



NEWSLETTER

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No. 59 July-August 1982

"Natural" Illuminant Spectral Power - Richard Corth, Westinghouse Lamp Division

A number of experimenters in the recent literature, including some of the authors published in Photochemistry and Photobiology, (Ozaki and Wurtman, 1979; Chignell et al, 1981) have expressed the opinion that exposure to an illuminant different than the one in which a species has evolved (the so called "natural" illuminant) may produce "unwanted biological side effects" (Chignell, 1981). If these investigators are concerned with the effects of "unnatural" illuminant spectral power distributions it would seem totally inconsistent to use the spectral power distribution of sunlight as representative of the "natural" illuminant for nocturnal animals. Yet, almost without exception, this is what has been done. Certainly, it would seem more appropriate to use twilight, moonlight, or a moonless night sky as the "natural" illuminant for nocturnal animals. These differ significantly from sunlight in both spectral composition and particularly in intensity. (Lythgoe, 1979)

This is more than a minor cavil because interpretations of the results of such investigations are raising unwarranted fears concerning artificial illumination. Whatever the data of these experiments mean it would certainly be unreasonable that they be taken to confirm concerns that artificial illumination which differs from sunlight is medically suspect.

REFERENCES

- Chignell, C.F., R.H. Sik, B.C. Gladen, and D.B. Feldman (1981) Photochem. Photobiol. 34, 617-621
- Lythgoe, J.N. (1979) The Ecology of Vision, Clarendon Press, Oxford. pgs 5,6
- Ozaki, Y. and R.J. Wurtman (1979) Photochem. Photobiol. 29, 339-341

Natural History of a Sunbeam - Kendric Smith

This is a 12-part series (30 min each) on PBS based on England's world famous Royal Institutions Christmas Lectures for Children (and adults), exploring the sun's energy and its relationship to life on earth. Sir George Porter gave the first lecture.

The first program was excellent. I saw it on Channel 9 (PBS) in San Francisco on Saturday, May 15, 1982. The second program is entitled "The Mysteries of Color"; the third: "Light and Life, Part 1. The Mystery of Creation". Look for these programs on the PBS station in your area. They may be shown again at a later date or may be available for showing if requested.

Congressional Corner - Harlee Strauss

A bill entitled "The Human Care and Development of Substitutes for Animals in Research" is in its polishing up phase in the House subcommittee on Science, Research, and Technology. This bill, also called H.R. 6245, will probably effect many ASP members when it is eventually enacted into law.

H.R. 6245, as indicated by its title, has two purposes: to ensure that laboratory animals receive humane care and to promote the development of non-animal research systems. The bill tries to accommodate the needs of researchers who use animals in their experiments and the animal welfare groups who are concerned about needless pain and distress in lab animals. Many animal welfare groups have been very vocal in their demand for a bill like this. Comments by scientists have generally been upon request by the committee.

The first section of H.R. 6245 requires the Secretary of Health and Human Services - who will probably designate the head of NIH - to sponsor research and development of methods to reduce or eliminate the use of live animals in research testing. Approximately \$10 million per year will be authorized for this program. The first section also directs the EPA, FDA, and National Toxicology Program to redirect some of their resources towards R&D of "new methodologies and validation of non-animal methods or computer models, which could be more rapid, less expensive, and generate more useful toxicological information."

The second section of H.R. 6245 will require all research 'entities' that receive federal funds for research involving animals to have accredited animal facilities and provide certain specific assurances. For example, they must assure they have established an institutional animal care committee with at least one non-scientist member from the local community. This committee will make inspections of animal facilities semi-annually at which time they will also review research protocols in progress involving direct use of conscious animals and the condition of the animals. The committee will also establish courses for scientists and animal technicians on 1) the humane practice of animal maintenance and experimentation and 2) the concept and availability of research or testing methods that minimize the use of animals or limit animal distress.

To enforce compliance with the human treatment provisions, Federal granting agencies may withhold support for the research project(s) where animal care conditions have been persistently neglected despite notification to the research 'entity'.

Doug Walgren, the chairman of the Science, Research, and Technology subcommittee is the chief sponsor of this bill. Comments or requests for more specific information or copies of the bill should be sent to him.

Position Opening

The Department of Biological Sciences of the University of Illinois at Chicago invites applications for a Postdoctoral Research Associate Position: Biochemistry and Physiology of Porphyrin and Chlorophyll Synthesis in Higher Plants. Duties will include studies of the turnover of several biosynthetic precursors of porphyrins, chlorophylls, and hemes. Ph.D. in biochemistry, plant physiology, or a related subject is required. Experience with isotope techniques, spectrophotometry, and spectrofluorometry is highly desirable. Training in some area of photosynthesis would be helpful. The starting date is August 1, 1982 (or reasonably soon thereafter). This is a full time, one year appointment. Starting salary is \$14,500 per year, negotiable based upon qualifications with increments possible in subsequent years. Send application to Dr. Merrill L. Gassman, Associate Professor, Dept. of Biological Sciences, The University of Illinois at Chicago, P.O. Box 4348, Chicago, Illinois 60680. (312) 996-5438. Application deadline is August 1, 1982. THE UNIVERSITY OF ILLINOIS IS AN EQUAL OPPORTUNITY AFFIRMATIVE ACTION EMPLOYER.

