
COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION (CSIRO)

Division of Applied Organic Chemistry
P.O.Box 4331, G.P.O.

AUS-3001 MELBOURNE

TELEPHONE: (03) 64-0251

RESEARCH INTERESTS: CP;CO;CI/SE AUS-30 SA

RESEARCH TEAM HEAD(S)

W H F Sasse (*)

STAFF MEMBERS

D N Furlong; A W-H Mau; J W Loder; O Johansen; J D Swift; D Wells;
M Bliese; A Launikonis; P Hine

SPECIAL PHOTOCHEMICAL TECHNIQUES

RESEARCH TOPICS

- photochemical conversion and storage of solar energy (design and development of open photochemical systems for the production of high grade fuels); work in progress is concerned with the formation of hydrogen from water, and in particular with the evaluation of different systems, mechanistic studies, the elucidation of routes of decay of components, and the synthesis of improved components

UNIVERSIDADE ESTADUAL DE CAMPINAS

Departamento de Química Inorganica
Caixa Postal 1170

13.100 CAMPINAS, BRAZIL

TELEPHONE: (0192) 39-1110

RESEARCH INTERESTS: CO/CY;CR BR-13 PA

RESEARCH TEAM HEAD(S)

M-A De Paoli (dr)

STAFF MEMBERS

M Makita; S M de Oliveira; M Zeni; I T Tamashiro

SPECIAL PHOTOCHEMICAL TECHNIQUES

RESEARCH TOPICS

- photochemical substitution of ligands in Fe(O) compounds
- photografting and photocrosslinking of butadiene and cis polyisoprene

BROCK UNIVERSITY

Department of Chemistry
Glenridge Campus

ST CATHARINES, ONTARIO, L2S 3A1, CANADA

TELEPHONE: (416) 684 3718

RESEARCH INTERESTS: CP/PI;BC CAN-L2 CH

RESEARCH TEAM HEAD(S)

E A Cherniak (dr)

STAFF MEMBERS

R Corkum; G McGimpsey

SPECIAL PHOTOCHEMICAL TECHNIQUES

- microsecond broadband flash photolysis

RESEARCH TOPICS

- production and decay kinetics of the first triplet state, the hydrated electron, the radical cation and the neutral radical in the microsecond broad band flash photolysis of neutral aqueous solutions of indole
- photochemistry and photophysics of aqueous solutions of tryptophan, serotonin and meta-enkephalin
- gas phase microsecond kinetics and mechanisms of the decay of radicals, ions and excited states generated by flash photolysis
- nanosecond laser induced physical and chemical processes
- mechanisms of processes competing with nanosecond fluorescence emissions

NATIONAL RESEARCH CENTRE

Photochemical Laboratory
Sh El-Tahir
Dokki

CAIRO, EGYPT

TELEPHONE: ()

RESEARCH INTERESTS: --/-- ET-CA SI

RESEARCH TEAM HEAD(S)

M Sidky (prof)

STAFF MEMBERS

A A Nada (dr)

SPECIAL PHOTOCHEMICAL TECHNIQUES

RESEARCH TOPICS

- photochemistry of pesticides and herbicides with heterocyclic nuclei

BHABHA ATOMIC RESEARCH CENTER

Chemistry Division
Trombay

BOMBAY, 400 085 INDIA

TELEPHONE: 52 33 21

RESEARCH INTERESTS: CP/PK;LS IN-40 MI

RESEARCH TEAM HEAD(S)

J P Mittal (dr)(*)
K V S Rama Rao (dr)
P K Chakrabarty (dr)

STAFF MEMBERS

A V Sapre; T Mukherjee; S K Sarkar; V Parthasarthy; R Talukdar; R S Kawe

SPECIAL PHOTOCHEMICAL TECHNIQUES

- N2 laser and N2 pumped dye laser (1 MW, 10nsec)
- Ar+ion laser (CR-18, 18 W)
- semiconductor diode laser
- CW CO2 laser (home made, 20 W)
- TEA-CO2 laser (expected Feb 1981)(ISJ line tunable)
 - microsecond flash photolysis unit (conventional, home made)

