

DYES AND PIGMENTS

Papers Published in Vols 27–29

CONTENTS OF VOLUME 27

Number 1

- 1 Chemiluminescent Properties of Some Luminol Related Compounds
J. ISHIDA, M. TAKADA, T. YAKABE & M. YAMAGUCHI (Japan)
- 9 Synthesis of Donor–Acceptor Substituted Quinonemethide Imines for Nonlinear Optical Materials
T. ITOH, H. IWAYAMA & S. IWATSUKI (Japan)
- 17 Further Studies of the Use of Chitosan in the Dyeing of Full Chrome and Heavily Retanned Leather with Anionic Dyes
S. M. BURKINSHAW & L. KITCHING (UK)
- 35 Colour and Constitution Relationships in Organic Pigments. Part 5: The Influence of Solvents, the Central Metal Atom and Substituents on the Electronic Spectra of Phthalocyanines
R. M. CHRISTIE (UK)
- 45 Long Wavelength Absorbing Azo Dyes Derived from 2-Amino-4-Chloro-5-Formylthiazole as Diazo Component
K. A. BELLO (Nigeria)
- 55 Photochemical Stability of Sulphorhodamine B
J. HAY, C. RANSON & J. K. SUGDEN (UK)
- 63 On the Acid Catalysed Isomerisation of Some Substituted Spirobenzopyrans
C. J. ROXBURGH & P. G. SAMMES (UK)
- 71 A Study of the Reaction between Diazotized 2-Amino-1,4-Benzenedisulphonic Acid and 8-Amino-1-Naphthol-3,6-Disulphonic Acid. Part II
V. DLASK & J. PLOCEK (Czech Republic)

Number 2

- 77 Thirty-Five Years of Studies on the Chemistry of Polymethine Cyanine Dyes
Z. ZHU (People's Republic of China)
- 113 The Dyeing of Lyocell Fabric with Direct Dyes
S. M. BURKINSHAW & R. KRISHNA (UK)
- 123 New Analytical Method of Dye Aggregation using PCA Method
M. HIDA (Japan)
- 133 Tautomeric Equilibrium in 1-Phenylazo-2-Naphthol—A Quantitative Study
L. ANTONOV, S. STOYANOV & T. STOYANOVA (Bulgaria)

Papers published in Vols 27–29

- 143 Perfluoroalkylation of Quinolinones and Phenoxazones with Bis(perfluoroalkanoyl) Peroxides
M. MATSUI, H. ISHIKAWA, K. HIRAMATSU, K. SHIBATA &
H. MURAMATSU (Japan)
- 153 Synthesis and Characterization of Unsymmetrical Benzimidazolindo-Carbocyanines
Q. LI & B.-X. PENG (People's Republic of China)
- 163 A Study of the Reaction between Diazotized 4-Aminobenzenesulphonic Acid and
8-Amino-1-naphthol-3,6-disulphonic Acid. Part 1
V. DLASK, J. PLOCEK & J. KRÁLOVSKÝ (Czech Republic)

Number 3

- 169 A Study of the Dyeing of Cotton with Commercial Dichlorotriazinyl Reactive Dyes
Z. BAHRINI & S. M. BURKINSHAW (UK)
- 183 New Reactive Dyes Containing Fluorine Substituents in the Vinylsulfone Group
L. M. YAGUPOLSKII, L. I. MOKLYACHUK, M. M. KREMLEV (Ukraine),
M. YA. RYABTSEVA & M. V. GORELIK (Russia)
- 191 Diffusion Behaviour of Charge Carriers in Thin Films of Phthalocyanines
H. TIAN & K.-C. CHEN (People's Republic of China)
- 197 Fate of Dyes in Aquatic Systems. Part 3: The Role of Suspended Sediments in
Adsorption and Reaction of Acid and Direct Dyes
G. L. BAUGHMAN (USA)
- 211 Alteration of Properties of Natural Pigments by Conjugation with Fibroin or
Polyethylene Glycol
A. ISHII, M. FURUKAWA, A. MATSUSHIMA, Y. KODERA, A. YAMADA, H. KANAI &
Y. INADA (Japan)
- 219 Spectrophotometric Investigation of the Complex Formation of Aza-15-Crown-5
Containing Styryl Dyes with Ba²⁺ and Ca²⁺ Cations
M. MITEWA, N. MATEEVA, L. ANTONOV & T. DELIGEORGIEV (Bulgaria)
- 227 Synthesis of 1-Formylazulene Derivatives and Absorption Spectra of New Azomethine
Dyes Containing an Azulene Ring
K. TAKAGI, A. MIZUNO, H. IWAMOTO, S. NISHIDA, T. HASHIKAWA, K. HAZAMA &
T. NOZOE (Japan)
- 237 Colour and Constitution Relationships in CI Acid Red 138 and its Homologues
ST. STOYANOV (Bulgaria), T. IJIMA (Japan), T. STOYANOVA &
L. ANTONOV (Bulgaria)
- 249 Synthesis and Fluorescence Behaviour of Some 3-Cyano-4-Substituted-6-Pyrenyl-2-
Pyridone Derivatives
J. J. CHEN & I. J. WANG (Taiwan)
- 261 Book Review

