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List of papers presented (oral and poster) at the Third Asian Photochemistry Conference (APC-2002) incorporating the Sixth Trombay Symposium on Radiation and Photochemistry

Only the address of the presenting author (marked with asterisk) is given in the following list.

Abbreviations: BARC: Bhabha Atomic Research Centre, IACS: Indian Association for the Cultivation of Science, IISc: Indian Institute of Science, IIT: Indian Institute of Technology, RRL: Regional Research Laboratory, SINP: Saha Institute of Nuclear Physics, TIFR: Tata Institute of Fundamental Research.

1. Isomerization in the photochemistry of aromatic hydrocarbons
   Yuan Tseh Lee
   Academia Sinica, Nankang, Taipei, Taiwan

2. Primary processes of spectral sensitization in photography
   Keitrao Yoshihara, Igor V Rubtsov, Kojiro Ebina, Ji-Won Oh, Shigeichi Kumazaki, Takeshi Suzumoto and Tadaaki Tani*
   School of Materials Science, Japan Advanced Institute of Science and Technology, Tatsunokuchi, Ishikawa 923-1292, Japan

3. Dynamics in confined systems
   Kankan Bhattacharyya
   Physical Chemistry Department, IACS, Kolkata 700 032, India

4. Nonlinear photochromic reaction of spirooxazine and spiropyran microcrystals induced by femtosecond laser excitation
   *Mototsugu Suzuki, Tsuyoshi Asahi and Hiroshi Masuhara**
   Department of Applied Physics, Osaka University, Suita 565-0871, Japan

5. Luminescence studies of platinum(II) alkynyl complexes and their mixed-metal platinum(II)–copper(I) and silver(I) complexes
   Vivian Wing-Wah Yam
   Department of Chemistry, University of Hong Kong, Pokfulam Road, Hong Kong, P.R. China

6. Ultrafast laser-induced electron transfer: Electronic coupling, coherence effects
   F Willig, C Zimmermann, S Ramakrishnan, R Eichberger and W Storck*
   Hahn-Meitner-Institute, Glienicker Str. 100, D-14109, Berlin, Germany

7. The studies on small free radical reactions by using time resolved FT-IR spectroscopy
   Fanao Kong
   Institute of Chemistry, Chinese Academy of Sciences, Beijing, P.R. China 100080

8. Designing photosystems for harvesting photons into electrons by sequential electron transfer processes: One electron reductive activations of α, β-unsaturated carbonyl compounds
   Ganesh Pandey
   Division of Organic Chemistry (Synthesis), National Chemical Laboratory, Pune 411 008, India

9. Photoinduced charge-separation and charge-recombination of C_{60}-donor linked fullerenes
Osamu Ito, Yasuyuki Araki and Mamoru Fujitsuka*
IMRAM and CREST, Tohoku University, Sendai, Japan

10. Scanning probe microscopy and proximity effects
Masahiko Hara
Local Spatio-Temporal functions Laboratory, Frontier Research System, RIKEN, Wako, Saitama, 351-0198, Japan

11. Picosecond dynamics of photoinduced stepwise double electron transfer reaction in the 2-aminopyridine/acetic acid system
*H Ishikawa, K Iwata and H Hamaguchi**
Department of Chemistry and Research Centre for Spectrochemistry, School of Science, University of Tokyo, Tokyo 113, Japan

12. Structure-reactivity of excited states quinones: Time-resolved resonance Raman (TR3) and Density Functional theoretical (DFT) study
S Umapathy
Department of Inorganic and Physical Chemistry, IISc, Bangalore 560 012, India

13. Localised photochemistry with multiphoton excitation: Measuring size and stability of biomolecules
J Balaji, K Garai and S Maiti*
Department of Chemical Sciences, TIFR, Homi Bhabha Road, Mumbai 400 005, India

14. Photochemical generation and reactions of Triplet Di(9-anthryl) carbene
Hideo Tomioka, Yoshihiro Nozaki, Eri Iwamoto and Katsuyuki Hirai*
Chemistry Department for Materials, Faculty of Engineering, Mie University, Tsu, Mie 514-8507, Japan

15. Photoreactions in benzophenone/1,4-cyclohexadiene clusters
Kinichi Obi and Akio Kawai*
Department of Chemical and Biological Sciences, Japan Women's University, 2-8-1, Mejirodai, Bunkyoku, Tokyo 112-8681, Japan

16. Theory of the electric field effect on fluorescence quenching due to electron transfer
Masanori Tachiya
National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Ibaraki 305-8565, Japan