RESEARCH TOPICS

- photochemistry at low temperature
- laser induced chemistry
- multiphoton chemistry
- photobiology
- radiation chemistry
- flash photolysis
- optoacoustic spectroscopy

UNIVERSITY OF PORT ELIZABETH

Department of Organic Chemistry
P.O. Box 1600

PORT ELIZABETH 6000, SOUTH AFRICA

TELEPHONE: (5311-102)

RESEARCH INTERESTS: CO/CR SA-60 GO

RESEARCH TEAM HEAD(S)

A Goosen (prof)(*)
C W McClelland (dr)
S A Glover (dr)

STAFF MEMBERS

P Dicks; S L Golding; P Jwili; B Taljaard; R Vogel

SPECIAL PHOTOCHEMICAL TECHNIQUES

RESEARCH TOPICS

- the hypiodite reaction (the fission of 1,2-diol and related systems)
- the photochemical and thermal studies of N-haloamide, imide and related compounds
- the synthesis and properties of peroxides
- secondary fragmentation reactions in free radical reactions

UNIVERSITY OF ORANGE FREE STATE

Department of Chemistry
P O Box 339

BLOEMFONTEIN 9300, SOUTH AFRICA

TELEPHONE: 70711

RESEARCH INTERESTS: CO/CR SA-93 RORESEARCH TEAM HEAD(S)

D G Roux (prof)(*)
D Ferreira (prof)

STAFF MEMBERS

J H van der Westhuizen (dr)

SPECIAL PHOTOCHEMICAL TECHNIQUES

RESEARCH TOPICS

- preparative photochemistry of flavonoid compounds

UNIVERSITE DE DAKAR/FACULTE DES SCIENCES

Département de Chimie

DAKAR-FANN, SENEGAL

TELEPHONE: (221). 22-04-43

RESEARCH INTERESTS: CA/PE SEN-DA AARESEARCH TEAM HEAD(S)

J J Aaron (*)

STAFF MEMBERS

J Fidanza; A Tine

SPECIAL PHOTOCHEMICAL TECHNIQUES

- Turner fluorimeter
- Oriel excitation lamp and power supply
- Perkin-Elmer spectrofluorimeter

RESEARCH TOPICS

- studies of excited state prototropic reactions of heterocyclic compounds (purines, quinolines, isoquinolines, indoles)
- fluorimetric and phosphorimetric methods of determination of pesticides, and pesticide residues in crops
- application of combined fluorimetric/photochemical/TLC methods to the analysis of antimalarial compounds

BOSTON COLLEGE

Department of Physics

CHESTNUT HILL, MA 02167

TELEPHONE: (617) 969-0100

RESEARCH INTERESTS: PP/PE;PK USA-02 BARESEARCH TEAM HEAD(S)

B di Bartolo

STAFF MEMBERS

D P Pacheco (dr); V Goldberg (dr); J Danko

SPECIAL PHOTOCHEMICAL TECHNIQUES

- flash photolysis apparatus for study of liquids
- flash photolysis apparatus for study of gases
- Molelectron dye laser
- luminiscence spectroscopy apparatus
- photoacoustic apparatus

RESEARCH TOPICS

- luminiscence spectroscopy
- molecular spectroscopy
- flash photolysis
- photoacoustic spectroscopy

QUEENS COLLEGE, CUNY

Department of Chemistry
65-30 Kissena Boulevard

FLUSHING, NY 11367, USA

TELEPHONE: (212) 520-7768

RESEARCH INTERESTS: PP;CP/BP;PI;LS USA-11 HA

RESEARCH TEAM HEAD(S)

E Hayon (dr)

STAFF MEMBERS

SPECIAL PHOTOCHEMICAL TECHNIQUES

- picosecond laser photochemistry is planned for 1981

RESEARCH TOPICS

- pulse laser studies of nitrogen heterocyclic compounds and model biochemical systems

GEORGETOWN UNIVERSITY

Department of Chemistry

WASHINGTON, DC 20057, USA

TELEPHONE: (301) 625-3116

RESEARCH INTERESTS: PO/PK;OT USA-20 WERESEARCH TEAM HEAD(S)

