

Photobiology

[View the current Photobiology InDepth page on BioPortfolio.com](#) (PDF)

(<http://www.bioportfolio.com/indepth/Photobiology.html>) - Regularly Updated.

Photobiology is the scientific study of the interactions of light and living organisms. The field includes the study of photosynthesis, photomorphogenesis, visual processing, circadian rhythms, bioluminescence, and ultraviolet radiation effects. The major professional photobiology societies are the

[<http://www.photobiology.org> American Society for Photobiology], whose official journal is

[[http://www.aspjjournal.com/Photochemistry and Photobiology](http://www.aspjjournal.com/Photochemistry%20and%20Photobiology)], and the [<http://www.esp-photobiology.it>

European Society for Photobiology], whose official journal is

[<http://www.rsc.org/publishing/journals/PP/Index.asp> *Photochemical and Photobiological Sciences*]. ([From the Wikipedia article Photobiology](#).)



Recent Publications on Photobiology:

- [Conversion and conservation of light energy in a photosynthetic microbial mat ecosystem.](#)
*Here we present, to the best of our knowledge, the first balanced light...*13th November, 2009
Max-Planck Institute for Marine Microbiology, Celsiusstrasse, Bremen,- ISME J. 2009 Nov 12. ([DOI Direct Link](#))
- [Locked Chromophore Analogs Reveal That Photoactive Yellow Protein Regulates Biofilm Formation in the Deep Sea Bacterium *Idiomarina loihiensis*.](#)
*Idiomarina loihiensis is a heterotrophic deep sea bacterium with no known...*7th November, 2009
Department of Molecular Microbial Physiology, Swammerdam Institute for- J Am Chem Soc. 2009 Nov 5. ([DOI Direct Link](#))
- [DNA repair and cytokine responses.](#)
*As sunscreens do not provide complete protection against solar/UV...*5th November, 2009
Department of Dermatology, University Kiel, Kiel, Germany.- J Investig Dermatol Symp Proc. 2009 Aug;14(1):63-6. ([DOI Direct Link](#))
- [The editorial board of photochemistry and photobiology.](#)
*Idiomarina loihiensis is a heterotrophic deep sea bacterium with no known...*4th November, 2009
- Photochem Photobiol. 2009 Nov-Dec;85(6):1272-7. ([DOI Direct Link](#))
- [Does ultraviolet radiation affect the xanthophyll cycle in marine phytoplankton?](#)
*This Perspective summarizes the state of knowledge of the impact of...*16th October, 2009
Department of Ocean Ecosystems, Energy and Sustainability Research- Photochem Photobiol Sci. 2009 Sep;8(9):1295-301. Epub 2009 Aug 11. ([DOI Direct Link](#))
- [Effects of solar ultraviolet radiation on coral reef organisms.](#)
*Organisms living in shallow-water tropical coral reef environments are...*16th October, 2009
Unidad Academica Puerto Morelos, Instituto de Ciencias del Mar y- Photochem Photobiol Sci. 2009 Sep;8(9):1276-94. Epub 2009 Jun 23. ([DOI Direct Link](#))
- [Ustilago maydis accumulates beta-carotene at levels determined by a retinal-forming carotenoid](#)

[oxygenase.](#)

The basidiomycete Ustilago maydis, the causative agent of corn smut... 10th October, 2009

Department of Genetics, Faculty of Biology, University of Seville,- Fungal Genet Biol. 2009

Oct;46(10):803-13. Epub 2009 Jul 5. ([DOI Direct Link](#))

- [Do different ethnic groups need different sun protection?](#)

BACKGROUND: In the present study, the transmission of sunlight through the... 9th October, 2009

Department of Dermatology and Photobiology, Sygros Hospital, University of- Skin Res Technol. 2009

Aug;15(3):323-9. ([DOI Direct Link](#))

- [Solar capillaritis as a cause of solar purpura.](#)

Summary Appearance of purpura acutely after sun exposure is rare. We... 2nd October, 2009

Photobiology Unit and Department of Dermatology, Ninewells Hospital and- Clin Exp Dermatol. 2009

Sep 28. ([DOI Direct Link](#))

- [A time course investigation of the fluorescence induced by topical application of 5-aminolevulinic acid and methyl aminolevulinate on normal human skin.](#)

BACKGROUND: Treatment of non-melanoma skin cancers (NMSC) with topical... 30th September, 2009

Department of Photobiology, Ninewells Hospital, Dundee, UK.- Photodermatol Photoimmunol

Photomed. 2009 Aug;25(4):191-5. ([DOI Direct Link](#))

- [Use of 660-nm Diode Laser in the Prevention and Treatment of Human Oral Mucositis Induced by Radiotherapy and Chemotherapy.](#)

Abstract Objective: The aim of this multidisciplinary study was to... 22nd September, 2009

1 Photobiology and Lasertherapy Center, Vale do Paraiba University , Sao- Photomed Laser Surg.

2009 Sep 21. ([DOI Direct Link](#))

- [A review of current research in light-based technologies for treatment of podiatric infectious disease states.](#)

Recently, there has been a resurgence of interest in potential... 18th September, 2009

Nomir Medical Technologies, Inc, 307 Waverley Oaks Road, Suite 109,- J Am Podiatr Med Assoc.

2009 Jul-Aug;99(4):348-52.

- [Contrasting ability to take up leucine and thymidine among freshwater bacterial groups: implications for bacterial production measurements.](#)

Summary We examined the ability of different freshwater bacterial groups... 4th September, 2009

Laboratory of Aquatic Photobiology and Plankton Ecology, Institute of- Environ Microbiol. 2009 Aug 27.