Number 4

- 263 Synthesis of Some New Thiapyrylium and Pyrylium Laser Dyes
J. ZHANG & Z. ZHU (People's Republic of China)
- 271 Adsorption of Histidine on Cellulose and its Effect on Histidine Coordination to Copper-Complex Azo Dyes on Cellulose
Y. OKADA, T. KAWANISHI & Z. MORITA (Japan)
- 287 Nitration of Carbazole and *N*-Alkylcarbazoles
ZHANG SHUFEN, ZHOU DANHONG & YANG JINZONG (People's Republic of China)
- 297 Formulation of an Invisible Infrared Printing Ink
M. YOUSAF & M. LAZZOUNI (USA)
- 305 Improved Chemical Resistance of Epoxy Resin-Based Coating Compositions
P. KALENDA & A. KALEDOVÁ (Czech Republic)
- 313 The Synthesis of Some Hetarylazopyridone Dyes and Solvent Effects on Their Absorption Spectra
N. ERTAN & F. EYDURAN (Turkey)
- 321 Synthesis of 1,8-Naphthalimide Anhydride Derivatives for use as Fluorescent Brightening Agents for Polymeric Materials
I. GRABTCHEV & TZ. PHILIPOVA (Bulgaria)
- 327 CNDO/II Study on the Fading of Anthraquinone Dyes
A. RAY & G. M. DEHERI (India)
- 333 Heat-Induced Voltage Generation in Hexadecyl Merocyanine Dye-Probed Planar Lipid Membranes
S. DAS, R. BASU, A. GHOSE (India), M. MINCH (USA) & P. NANDY (India)
- 339 Syntheses of Uncharged, Positively and Negatively Charged 3,4,9,10-Perylene-Bis(Dicarboximides)
G. SCHNURPFEL, J. STARK & D. WÖHRLE (Germany)
- 351 Corrigendum
- 353 Contents of Volume 27

CONTENTS OF VOLUME 28

Number 1

- 1 Photostability, Laser Energy Conversion Efficiency and Absorption of IR Heptamethine Cyanine Dyes Absorbing Beyond 1 μm
J. ZHANG, W. LUO & Z. ZHU (People's Republic of China)
- 7 A New Application of Rhodamine 200 B (Sulfo Rhodamine B)
N. O. MCHEDLOV-PETROSSYAN, S. A. SHAPOVALOV, S. I. EGOROVA,
V. N. KLESHCHEVNIKOVA (Ukraine) & E. ARIAS CORDOVA (Peru)
- 19 Blending Polypropylene with Hydrogenated Oligocyclopentadiene: A New Method for the Production of Dyeable Fibers
A. SEVES, T. DE MARCO, A. SICILIANO, E. MARTUSCELLI &
B. MARCANDALLI (Italy)

