# Pulse radiolysis

primary radicals in the photo-oxidation of aromatics -- reactions of xylenols with 'OH, N<sub>3</sub>' and H' radicals and formation and characterization of dimethylphenoxyl, dihydroxydimethylcyclohexadienyl and hydroxydimethylcyclohexadienyl radicals by pulse radiolysis, 125

oxidation of crystal violet and malachite green in aqueous solutions — a kinetic spectrophotometric study, 177

# Radical anions

photochemistry of dicyanopyridines, 137

# Radicals

oxidation of crystal violet and malachite green in aqueous solutions — a kinetic spectrophotometric study, 177

# Rotational depolarization

the influence of water structure on the rotational depolarization of fluorescence, 91

### Salicylic acid dimer

cryogenic studies, site selectivity and discrete fluorescence in salicylic acid dimer, 103

### Sensitization

Hg-sensitized photolysis of Me<sub>3</sub>SiH. I. A quantitative approach to the mechanism, 19

#### Site selectivity

cryogenic studies, site selectivity and discrete fluorescence in salicylic acid dimer, 103

# Solution-phase singlet sigma oxygen

fraction of excited-state oxygen formed as b  $^{1}\Sigma_{g}^{+}$  in solution-phase-photosensitized reactions. II. Effects of sensitizer substituent, 85

#### Solvation

fluorometric study of solvation characteristics of ketocyanine dyes in mixed binary solvents, 171

#### Solvatochromism

solvatochromism and prototropism of diaminodiphenyl sulphones and 2-aminodiphenyl sulphone: a comparative study by electronic spectra, 109

detailed investigation on a negative photochromic spiropyran,

# Spiropyran

detailed investigation on a negative photochromic spiropyran,

### Starch-iodine complex

picosecond polarized pump-probe spectroscopy of amylose-iodine, 45

# Time-resolved atomic emission

a kinetic investigation of Sr[5s6s(1S0)] in energy pooling from Sr[5s5p(3P1)] studied by time-resolved atomic emission following pulsed dye-laser excitation, 1

# Titanium dioxide

hydrogen production from water by visible light using zinc porphyrin-sensitized platinized titanium dioxide, 153

# Triplet state

triplet excited-state characterization and determination of the photoionization mechanism of the antitumoral drug pazelliptine, 95

# Triplet state orbital configuration

fraction of excited-state oxygen formed as b  $^1\Sigma_{\rm s}^+$  in solution-phase-photosensitized reactions. II. Effects of sensitizer substituent, 85

# Triplet states

photochemistry of dicyanopyridines, 137

# Twisted intramolecular charge transfer

solvatochromism and prototropism of diaminodiphenyl sulphones and 2-aminodiphenyl sulphone: a comparative study by electronic spectra, 109

# Twisted intramolecular charge transfer states

planar and twisted intramolecular charge transfer states of the excited proton transfer products of aminocoumarins, 53

# Ultraviolet photolysis

photolytic dechlorination of 4-chlorophenol in O<sub>2</sub>-saturated aqueous solutions in the absence of photocatalysts or additives using ArF\* (193 nm) and KrF\* (248 nm) excimer lasers, 183

# Water structure

the influence of water structure on the rotational depolarization of fluorescence, 91

# **Xylenols**

primary radicals in the photo-oxidation of aromatics - reactions of xylenols with 'OH, N<sub>3</sub>' and H' radicals and forma-

tion and characterization of dimethylphenoxyl, dihydroxydimethylcyclohexadienyl and hydroxydimethylcyclohexadienyl radicals by pulse radiolysis, 125

# Zinc phthalocyanine

the preparation and photophysical measurements of perdeutero zinc phthalocyanine, 39