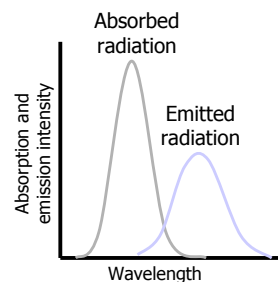
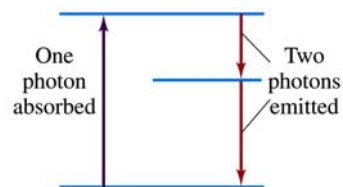


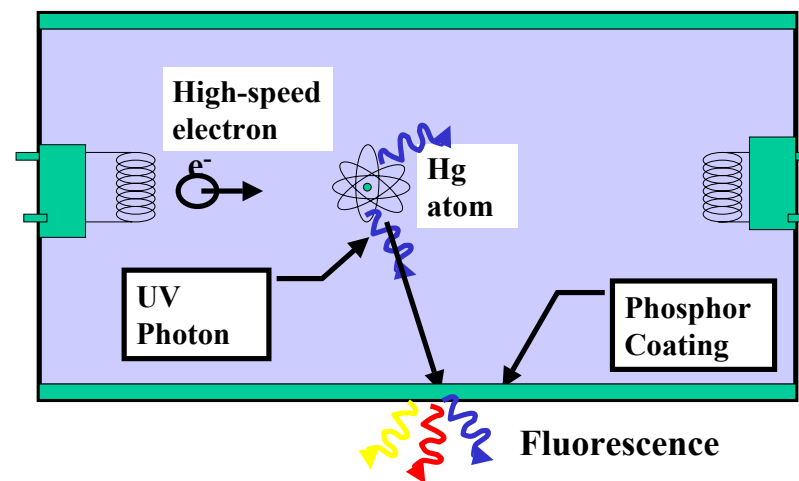
Fluorescencja i fosforescencja

• Fluorescencja

- przejście atomu do stanu wzbudzonego w wyniku absorpcji fotonu,
- natychmiastowy powrót do stanu podstawowego poprzez emisję jednego lub dwu fotonów o niższej energii (większej długości fali).
- czas opóźnienia od fs do ns

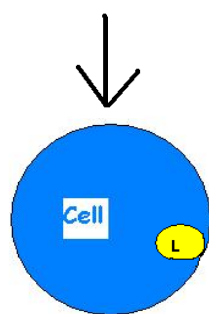


Lampa fluorescencyjna

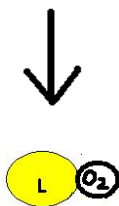


Schemat bioluminescencji

„luciferin” w komórce.



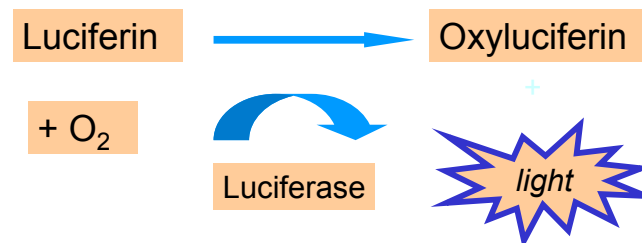
Gdy luciferin łączy się z tlenem,

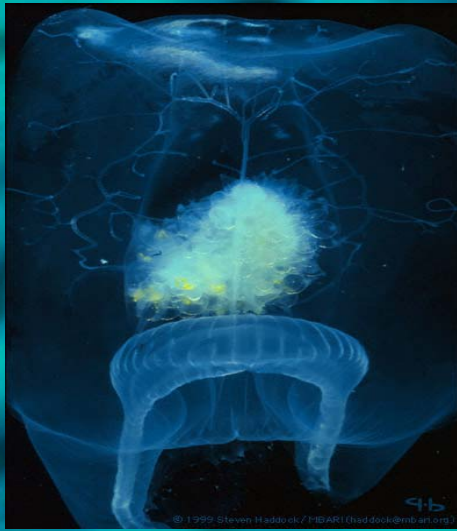


Uwalnia się energia.



Schemat reakcji





This is a Praya Dubia and is said to be the longest creature on Earth, stretching for more than 50 meters.



This is an Atolla vanhoffeni and is abundant throughout the world.



This is called a Tomopteris and is one of the very few organisms that produce yellow light. Those small clear spheres within the organism are eggs, which will be released into the water.



I don't know what this is called, but it sure looks interesting.

A. Bacteria

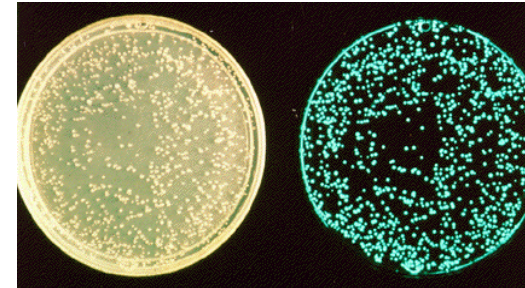


Image by: <http://www.mcb.harvard.edu/hastings/Images/bacteria.gif>

B. Jellyfish

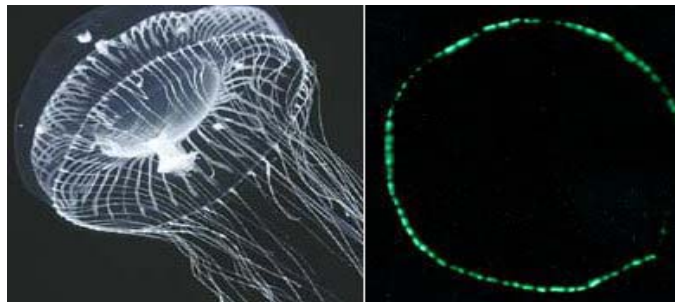


Image by: C.E. Mills

Robaczek świętojański



Images by: <http://www.eps.org/leafon/animals.html> and <http://www.troyb.com/photo/gallery/086-32-Firefly.html>

Other Bioluminescent Organisms



www.europa.com/edge/of/CyberSpace/deep2.html



www.educationalimages.com/it050013.htm



<http://lifesci.ucsb.edu/~biolum/>



<http://www.nhpa.co.uk/nhpa/az85/az85.htm>



<http://www.nies.go.jp/seibutsu/index-e.html>



Image by Michael Bjornbak