R G Weiss

STAFF MEMBERS

SPECIAL PHOTOCHEMICAL TECHNIQUES

- equipment for measuring kinetics and quantum yields in anisotropic solutions
- single photon counting
- picosecond lasers (Nd-YAG and Nd-glass; experiments conducted at Naval Research Laboratory; cooperative research program)

RESEARCH TOPICS

- photochemical and photophysical processes in liquid crystals and other ordered solvents
- photochemical pathways to induced optical activity
- thermal reactions in ordered media
- fast reactions in the gas and liquid phases

NORTH CAROLINA STATE UNIVERSITY

Chemistry Department

RALEIGH, NC 27612, USA

TELEPHONE: (919) 787 5579

RESEARCH INTERESTS: PP/SP;PL USA-27 DE

RESEARCH TEAM HEAD(S)

M K DeArmond

STAFF MEMBERS

D Wertz; K W Hanck

SPECIAL PHOTOCHEMICAL TECHNIQUES

- photoselection spectroscopy (automated photoselection spectrometer)
- CW and pulsed resonance Raman (dye laser system including pulsed and CW)

RESEARCH TOPICS

- multiple state emission from transition metal complexes
- luminescence photoselection studies of transition metal complexes
- luminescence and energy transfer for d6 transition metal complexes
- mechanism of heterogeneous electron transfer for transition metal complexes
- electrochemical synthesis of unique transition metal complexes

EMORY UNIVERSITY

Department of Chemistry

ATLANTA, GA 30322, U S A

TELEPHONE: (404) 629 33 29

RESEARCH INTERESTS: CO;PO/-- USA-30 PA

RESEARCH TEAM HEAD(S)

A Padwa

STAFF MEMBERS

SPECIAL PHOTOCHEMICAL TECHNIQUES

RESEARCH TOPICS

UNIVERSITY OF TOLEDO

Department of Chemistry

TOLEDO, OH 43606, USA

TELEPHONE: (419) 537-2104

RESEARCH INTERESTS: PO/CR;OT USA-43 GA

RESEARCH TEAM HEAD(S)

J E Gano (dr)

STAFF MEMBERS

R Wettach

SPECIAL PHOTOCHEMICAL TECHNIQUES

- capabilities to do photochemical and spectroscopic studies (IR, laser Raman, UV-vis) at variable temperatures (8 K to 400 K)
- microsample handling techniques
- high intensity lamps
- short wavelength light sources

RESEARCH TOPICS

- very low temperature photochemistry, synthesis of extremely twisted alkenes, synthesis and characterization of reactive intermediates (ketenes, carbenes, ylids)
- ester photochemistry in solution
- type II elimination and related reactions of carbonyl systems
- flash vacuum pyrolysis in chemical synthesis

BATELLE COLUMBUS LABORATORIES

Chemistry Department
505 King Avenue

COLUMBUS, OH 43201, USA

TELEPHONE: (614) 424-5637

RESEARCH INTERESTS: CP;CO;PO/CY;CD;CE;AT;AP;SE;PK;SP;LS;CL USA-43 SC

RESEARCH TEAM HEAD(S)

R E Schwerzel (dr)(*)
R M Pearlstein (dr)
R H Barnes (dr)
C W Spicer (dr)

STAFF MEMBERS

H J Byker (dr); N A Edie (rt); S M Ditson (rt); D G Vutetakis

SPECIAL PHOTOCHEMICAL TECHNIQUES

- unique facility for laser-EXAFS spectroscopy in addition to wide variety of lasers and other conventional equipment

RESEARCH TOPICS

- photodegradation of xanthene laser dyes
- production of H₂ and other fuels by solar photoelectrolysis
- research on photoelectrochemical cells
- development of fluorescence immunoassay techniques
- study of artificial chlorophyll-protein complexes
- development of laser-EXAFS techniques
- lasers for marking applications
- atmospheric photochemistry of stack gas plumes