17. State resolved dissociation dynamics of HOCl near threshold
Amitabha Sinha
Department of Chemistry and Biochemistry, University of California – San Diego 9500 Gilman Drive, La Jolla, CA 92093-0314, USA

18. Application of time-resolved Fourier-transform spectroscopy to photo-induced systems: Reaction intermediates and kinetics
Yuan-Pern Lee
Department of Chemistry, National Tsing Hua University, Hsinchu 30013, Taiwan

19. Photoinduced reactions in mass-selected complexes M^+L_n (M = alkaline metal atoms; L = organic molecules)
Shihe Yang
Department of Chemistry, Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong

20. Spectroscopy of cooled and trapped atoms and molecules
B N Jagtap
Laser and Plasma Technology Division, BARC, Mumbai 400 085, India

21. Excited state studies of linear polyenes and related protein photoreceptors
Anil K Singh
Department of Chemistry, IIT – Bombay, Mumbai 400 076, India

22. Subpicosecond dynamics of the excited states of LDS 821 in solutions
D K Palit
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

23. Novel strategy for long-lived charge-separation
Kyung Byung Yoon
Centre for Microcrystal Assembly and Department of Chemistry, Sogang University, Seoul 121-742, Korea

24. Photodissociation dynamics of carboxylic acids: The OH reaction channel
P D Naik, H P Upadhyaya, Awadhesh Kumar, D K Maity, A V Sapre and J P Mittal*
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

25. Effect of alkali-metal ions on the photooxygenation of aromatic alkenes in zeolite nanocavities
Masanobu Kojima
Department of Bioscience and Biotechnology, Faculty of Agriculture, Shinshu University, 8304 Minami-minowa, Nagano 399-4598, Japan

26. Photoexcitation dynamics of porphyrin arrays as revealed by electric field effects on fluorescence
Nobuhiro Ohta, Yuji Iwaki, Naoki Aratani and Atsuhiro Osuka*
Research Institute for Electronic Science, Hokkaido University, Sapporo 060-0812, Japan

27. Photolysis of *o*-quinodimethane in room temperature solutions
Akihiko Ouchi
National Institute of Advanced Industrial Science and Technology, Tsukuba, Ibaraki 305-8565, Japan

28. Photochemical and photophysical studies of donor/acceptor–substituted butadiene liquid crystals
Suresh Das
Photochemistry Research Unit, RRL (CSIR), Thiruvananthapuram 695 019, India

29. Conformational switching and exciton interactions in hemicyanine based bichromophores
K George Thomas
Photochemistry Research Unit, RRL (CSIR), Thiruvananthapuram 695 019, India

30. Oxygen 18 separation by IRMPD
Tetsuro Majima
Institute of Scientific and Industrial Research (SANKEN), Osaka University, Mihogaoka 8-1, Ibaraki, Osaka 567-0047, Japan

31. Highly stereoselective photocycloaddition via exciplexes
Kazuhiko Mizuno
Department of Applied Chemistry, Graduate School of Engineering, Osaka Prefecture University, 1-1 Gakuen-cho, Sakai, Osaka 599-8531, Japan

32. Singlet oxygen–superior hardware and recent advances
J C Penedo, D U Nather and E Blackwood*
Edinburgh Instruments Ltd., 2 Bain Square, Kirkton Campus, Livingston, EH54 7 DQ, UK

33. Intramolecular charge transfer in micelle and cyclodextrin: Photophysics and applications for molecule recognition and chemical sensing
Yun-Bao Jiang, Li-Rong Lin, Hong Chen and Li-Hua Ma*
Department of Chemistry and the MOE Key Laboratory of Analytical Sciences, Xiamen University, Xiamen 361005, China

34. Light-emitting molecular rectangles
Kuang-Lieh Lu
Institute of Chemistry, Academia Sinica, Taipei 115, Taiwan

35. Coherent vibrational motion during excited-state intramolecular proton transfer
*Re-Ming R Hsieh, Jui-Ying Lin, Charlene Su and Po-Yuan Cheng**
Department of Chemistry, National Tsing Hua University, Hsinchu, Taiwan

36. Gas phase supersonic studies of the H-bonded complexes of *para*-substituted phenols
Sanjay Wategaonkar
Department of Chemical Sciences, TIFR, Homi Bhabha Road, Mumbai 400 005, India

37. Interfacial electron transfer dynamics in dye sensitized TiO_2 nano-particles
Hirendra N Ghosh
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