Papers published in Vols 27–29

- 31 Azo-Quinonehydrazone Tautomerism in 2-Phenylazo-1-Naphthol
L. ANTONOV & S. STOYANOV (Bulgaria)
- 41 Synthesis of Some Unsaturated 1,8-Naphthalimide Dyes
I. GRABCHEV (Bulgaria), P. MEALLIER (France), T. KONSTANTINOVA &
M. POPOVA (Bulgaria)
- 47 Electronic Spectroscopy and Trichromaticity Colorimetry of Some Inorganic Pigments
and their Mixtures
T. TŁACZAŁA & A. BARTECKI (Poland)
- 57 Reactions of β -Sulphatoethyl Sulphone Crosslinking Agent with Wool. Part IV:
Topochemistry of Reactions by Fractionation and Extraction
B. M. SMITH, P. L. SPEDDING (UK), M. S. OTTERBURN (USA) & D. M. LEWIS (UK)
- 69 Q-Band Electronic Absorption of Silicon 2,3-Naphthalocyanine Bis(Trihexylsilyloxyde)
in Various Solvents
M. YOUSAF & M. LAZZOUNI (USA)
- 77 Photostabilization of Chlorophyll *a* Adsorbed onto Smectite
A. ISHII, T. ITOH, H. KAGEYAMA, T. MIZOGUCHI, Y. KODERA, A. MATSUSHIMA,
K. TORII & Y. INADA (Japan)

Number 2

- 83 Methine and Azamethine Dyes Derived from 2-Pyridone
K. A. BELLO (Nigeria)
- 91 Absorption Spectra of some *N*-Substituted-1,8-Naphthalimides
T. PHILIPOVA, I. KARAMANCHEVA & I. GRABCHEV (Bulgaria)
- 101 Reactions of β -Sulphatoethyl Sulphone Crosslinking Agent with Wool. Part V: Effects
during Reactive Dyeing
B. M. SMITH, P. L. SPEDDING (UK), M. S. OTTERBURN (USA) & D. M. LEWIS (UK)
- 123 Dyeing of Polyester with CI Disperse Yellow 42 in the Presence of Various
UV-Absorbers. Part II
E. G. TSATSARONI & A. H. KEHAYOGLOU (Greece)
- 131 Unsymmetrical Azines of 4-Acetyl-3-Methyl-1-Phenyl-5-Pyrazolone. Spectral
Characteristics and Structure
I. TIMTCHEVA, A. PENTCHEV, ST. METSOV, SN. BAKALOVA, V. KOLEVA &
P. NIKOLOV (Bulgaria)
- 139 Derivatives of 14H-Naphtho[2,3-*a*]Phenothiazine-8,13-Dione. Part 1: Syntheses
from 2-(3-)Substituted-1,4-Dihydroxy(amino)anthraquinones
A. T. PETERS & N.-J. WANG (UK)

Number 3

- 151 Monoazo Disperse Dyes Derived from Nitro-2-Aminobenzothiazoles
A. T. PETERS, S. S. YANG (UK) & E. CHISOWA (Zambia)

Papers published in Vols 27–29

- 165 A Study of the Reaction Between Diazotized 2-Aminobenzenesulphonic Acid and 8-Amino-1-Naphthol-3,6-Disulphonic Acid
V. DLASK, J. PLOCEK, J. KRÁLOVSKÝ & A. NĚMCOVÁ (Czech Republic)
- 171 Improved Fixation of Dyes on Polyamide Fibres. Part 1: Using 1,3,5-Triacroylamino-Hexahydro-*s*-Triazine as a Crosslinking Agent
D. M. LEWIS & Y. C. HO (UK)
- 193 Recycling of Exhausted Reactive Dyebaths
S. M. BURKINSHAW & C. GRAHAM (UK)
- 207 ¹H, ¹³C and ¹⁵N NMR Spectra of Some Anthracenedione Phenylhydrazones
A. LYČKA, J. JIRMAN (Czech Republic) & H. MUSTROPH (Germany)
- 217 A Perturbational Molecular Orbital Method for the Absorption Spectra of Aromatic Compounds
M. HIDA (Japan)
- 233 Book Reviews