([DOI Direct Link](#))

- [Assessment of the optical radiation hazard from a home-use intense pulsed light \(IPL\) source.](#)

BACKGROUND AND OBJECTIVES: Intense pulsed light (IPL) systems have evolved... 30th July, 2009

Photobiology Unit, Ninewells Hospital and Medical School, University of- Lasers Surg Med. 2009

Sep;41(7):534-9. ([DOI Direct Link](#))

- [The sunburn response in human skin is characterized by sequential eicosanoid profiles that may mediate its early and late phases.](#)

Sunburn is a commonly occurring acute inflammatory process, with dermal... 9th July, 2009

Photobiology Unit, Dermatological Sciences, University of Manchester,- FASEB J. 2009

Nov;23(11):3947-56. Epub 2009 Jul 7. ([DOI Direct Link](#))

Photobiology Clinical Trials:



- [Placebo-Controlled Assessment of the Effect of a Food Supplement on Skin Protection After Exposure to UV Radiation](#)



Photobiology Patents:

- 7553667- [Regulation of gene expression using chromatin remodelling factors](#)
- 7572629- [Multiple gene transcription activity assay system](#)
- 7572888- [Methods of assaying receptor activity and constructs useful in such methods](#)
- 7575589- [Light-emitting device and method for providing phototherapy to the brain](#)
- 7582276- [Nanoscale rutile or anatase oxide and method for producing same](#)
- 7582653- [Mercaptophenyl naphthyl methane compounds and synthesis thereof](#)
- 7582807- [Regulation of gene expression using chromatin remodelling factors](#)
- 7585514- [Administration of agents mimicking DOPAchrome tautomerase \(TRP-2\) activity for protecting hair follicle melanocytes](#)
- 7585857- [Cytotoxic agents comprising taxanes and their therapeutic use](#)
- 7586604- [Optical apparatus](#)
- 7586618- [Distinguishing non-resonant four-wave-mixing noise in coherent stokes and anti-stokes Raman scattering](#)
- 7570412- [Reversible recording material and displaying element](#)
- 7569130- [Fluorescent detection of proteins in polyacrylamide gels](#)
- 7553959- [Fluorescent dye composition and target labeled therewith](#)
- 7556843- [Photosensitive resin composition](#)
- 7557068- [Evolving new molecular function](#)
- 7558416- [Apparatus and method for measuring photodamage to skin](#)
- 7560574- [Halogenated rhodamine derivatives and applications thereof](#)
- 7563615- [Apparatus and method for automated monitoring of airborne bacterial spores](#)
- 7563621- [Absorbing organic reagents into diagnostic test devices by formation of amine salt complexes](#)
- 7563819- [Esters of 5-aminolevulinic acid as photosensitizing agents in photochemotherapy](#)
- 7566444- [Versatile hydrophilic dyes](#)
- 7566537- [Labelled nucleotides](#)
- 7588702- [Method of quenching electronic excitation of chromophore-containing organic molecules in photoactive compositions](#)
- 7588767- [Microorganisms for therapy](#)
- 7588771- [Microorganisms for therapy](#)
- 7599732- [Method and system for near-infrared fluorescence contrast-enhanced imaging with area illumination and area detection](#)
- 7601298- [Method for processing and treating a biological fluid with light](#)
- 7601805- [Photoprotein with improved bioluminescence](#)
- 7606274- [Mid-IR instrument for analyzing a gaseous sample and method for using the same](#)
- 7608419- [Method and apparatus for detecting and quantifying bacterial spores on a surface](#)
- 7608557- [Highly active photocatalyst and process for producing the same](#)
- 7608642- [Wound and skin care compositions](#)
- 7608715- [Fluorescent brighteners, methods of preparation thereof, fluorescent brightener compositions, and methods of preparation and uses thereof](#)
- 7611737- [Antiwrinkle agent and skin cosmetic composition](#)

- 7611862- [Method and apparatus for detecting and quantifying bacterial spores on a surface](#)
- 7598390- [Fluorescent chemical compounds having high selectivity for double stranded DNA, and methods for their use](#)
- 7598088- [Optical imaging method and system for characterization and mapping of tissue lesions](#)
- 7588777- [Surface cross-linked superabsorbent polymer particles and methods of making them](#)
- 7588880- [Incorporable photoinitiator](#)
- 7592435- [Modified nucleosides and nucleotides and uses thereof](#)
- 7592449- [Structural carotenoid analogs for the inhibition and amelioration of disease](#)
- 7592539- [Solid state photosensitive devices which employ isolated photosynthetic complexes](#)
- 7593763- [Non-invasive in vivo measurement of macular carotenoids](#)
- 7595162- [Methods of labeling polynucleotides with energy transfer dyes](#)
- 7595375- [Fluorescent protein](#)
- 7597825- [Method of quenching electronic excitation of chromophore-containing organic molecules in photoactive compositions](#)
- 7598086- [Photoelectrochemical determination of chemical oxygen demand](#)
- 7611909- [Near infrared chemiluminescent acridinium compounds and uses thereof](#)

Resources from the [NCBI](#) used in this document, [NCBI's standard disclaimer applies](#).

Nothing in this document should be used in place of personal medical advice from your own qualified medical practitioner. See BioPortfolio.com [User Agreement](#)

Send comments and feedback to:

Peter Barfoot Managing Director, BioPortfolio Ltd.

UK Tel: (+44) 1300 321501

USA Voicemail and Fax: (+1) 415 680 2472

[Peter Barfoot peter.barfoot@bioportfolio.com](mailto:peter.barfoot@bioportfolio.com)

All rights reserved. All other trademarks recognized.

BioPortfolio Limited is registered in England & Wales at Stafford House, 10 Prince of Wales Road, Dorchester, Dorset, DT1 1PW, UK. No.3312883 VAT No. GB 744 6483 10

Copyright 1997-2009 - BioPortfolio Limited.