38. Photophysical and photochemical properties of 1,4-tetracenequinone in solution
Minoru Yamaji, Takao Itoh, Shizuka Haruo and Seiji Tobita*
Department of Chemistry, Gunma University, Kiryu, Gunma 376-8515, Japan

39. Exciplex parameters of N-ethyl carbazole-dimethyl terephthalate system
Sharmistha Dutta Choudhury, Suchandra Bandyopadhyay and Samita Basu*
Chemical Sciences Division, SINP,1/AF, Bidhannagar, Kolkata 700 064, India

40. Photochemistry of some carbonyl compounds in the presence of amines and titanium dioxide
Sung Sik Kim
Department of Chemistry, Chonbuk National University, Chonju 561-756, Korea

41. Laser flash photolysis studies on a novel synthesized bichromophore containing 4-methoxybenzom [*b*]thiophene and *p*-chloroacetophenone as reacting partners
*Manisankar Maiti and Tapan Ganguly**
Department of Spectroscopy, IACS, Jadavpur, Kolkata 700 032, India

42. Photophysics of phenyldibenzophosphole
*Tanushree Bhattacharya and Tapan Ganguly**
Department of Spectroscopy, IACS, Jadavpur, Kolkata 700 032, India

43. Femtosecond dynamics in she S_2 state of a triphenylmethane dye, malachite green
A C Bhasikuttan, A V Sapre and T Okada*
Department of Chemistry, Graduate School of Engineering Science, Osaka University, Toyonaka, Osaka, 560 8531, Japan

44. Probing phase transitions in frozen solvents by fluorescence
*V V N Ravi Kishore and N Periasamy**
Department of Chemical Sciences, TIFR, Homi Bhabha Road, Colaba, Mumbai 400 005, India

45. Intra- and inter-molecular ($2p+2p$) photocycloaddition and cycloreversion of ferulic acid derivatives
*Keisuke Nishimura, Hisaji Taniguchi, Akira Sugimoto and Kazuhiko Mizuno**
Department of Applied Chemistry, Graduate School of Engineering, Osaka Prefecture University, 1-1 Gakuen-cho, Sakai, Osaka 599-8531, Japan

46. Effect of solvent and interaction of metal ions with indole acids: A fluorescence study
M Rele, S Kapoor and T Mukherjee*
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

47. Photophysical properties of coumarin-152 and coumarin-481 dyes
S Nad and H Pal*
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

48. Photophysics of α-furil: A laser flash photolysis study
A K Singh, D K Palit and J P Mittal*
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

49. Photochemistry of 3,5-dihydro-5,9*b*-*o*-benzenonaphtho[1,2*c*]furan-1-one
Jean John Vadakkan and S Prathapan*
Dept. of Applied Chemistry, Cochin University of Science and Technology, Kochi 682 022, India

50. Magnetic field effects on spin-correlated radical ion pair in photoinduced electron transfer
*Sharmistha Dutta Choudhury, Suchandra Bandyopadhyay, Kakali Sen, Tamal Sengupta and Samita Basu**
Chemical Sciences Division, SINP, 1/AF, Bidhannagar, Kolkata 700 064, India

51. Molecular recognition of quinones. Photosensitized electron transfer reactions of rhenium(I) containing molecular rectangles with quinines
T Rajendran, Bala Manimaran, Rong-Tang Liao, Yen-Hsiang Liu, P Thanasekaran, Ren-Jay Lin, I-Jy Chang, S Rajagopal and Kuang-Lieh Lu*
School of Chemistry, Madurai Kamaraj University, Madurai 625 021, India

52. Photophysical studies on 5-hydroxyindole (5HI): Laser flash photolysis study
*Suman Kalyan Pal and T Misra**
Department of Spectroscopy, IACS, Kolkata 700 032, India

53. Novel active zinc oxide species on silica for phosphorescence and photo-induced non-oxidative methane coupling
Chaskar Manohar Ganpat, Hisao Yoshida, Yuko Kato and Tadashi Hattori*
Department of Applied Chemistry, Graduate School of Engineering, Nagoya University, Furo-cho, Chikusa-ku, Nagoya-464-8603, Japan

54. TiO_2 mediated photodeoxygenation of some organic compounds
*N Somasundaram and C Srinivasan**
School of Chemistry, Madurai Kamaraj University, Madurai 625 021, India

55. Near-field fluorescence microspectroscopy and photothermal surface modification of poly(substituted thiophene) film
Naonori Kurokawa, Hiroyuki Yoshikawa and Hiroshi Masuhara*
Department of Applied Physics, Osaka University, 2-1 Yamada-oka, Suita, Osaka 565-0871, Japan