Number 4

- 237 Improved Fixation of Dyes on Polyamide Fibres. Part 2: Use of the Reactive Crosslinking Agent, 2-Chloro-4,6-Di(Aminobenzene-4'-Sulphatoethylsulphone)-*s*-Triazine (XLC)
D. M. LEWIS & Y. C. HO (UK)
- 261 Application of the Quasi-Long Chain Approximation to Structural Perturbations in Polymethine Dyes
M. L. DEKHTYAR (Ukraine)
- 275 Fluorescence Quenching of Viologen on Xanthene Dyes in Dyads
L.-C. SUN, Y.-F. YANG, J.-J. HE & T. SHEN (People's Republic of China)
- 281 Derivatives of 14H-Naphtho[2,3-*a*]Phenothiazine-8,13-Dione. Part 2: Syntheses from 1,4-Dihydroxy-5-(6-,7-,8-)Substituted Anthraquinones
A. T. PETERS & N.-J. WANG (UK)
- 291 Syntheses of 1,2-Bis[5-(2'-Benzoxazolyl)-Pyrrole-2-yl] Ethene
Q.-Q. CHEN, F. YAN, J.-S. MA & S. JIN (People's Republic of China)
- 297 Syntheses with Nitriles. Part 96: Colorformers Based on Pyrazolomalononitriles—Synthesis, Properties and Structure—Color Relationships
R. DWORCZAK, W. M. F. FABIAN, P. BIZA, M. WEIKMANN & H. JUNEK (Austria)
- 317 Substituent Tuning of Photoreversible Lithium Chelating Agents
C. J. ROXBURGH & P. G. SAMMES (UK)
- 327 The Influence of Chain Length and Electron Acceptor Residues in 3-Substituted 7-*N,N*-Diethylaminocoumarin Dyes
J. GRIFFITHS, V. MILLAR & G. S. BAHRA (UK)
- 341 Contents of Volume 28

CONTENTS OF VOLUME 29

Number 1

- 1 Design and Properties of Reactive Dyes with Heterobifunctional Reactive Systems
T. OMURA, K. YOKOGAWA, Y. KAYANE & Y. TEZUKA (Japan)
- 23 The Characterisation of Treated and Dyed Hair
J. T. GUTHRIE, A. KAZLAUCIUNAS, L. RONGONG & S. RUSH (UK)
- 45 Synthesis of Fluoran Dyes with Improved Properties
SHEN MEIQIN, SHI YUN & TAO QIYU (People's Republic of China)
- 57 Synthesis and Colour Properties of Some Copper Complexes of Tetradenate
Formazan Dyes
ZHANG YUZHEN & LIU DONGZHI (People's Republic of China)
- 65 Syntheses with Nitriles. Part 97: Push–Pull Diarylbutadienes and Diarylpentadienes:
Known Chromophores—New Facts
R. DWORCZAK, W. M. F. FABIAN, B. N. PAWAR & H. JUNEK (Austria)
- 77 Liquid Crystalline Behaviour of Some Azobenzene Dyes
D. CAMPBELL, L. R. DIX & P. ROSTRON (UK)
- 85 Synthesis of Amphiphilic Styrylpyridinium and Styrylquinolinium Hemicyanines and
Merocyanines
F. LEHMANN (Germany), G. J. MOHR (Austria), P. CZERNEY &
U.-W. GRUMMT (Germany)

Number 2

- 95 Software Review: PISYSTEM for Windows Version 3.1. A Program for the
Calculation of Excited State Properties Including Colour of π Electron-Based
Molecules
M. G. HUTCHINGS (UK)
- 103 Azo Dyes Derived from 4(5)-Cyano-5(4)-Hydroxyimidazole
A. T. PETERS, C. T. WU (UK), G. VISCARDI & E. BARNI (Italy)
- 117 Heterocyclic Monoazo Dyes Derived from 3-Cyano-2(1H)-Pyridinethiones. Part 1:
3-(Aryl or Hetaryl)azo-Thieno[2,3-*b*]pyridine Derivatives
Y. W. HO & I. J. WANG (Taiwan)
- 131 Disazo Direct Dyes Derived from 4,4'-Diamino Derivatives of Benzanilide,
Diphenylamine-2-Sulfonic Acid and Stilbene-2,2'-Disulfonic Acid
Y. C. CHAO & S. S. YANG (Taiwan)
- 139 A Study of the Wash-off and Aftertreatment of Dichlorotriazinyl Reactive Dyes on Cotton
S. M. BURKINSHAW & D. KATSARELIAS (UK)
- 155 The Synthesis and Properties of Some Triazine–Stilbene Fluorescent Brighteners
I. GRABCHEV (Bulgaria)