DOW CHEMICAL CO

Environmental Sciences Research Laboratory
1701 Building

MIDLAND, MI 48640, USA

TELEPHONE: (517) 636 3984

RESEARCH INTERESTS: CO/CE;AT USA-48 DI

RESEARCH TEAM HEAD(S)

W L Dilling (dr)

STAFF MEMBERS

SPECIAL PHOTOCHEMICAL TECHNIQUES

RESEARCH TOPICS

- simulated atmospheric and aquatic environmental decomposition reactions of various organic compounds

WAYNE STATE UNIVERSITY

Department of Chemistry
335 Chemistry Building

DETROIT, MI 48202, USA

TELEPHONE: (313) 577-2546

RESEARCH INTERESTS: PO/CL;CR USA-48 SC

RESEARCH TEAM HEAD(S)

A P Schaap (prof)

STAFF MEMBERS

SPECIAL PHOTOCHEMICAL TECHNIQUES

- single photon chemiluminescence and fluorescence apparatus interfaced with computer
- cyclic voltammetry equipment
- high resolution UV spectrophotometer
- apparatus for large and small scale photooxygenations

RESEARCH TOPICS

- reactions of singlet O2
- mechanism of chemiluminescence
- electron-transfer photochemistry
- polymer-immobilized photosensitizers

UNIVERSITY OF TEXAS AT AUSTIN

Department of Chemistry

AUSTIN, TX 78712, USA

TELEPHONE: (512) 471-1811

RESEARCH INTERESTS: PO/SE USA-78 FORESEARCH TEAM HEAD(S)

M A Fox (prof)

STAFF MEMBERS

2 postdoctoral research associates; 4 graduate students; 2 undergraduate assistants

SPECIAL PHOTOCHEMICAL TECHNIQUES

- photoelectrochemical apparatus
- monochromators, emission spectrometers
- access to pico-second laser, flash photolysis, pulse radiolysis with computer data analysis
- preparative photoreactors

RESEARCH TOPICS

- photoelectrochemistry
- organic photochemical mechanisms
- photoinduced electron exchange

UNIVERSITY OF TEXAS AT EL PASO

Department of Chemistry

EL PASO, TX 79968, USA

TELEPHONE: (915) 747-5764

RESEARCH INTERESTS: CO/CR;SP USA-79 PARESEARCH TEAM HEAD(S)

C Párkányi (prof)(*)

STAFF MEMBERSM E Wojciechowska (dr); A S Shawali (dr); M A Al-Salamah; E I-P Ho;
A G NewtonSPECIAL PHOTOCHEMICAL TECHNIQUES

- photon counting equipment

RESEARCH TOPICS

- aromatic and heteroaromatic photosubstitutions
- electronic absorption and emission (fluorescence, phosphorescence) spectra of aromatic and heteroaromatic compounds
- excited state dissociation constants of aromatic and heteroaromatic bases and acids
- quantum-chemical calculations of the ground- and excited-state physical and chemical properties of aromatic and heteroaromatic compounds
- photochemistry of coordination compounds

UNIVERSITY OF UTAH

Department of Chemistry

SALT LAKE CITY, UT 84112, USA

TELEPHONE: (801) 581 8549

RESEARCH INTERESTS: PO/OT USA-84 MIRESEARCH TEAM HEAD(S)

J Michl (dr)(*)

STAFF MEMBERS

H Dewey (dr)

SPECIAL PHOTOCHEMICAL TECHNIQUES

- matrix isolation
- lasers

RESEARCH TOPICS

- mechanism of pericyclic processes
- adiabatic photochemistry of dewar naphthalenes
- upper excited state and hot excited state processes
- intramode vibrational energy transfer

UNIVERSITY OF CALIFORNIA AT SANTA BARBARA

Department of Chemistry

SANTA BARBARA, CA 93106, USA

TELEPHONE: (805) 961 2443

RESEARCH INTERESTS: CI/CM USA-93 FORESEARCH TEAM HEAD(S)

P C Ford

STAFF MEMBERS

SPECIAL PHOTOCHEMICAL TECHNIQUES

- CW and flash photolysis
- laser spectroscopy

RESEARCH TOPICS

- coordination chemistry
 - organometallics
-