56. The effect of alumina on photocurrent increment in dye sensitized photo-electrochemical cells based on nanocrystalline SnO_2 films
V P S Perera, G K R Senadeera and K Tennakone*
Institute of Fundamental Studies, Hantane Road, Kandy, Sri Lanka

57. *p*-4CuBr.3S$(C_4H_9)_2$: Promising material as the hole collector in solid state dye sensitized photovoltaic cells with TiO_2
G K R Senadeera, D B R A De Silva, P V V Jayaweera and K Tennakone*
Institute of Fundamental Studies, Hantana Road, Kandy, Sri Lanka

58. Photodimerisation of enones in clay microenvironment
*D Madhavan and K Pitchumani**
School of Chemistry, Madurai Kamaraj University, Madurai 625 021, India

59. Asymmetric induction in photochemical reactions: Photochemistry of **α**-oxomides included in zeolites
N Arunkumar and V Ramamurthy*
Department of Chemistry, Tulane University, New Orleans, LA 70118, USA

60. Efficient electron injection from TICT state of 7-diethyl amino coumarin 3-carboxylic acid (D-1421) dye to TiO_2 nanoparticle
G Ramakrishna and H N Ghosh*
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

61. Electron transfer dynamics in di-bromo fluorescin (DBF) sensitized TiO_2 nano-particle surface: Effect of solvent polarity and free energy ($-\Delta G$) of the reaction
G Ramakrishna, Amit Das and H N Ghosh*
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

62. Effect of particle size on reactivity of quantum size ZnO nanoparticles
G Ramakrishna and H N Ghosh*
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

63. Fluorescence anisotropy decay in polymar-surfactant aggregates
*Sobhan Sen, Dipankar Sukul, Partha Dutta and Kankan Bhattacharyya**
Physical Chemistry Department, IACS, Jadavpur, Kolkata 700 032, India

64. Dual emission of 4-(*N,N*-dimethylamino) cinnamaldehyde in cationic, anionic and non-ionic micelle
Subhasis Panja, Papia Chowdhury and Sankar Chakravorti*
Department of Spectroscopy, IACS, Jadavpur, Kolkata 700 032, India

65. Slow solvation dynamics of dimethylformamide in a nanocavity. 4-aminophthalimide in **β**-cyclodextrin
*Sobhan Sen, Dipankar Sukul, Partha Dutta and Kankan Bhattacharyya**
Physical Chemistry Department, IACS, Jadavpur, Kolkata 700 032, India

66. Dynamics of nile red included in *b*- and *g*-cyclodextrins by time resolved fluorescence spectroscopy
M S Kulkarni and Ranjan Das*
Department of Chemical Sciences, TIFR, Colaba, Mumbai 400 005, India

67. Photophysical and lasing characteristics of dye doped polymer active medium
Alok Ray, S K Nayak, Sucharita Sinha and K Dasgupta*
Laser and Plasma Technology Division, BARC, Mumbai 400 085, India

68. Synthesis and properties of new electroluminescent polymers: Possessing 8-hydroxyquinoline metal complex chromophores
Sang Woo Kim and Sang Chul Shim*
Photochemistry Laboratory, Center for Molecular Design and Synthesis, Department of Chemistry, School of Molecular Science-BK21, Korea Advanced Institute of Science and Technology 373-1, Kusung-Dong, Yusung-Gu, Taejon 305-701, Korea (ROK)

69. Design of chiral nematic glasses using hydrogen bonding interactions
V Ajay Mallia, P K Sudhadevi Antharjanam and Suresh Das*
Photochemistry Research Unit, RRL (CSIR), Thiruvanantapuram 695 019, India

70. Photo-induced host guest electron transfer in a C_{60}-fullerene containing phosphate glass
R Debnath and R Sahoo*
Central Glass and Ceramic Research Institute, Kolkata 700 032, India

71. Photoinduced electron transfer from excited biphenyldiols and calixarenes to chloroalkanes
J Mohanty, H Pal, S Nayak, S Chattopadhyaya and A V Sapre*
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

72. PET between coumarin dyes and aromatic amines in micelle: An example of marcus inverted region
S Nath, M Kumbhakar, H Pal, T Mukherjee and A V Sapre*
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

73. Fluorescence resonance energy transfer and diffusive dynamics of a flexible polymer chain
T Bandyopadhyaya and S K Ghosh*
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