Papers published in Vols 27–29

- 161 An Investigation of Organic Dye-Coloured Nacreous Pigments
WANG SHIRONG, WU JINLIANG & ZHOU CHUNLONG (People's Republic of China)
- 169 Synthesis, Characterization, and Thermal Stability of Cobalt Polymeric
Phthalocyanines from 3,3',4,4'-Benzophenonetetracarboxylic Dianhydride
J. H. TIAN & I. J. WANG (Taiwan)

Number 3

- 181 A Structural Model for Square Planar Metal Polymeric Phthalocyanines Synthesized
from 3,3',4,4'-Benzophenonetetracarboxylic Dianhydride
J. H. TIAN & I. J. WANG (Taiwan)
- 191 Heat-Induced Structural Changes in Merocyanine Dyes: X-Ray and Thermal Studies
S. DAS, R. BASU (India), M. MINCH (USA) & P. NANDY (India)
- 203 Effect of Enzymatic Treatment on the Dyeing of Cotton and Wool Fibres with Natural
Dyes
E. TSATSARONI & M. LIAKOPOULOU-KYRIAKIDES (Greece)
- 211 Synthesis of Some New Coumarins as Potential Laser Dyes in the Blue–Green Region.
Part 2: Synthesis of 1,1,7,7-Tetramethyl-2,3,6,7-Tetrahydro-1H,5H,11H-[1]-
Benzopyrano[6,7,8-*i,j*]Quinolizine-10-Phenyl-11-Ones
G. S. P. B. LAKSHMI, Y. L. N. MURTHY, A. S. R. ANJANEYULU &
C. SANTHAMMA (India)
- 227 Spectrophotometric Study of the Prototropic Equilibrium of Methyl Red in
Organic Solvents
G. SEU (Italy)
- 241 An Investigation of the Electronic Spectral Properties of the Merocyanines Derived
from Photochromic Spiroindolinonaphth[2,1-*b*][1,4]oxazines
R. M. CHRISTIE, C. K. AGYAKO & K. MITCHELL (UK)
- 251 Structure–Affinity Binding Relationships of Some 4-Aminoazobenzene Derivatives
for Cellulose Fibre
S. TIMOFEI, L. KURUNCZI, W. SCHMIDT & Z. SIMON (Romania)
- 259 Book Reviews

Number 4

- 263 Solvatochromism of Stilbazolium Merocyanine-Type Dyes Containing a
Benzoquinolinizinium Ring
S. ARAI, M. HIDA & T. YAMAGISHI (Japan)
- 275 Substituted Thiol Derivatives of Vinyl Sulphone Dyes
D. M. LEWIS & S. M. SMITH (UK)
- 295 Heterocyclic Monoazo Dyes Derived from 3-Cyano-2(1H)-Pyridinethione.
Part 2: 2-[4-(Arylazo)-3,5-Disubstituted-Pyrazol-1-yl]Carbonyl]-Thieno[2,3-*b*]
Pyridine Derivatives
Y. W. HO & I. J. WANG (Taiwan)

Papers published in Vols 27–29

- 305 Synthesis and Colour Assessment of Some 3-Cyano-4-Pyrenyl-6-Substituted-2-Pyridone Derivatives
J. J. CHEN & I. J. WANG (Taiwan)
- 315 Preparation of Intercalating Dye Thiazole Orange and Derivatives
T. G. DELIGEORGIEV, N. I. GADJEV (Bulgaria), K.-H. DREXHAGE (Germany) & R. W. SABNIS (USA)
- 323 Aftertreatments to Improve the Wash Fastness of Sulphur Dyeings on Cotton
S. M. BURKINSHAW & G. W. COLLINS (UK)
- 345 Visible Absorption Spectra of Aryl-*p*-Benzoquinones by Modified PPP MO Calculation
Y. INOUE, K. OKUMURA, H. KITAJIMA, I. TAKAHASHI, T. MORITA & M. MATSUOKA (Japan)
- 355 The Electron Affinity of Methylene Blue in the Gas Phase
A. STANIENDA (Germany)
- 359 Contents of Volume 29