MEETINGS

May 26-28, 1983

INTERNATIONAL SYMPOSIUM ON PORPHYRINS IN TUMOR PHOTOTHERAPY, Milano - Bruzzano, Italy.

General Objectives

The International Symposium on Porphyrins in Tumor Phototherapy will deal with both basic research and clinical applications. The Symposium will review recent progress in (photo)-chemistry and photophysics of Porphyrins and their use in photobiology and tumor diagnosis and therapy. The time of the meeting will be May 26-28, 1983. The Symposium will follow the Third National Congress of the Italian Society for Laser Surgery and Biomedical Applications to be held in the same site on May 23-25, 1983. People interested in following also this Congress are requested to send for information.

Subjects to be Discussed

Physico-chemical properties of Porphyrins.

Interactions of Porphyrins with model systems, subcellular structures and cells; photosensitizing effects.

Studies on transplanted and spontaneous animal tumors: pharmacokinetics, diagnosis and phototherapy.

Veterinary applications.

Present clinical applications and new perspectives in diagnosis and therapy.

Direct and endoscopic procedures.

MEETINGS (Cont.)

INTERNATIONAL SYMPOSIUM ON PORPHYRINS IN TUMOR PHOTOTHERAPY, Milano - Bruzzano, Italy. (CONTINUED)

Call for Papers

Contributed papers covering original work in the Symposium subjects will be accepted for presentation. The time allotted for presentation will be determined when the Technical Program Committee sessions the papers.

Each author must submit the following material:

-A summary of the presentation. This summary must be typed on 8½" x 11" white bond paper with 1" margins all around. The author must include within the four page limit all text, equations, drawings, figures and references.

Figures, tables, and drawings must appear on the page exactly as they are to be reproduced. The text may be typed either single or double spaced. The first page of the summary must begin with the title of the paper followed by the author's name and address. The summary should be paginated, but the title should not be carried forward to the second, third, and fourth pages.

-Two additional copies of the summary.

THE SUMMARY MUST REACH THE PROGRAM COMMITTEE BY FEBRUARY 28, 1983

Acceptance of the papers will be notified to the author listed first on the summary. FURTHER INFORMATION WILL BE SENT TO ALL APPLICANTS

Scientific Secretariat: G. Bandieramonte, R. Marchesini

Instituto Nazionale Tumori

Via Venezian, 1 - 20133 Milano (Italy)

June 9-11, 1983

INTERNATIONAL SYMPOSIUM ON: NEW TRENDS IN PHOTOTHERAPY Photobiochemistry of Tetrapyrrolic Pigments and Biomedical Applications, Padova, Italy

Subjects Include: Bilirubin Metabolism, Interaction between Bilirubin and Serum Components, Photophysical and Photochemical Properties of Bilirubin In Vitro and In Vivo, Photosensitizing Properties of Bilirubin and Its Analogs, Current Status and Future Prospects of Phototherapy of Neonatal Jaundice, Drugs and Phototherapy, Side Effects of Phototherapy, Bronze Baby Syndrome, Neurotoxicity of Bilirubin, Estimation of Bilirubin Binding by Plasma Preteins, etc. Scientists interested in participating are invited to contact: Prof. F.F. Rubaltelli, Clinica Pediatrica, Università di Padova, Via Giustiniani 3, Padova, 35100 Italy or Prof. G. Jori, Istituto de Biologia Animale, Università di Padova, Via Loredan 10, Padova, 35100 Italy.

July 3-8, 1983

SEVENTH INTERNATIONAL CONGRESS OF RADIATION RESEARCH, Amsterdam, The Netherlands. Scientific Program includes: Physics and chemistry, Biology, Carcinogenesis, Tumour radiobiology and radiotherapy, Agriculture and Technology, and Radiation protection/dosimetry. The congress will be open to all scientists interested in radiation research. The congress fee will be approximately Dfl. 400,- based on current prices; this will include registration, local transport, the congress excursion, books of extended abstracts and an issue of the complete text of plenary lectures, introductory papers and rapporteur summaries. The registration fee for accompanying persons will be approximately Dfl. 100,-. All interested persons should fill out a preliminary notice of attendance and return it to the Secretary General as soon as possible, preferably before the end of 1981. This will ensure receipt of further information on the congress. Financial assistance: The organizing committee has been successful in raising funds for partial travel support for young investigators who will present a communication at the congress. Those interested in this support should indicate this on the preliminary notice of attendance. Further details will be given in the second announcement. Correspondence address: J.J. Broerse, Secretary General, 7th International Congress of Radiation Research, c/o Radiobiological Institute TNO, P.O. Box 5815, 2280 HV Rijswijk, The Netherlands, telex: 38191 repgo nl telephone: 015-140930

August 15-19, 1983

SOLAR WORLD CONGRESS - Perth, Australia, International Solar Energy Society. Congress inquiries: Mr. Barry Wood, Solar Energy Research Institute of Western Australia, P.O. Box X2275, Perth, W.A., 6000 Ph.: (09) 326 4588, Telex: AA92674

QUESTIONNAIRE:

Please respond to this questionnaire by cutting it out and mailing it to Pill-Song Song.

As an American Society for Photobiology member,
are you receiving Photochemistry and Photobiology
issues regularly?

Yes

No

Comments

Name

Send your answer to the Editor, Pill-Soon Song, Department
of Chemistry, Texas Tech University, Lubbock, TX 79409, USA

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