74. Evaluation of some fluorescence probes on their applicability in monitoring polymerization processes
*Tincy Lis Thomas and A K Mishra**
Department of Physics, IIT – Madras, Chennai 600 036, India

75. Slowing down of ionic solvation time correlation function due to cage effect
*C N Patra and S K Ghosh**
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

76. Polarized Raman scattering studies of orientational order of a liquid crystal sample (PCH5)
S Kundu, P Sett, S K Roy and P K Mallick*
Department of Spectroscopy, IACS, Jadavpur, Kolkata 700 032, India

77. Photo-EPR and photoacoustic spectroscopic investigations of Nd^{3+}, Tb^{3+} and Er^{3+} doped PVA films under insitu copper vapor laser illumination
Mithlesh Kumar, Y Babu, A R Dhobale, R M Kadam and M D Sastry*
Radiochemistry Division, BARC, Mumbai 400 085, India

78. Laser flash photolysis study on the reaction of benzil with amines
*Abha Semwal, A K Singh and D K Palit**
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

79. Dissociative electron transfer between aromatic amines and chloroalkanes
S Nath and A V Sapre*
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

80. Photophysical and photochemical studies of indolic stilbenoids
*Prasanta K Hota and Anil K Singh**
Department of Chemistry, IIT – Bombay, Powai, Mumbai 400 076, India

81. Photophysics and photochemistry of melatonin
H S Mahal, S Nath, D K Palit and T Mukherjee*
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

82. Nitroaryl-based photoactivation of immunoglobulin
*Prashat Khade and Anil K Singh**
Department of Chemistry, IIT – Bombay, Powai, Mumbai 400 076, India

83. Bacteriorhodopsin analogues based on diphenylpolyene chromophores
*D Manjula and Anil K Singh**
Department of Chemistry, IIT – Bombay, Powai, Mumbai 400 076, India

84. Photochemistry of bridged mixed enones: An exploratory study on route-selectivity
Saswati Lahiri, Dwijendra Lal Maji and Mithu Chanda*
Department of Organic Chemistry, IACS, Kolkata 700 032, India

85. Observation of coherent effects in pump probe experiments on ultrafast time scale and their control
*R Justin Rajesh and Prem B Bisht**
Department of Physics, IIT – Madras, Chennai 600 036, India

86. Influencing radiative rates of a fluophore: Fluorescence anisotropy and morphology dependent resonances
*P Sandeep and P B Bisht**
Department of Physics, IIT – Madras, Chennai 600 036, India

87. Second order optical nonlinearity of donor-acceptor substituted phosphine-imine chromophores
*Anu Krishnan, K Raghuraman, N P Kishore, Kattesh V Katti and Puspendu K Das**
Department of Inorganic and Physical Chemistry, IISc, Bangalore 560 012, India

88. Surface enhanced Raman scattering studies of triazole derivatives
Suzy Thomas, S Kapoor, V Sugandhi, R D'Cunha and T Mukherjee*
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

89. Maximization of yield of ^{13}C isotope by multiphoton dissociation of freon-22 for macroscopic production of ^{13}C isotope using high average power tea CO_2 laser
Manoj Kumar, Anant Deshpande, Chintan Gupta, A K Biswas and A K Nath*
Centre for Advanced Technology, Indore 452 013, India

90. An efficient product separator and collector system for molecular laser isotope separation process
V Parthasarathy, A K Nayak and S K Sarkar*
Laser and Plasma Technology Division, BARC, Mumbai 400 085, India

91. On the observation of frozen light in a sample of two level atom interacting with a sqeezed reservoir
Amitabh Joshi
Laser and Plasma Technology Division, BARC, Mumbai 400 085, India

92. A free radical spectrum attributable to the triplet-triplet transition of HCN
R Venkatasubramanian and S L N G Krishnamachari*
Spectroscopy Division, BARC, Mumbai 400 085, India

93. Laser photodissociation dynamics of hydroxyacetone: Observation of nascent OH by laser induced fluorescence
P K Chowdhury, H P Upadhyaya, P D Naik and J P Mittal*
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

94. Quantum yield and dissociation dynamics of H atom formation in 193·3 and 121·6 photodissociation of acetylene (C_2H_2)
R K Vatsa, K S Lee, K H Jung, A Lauter, H-R Volpp and J Wolfrum*

95. Dynamics of OH formation in the photodissociation of pyruvic acid at 193 nm
S Dhanya, R D Saini, H P Upadhyaya, Awadhesh Kumar and P D Naik*
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

96. Ultrafast dynamics of nonbornene and norbirnadiene excited at 200 nm
K K Pushpa, W Fuss, W E Schmidt and S A Trushin*
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

97. Photodissociation dynamics of propiolic acid at 193 nm employing laser induced fluorescence technique
Awadhesh Kumar, H P Upadhyaya, P D Naik, A V Sapre and J P Mittal*
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

98. Hydrogen bonded structure of tetrahydroisoquinoline-water clusters in supersonic jet
Nikhil Guchhait
Department of Chemistry, Visva-Bharati, Santiniketan 731 235, India

99. Water clusters of aminophenol and hydroquinone
P S Meenakshi, Nandita Biswas and Sanjay Wategaonkar*
Department of Chemical Sciences, TIFR, Colaba, Mumbai 400 005, India

100. REMPI and hole burning spectroscopy of hydroquinone dimer
*P S Meenakshi, Nandita Biswas and Sanjay Wategaonkar**
Department of Chemical Sciences, TIFR, Colaba, Mumbai 400 005, India

101. Photodissociation dynamics of CH_2ICl and $C_6H_4I(CH_2Cl)$ at 222, 236, 266, 280, and 304 nm
*Dulal Senapati and Puspendu K Das**
Department of Inorganic and Physical Chemistry, IISc, Bangalore 560 012, India

102. Excimer formation in the mixed dimers of aromatic hydrocarbons: A laser-induced fluorescence study in supersonic jet
Aloke Das, K K Mahato and Tapas Chakraborty*
Department of Chemistry, IIT, Kanpur 208 016, India

103. Theory of non-polar solvation dynamics: effect of attractive and repulsive interactions
N Choudhury and S K Ghosh*
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

104. Photooxidation of curcumin in presence of peroxydisulphate in aqueous–acetonitrile medium
Middulla Sudha Swaraga and Mundra Adinarayana*
Department of Chemistry, Osmania University, Hyderabad 500 007, India

105. Kinetics and mechanism of protection of thymine from sulphate radical anion by caffeic acid under anoxic conditions
Mundra Adinarayana and Middulla Sudha Swaraga*
Department of Chemistry, Osmania University, Hyderabad 500 007, India

106. Effect of solvent on the photophysical properties of substituted curcumins
A Barik, K I Priyadarsini, D K Palit and Hari Mohan*
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

107. Ligand tuning of luminescence of rhenium(I) – based molecular rectangles
*Bala Manimaran, T Rajendran, Rong-Tang Liao, Ren-Jay Lin, I-Jy Chang, S Rajagopal and Kuang-Lieh Lu**
Institute of Chemistry, Academica Sinica, Taipei, 115 Taiwan

108. Synthesis and luminescence quenching studies of chromiun(III) complexes with N and O donor ligands
S Balasubramanian, N Senthil Kumar and T Shanmuga Priya*
Dept. of Inorganic Chemistry, A C College Campus, University of Madras, Chennai 600 025, India

109. Conformational studies on gramicidin-A in cationic micellar media by fluorescence spectroscopy
J Shobini and *A K Mishra**
Department of Chemistry, IIT – Madras, Chennai 600 376 India

110. Photoinduced proton transfer in 1-hydroxyl 2-naphthoic acid: Experimental and theoretical investigations
H Mishra, S Maheshwari, N Sathyamurthy and H B Tripathy*
Photophysics Laboratory, Physics Department, Kumaoun University, Nainital 263 001, India

111. Edge excitation red shift and charge transfer study of 8-methoxyquinoline in polymer matrices
M S Mehata, H C Joshi and H B Tripathi*
Photophysics Laboratory, Physics Department, Kumaoun University, Nainital 263 001, India

112. Comparative studies of diffusion and migration effects on excitation energy transfer among dye pairs in different media
V Mishra, H Mishra and T Pant*
Photophysics Lab, Physics Department, Kumaoun University, Nainital 263 001, India

113. Studies on uranyl ion induced photodegradation
*S K Rakshit, M K Sureshkumar, D B Naik and K Kishore**
Applied Chemistry Division, BARC, Mumbai 400 085, India

114. Peripherally coordinated tetra ruthenated porphyrin: Photophysical investigation
S Tamijselvy, R Venkatesan, T M Rajendiran and P Sambasiva Rao*
Department of Chemistry, Pondicherry University, R V Nagar, Kalapet, Pondicherry 605 014, India

115. Time resolved laser induced fluorescence in nuclear fuel cycle
G K Bhowmick, K Dasgupta, R C Bapna, S K Sarkar and A Ramanujam*
Laser and Plasma Technology Division, BARC, Mumbai 400 0085, India

116. Photochemistry of volatile uranium compounds
Sisir K Sarkar
Laser and Plasma Technology Division, BARC, Mumbai 400 085, India

117. Aggregation of amyloid beta peptide by fluorescence correlation spectroscopy
*P Sengupta, K Garai, D J Callawan and S Maiti**
Department of Chemical Sciences, TIFR, Mumbai 400 005, India

118. Multiphoton excitation spectroscopy of biomolecules
*K Garai, J Balaji and S Maiti**
Department of Chemical Sciences, TIFR, Mumbai 400 005, India

Radiation Chemistry

1. Observation of transient species in high temperature and supercritical water by pulse radiolysis
Yosuke Katsumura, Guozhong Wu, Mingzhang Lin, Yusa Muroya, Timomi Morioka and Hisaki Kudoh*
Nuclear Engineering Research Lab, School of Engineering, University of Tokyo, 2-22 Shirakata Shirane, Tokai-mura, Ibaragi Prefecture, 319-1188, Japan

2. Improvement of laser-synchronize subpicosecond pulse radiolysis and their application to geminate recombination, polymers and nanotechnology
S Tagawa, Y Yoshida, T Kozawa, A Saeki and Shu Seki*
Institute of Scientific and Industrial Research, Osaka University, 8-1, Mihogaoka, Ibaraki, Osaka, 567 0047, Japan

3. Laser driven electron accelerator at Waseda University
Masakazu Washio, Shigeru Kashiwagi, Yoshimasa Hama, Ryunosuke Kuroda Takashi Oshima, Junji Urakawa and X J Wang*
Waseda University, 3-4-1 Okubo, Shinjuku-ku, Tokyo 169-8555, Japan

4. Radiation chemistry in model membrane system
S Adhikari
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

5. Study of alkane radical cations in irradiated solutions by time resolved magnetic field effects
*V I Borovkov, V A Bagryansky, I V Eletskikh and Yu N Molin**
Institute of Chemical Kinetics and Combustion, 630090 Novosibirsk, Russia

6. Recent progress on radiation technology applications for material processing in India
Sunil Sabharwal
Radiation Technology Development Section, BARC, Mumbai 400 085, India

7. Radiation chemistry and radiation processed foods
Arun Sharma
Food Technology Division, BARC, Mumbai 400 085, India

8. Free radical reactions and antioxidant activity of curcumin and its derivatives
K Indira Priyadarsini
Radiation Chemistry and Chemical Dynamics Division, BARC, Mumbai 400 085, India

9. Redox chemistry of arylazonapthol dyes: A radiation chemical study
*K K Sharma and B S M Rao**
National Centre for Free Radical Research, Dept. of Chemistry, University of Pune, Pune 411 007, India

10. Reactions of oxide radical ion ($O^{\bullet -}$) with substituted pyrimidines
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11. Fenton Chemistry of 1,3-dimethyluracil
J A Theruvathu, C T Aravindakumar, Roman Flyunt, Justus von Sonntag and Clemens von Sonntag*
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12. Reactions of OH and other oxidizing radicals with tryptophol
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13. The oxidation reactions of biphenyl dione
M Rele, S Adhikari, G P Kalena, S Chattopadhyaya and T Mukherjee*
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14. Hole transfer in DNA
Tetsuro Majima
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15. Radiation chemical study of DNA model systems
*T S Singh, S Geeta, P O'Neill and B S M Rao**
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16. Radiation induced DNA damages in *Escherichia coli* K12 cells in the presence of copper(II) ions and its complexes: A fluorimetric study
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17. Tempo and tempol protect DNA from *g*-induced damage in aerated medium
K Chabita and P C Mandal*
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18. Kinetics of DNA single strand break rejoining in gamma irradiated human eripheral blood leucocytes
*H N Bhilwade, V Sonawane, R Rajagopalan and R C Chaubey**
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19. Effect of gamma radiation and photolysis on aminopeptidase
*V K Jamadar, S N Jamadar, Hari Mohan, S P Dandekar and P Harikumar**
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20. Radiation induced polymerization and gel formation characteristics of N-hydroxy methyl acrylamide in aqueous solution
Anjali Acharya, H Mohan and S Sabharwal*
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21. Radiolytic reduction of poly (*para*-sodium styrene sulphonate) of different degrees of polymerization in aqueous solution
Y K Bhardwaj, H Mohan and S Sabharwal*
Radiation Technology Development Section, BARC, Mumbai 400 085, India

22. Preparation of low molecular weight chitosan by a combination of chemical treatment and Co^{60} gamma radiation …… *S P Ramnani*, C V Chaudhari, K P Rawat and S Sabharwal*
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23. The mechanical properties and the chemical structure for polyethylene irradiated with heavy ion-beams
Toshitaka Oka, Hidenori Kanbe, Fumio Yatagai, Yoshimasa Hama and Fumio Yatagai*
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24. High energy C^{+} ion induced modifications in viton and polystyrene
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25. Extraction of plutonium using radiation grafted 2-ethylhexyl phosphonic acid mono-2-ethylhexyl ester on vinyl copolymer
C S Kedari, M Kumar, S S Pandit and U Jambunathan*
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26. Study of gamma radiolytic formation of mixed aqueous Ag/Tl sols
Manmohan Kumar
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27. Radiolytic and laser induced study on Ag metal nanoparticles in viscous media
*M Rele, S Kapoor, D K Palit and T Mukherjee**
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28. Transient and silver clusters in methanol
Ghasiram Dey, Mehran Mostafavi and Jacqueline Belloni*
Applied Chemistry Division, BARC, Mumbai 400 085, India

29. Degradation studies on di(2-ethylhexyl)isobutyramide (D2EHIBA): A promising extractant for the reprocessing of Th based fuels
P N Phatak, A Subramanian, S Gamre and V K Manchanda*
Radiochemistry Division, BARC, Mumbai 400 085, India

30. Effect of *g*-exposure on retention of recoil ^{56}Mn in permanganates
S P Mishra and Vijaya*
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31. Intramolecular proton transfer in water dimer on ionization
T K Ghanty and S K Ghosh*
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32. Structure, bonding and spectra of two center three-electron bonded sulfur centred cations: An *ab initio* molecular orbital study
Dilip K Maity
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33. Reactions of methyl viologen dication (MV^{2+}) with H atom in aqueous solution: Mechanism derived from pulse radiolysis measurements and *ab initio* calculations
T N Das, T Ghanty and H Pal*
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34. Investigation on the triplet excited states and radical intermediates formed in electron pulse radiolysis of amino and dimethyl amino derivatives of benzophenone
A K Singh, D K Palit, T Mukherjee and J P Mittal*
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35. Reactions of hydrated electrons with triazine derivatives in aqueous medium
*R Varghese, H Mohan, T A Jacob, P Manoj, V M Manoj, J P Mittal and C T Aravindakumar**
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36. Free radical induced oxidation and reduction of 1-arylazo-2-naphthol dyes
K K Sharma, B S M Rao, H Mohan, J P Mittal, J Oakes and P O'Neill*
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37. Reactions of radiolytically generated oxidizing species with vinyl benzyl trimethyl ammonium chloride (VBT) in aqueous solution
Virendra Kumar, Y K Bhardwaj, S Sabharwal and Hari Mohan*
Radiation Technology Development Section, BARC, Mumbai 400 085, India

38. Pulse radiolysis study on the redox reactions of basic fuschin, an organic dye
S N Guha
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39. Nano-wire formation in polymer thin films by high energy ion beams
Shu Seki, Y Yoshida, S Tagawa, M Sugimoto, N Morishita and S Tanaka*
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40. Dose rate effects on radiolytic synthesis of gold-platinum clusters
H Remita and J Belloni*
Laboratoire de Chimie Physique, Umr 8000, Bât 349, Université-Paris-Sud, 91405 Orsay, France

41. Platinum carbonyl clusters: Redox kinetics and applications
H Remita, M Treguer, P Pernut and J Belloni*
Laboratoire de Chimie Physique, Umr 8000, Bât 349, -Paris-Sud, 91405 Orsay, France

42. Pule radiolysis of 3-pyridine methanol and 3-pyridine carboxyaldehyde in aqueous solution
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Previous Asian Photochemistry Conferences (APC):

(1) Hong Kong 1997 (2) Taejon, Korea 1999
(3) Mumbai 2002

Next Asian Photochemistry Conference: Taipei, Taiwan 2004

Previous Trombay Symposia on Radiation & Photochemistry (TSRP) held at Bhabha Atomic Research Centre, Trombay, Mumbai

(1) 1992 (2) 1994 (3) 1996 (4) 1998 (5) 2000
(6) 2002 (incorporated in APC-2002)

Next TSRP at BARC, Mumbai during January 7–12, 2004