

معلومات المقرر * (Course Information):

اسم المقرر:	كيمياء ضوئية
رقم المقرر:	CHM336
اسم ورقم المتطلب السابق:	اختباري
اسم ورقم المتطلب المرافق:	لا يوجد
مستوى المقرر:	السادس
الساعات المعتمدة:	٢
Module Title:	Photochemistry
Module ID:	CHEM336
Prerequisite (Co-requisite) :	Elective
Co-requisite :	None
Course Level:	٦th level
Credit Hours:	٢

Module Description

وصف المقرر :

The course covered: Basic rules in photochemistry, definition of light, photon.
The laws of photochemistry: Laws of Gruthus, Einstein ,Beer Lambert and Perre. Electronic transitions, absorption of light, Potential Energy Curve. Franck–Condon principle. Jablonski energy diagram
Dissolution of excited state, equation of dissolution of excited state
Fluorescence, Phosphorescence .Photochemical reaction.
Laser: type of Laser, Danger of Laser. Sun radiation. Applications of sun energy,





Module Aims

1	Studying the light , photon, Electromagnetic Radiation.	١
2	Studying the laws of photochemistry	٢
3	Studying electronic transitions, absorption of light,	٣
4	Studying potential energy curve. Franck–Condon principle	٤
5	Studying dissolution of excited state, equation of dissolution of excited state	٥
6	Studying fluorescence, Phosphorescence,	٦
7	Studying laser, sun radiation.	٧

Learning Outcomes:

successful students will be able to:

1	Define the light and photon nature	١
2	Discuss laws of photochemistry	٢
3	Knowledge of the electronic transitions, absorption of light	٣
4	Explain potential energy curve	٤
5	Knowledge of dissolution of excited state, equation of dissolution of excited state	٥
6	Differentiate between fluorescence, Phosphorescence	
7	Compare between types of laser	
8	Knowledge of sun energy .	





Handwritten text in Arabic, likely a signature or name, located at the bottom left of the page.

Course Contents:

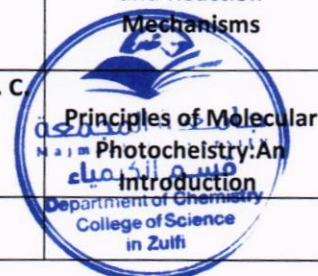
محتوى المقرر:

ساعات التدريس (Hours)	عدد الأسابيع (Weeks)	قائمة الموضوعات (Subjects)
4	٢	Basic rules in photochemistry, definition of light, photon.
٤	٢	The laws of photochemistry: Laws of Gruthus, Einstein ,Beer Lambert and Perre.
٤	٢	Electronic transitions, absorption of light
٤	٢	Potential Energy Curve. Franck–Condon principle. jablonski energy diagram
٤	٢	Dissolution of excited state, equation of dissolution of excited state
٢	١	Fluorescence, Phosphorescence
٢	١	Photochemical reaction
٢	١	Danger of Laser Laser: type of Laser,
٤	٢	Sun radiation. Applications of sun energy

Textbook and References:

الكتاب المقرر والمراجع المساندة:

ISBN	سنة النشر Publishing Year	اسم الناشر Publisher	اسم المؤلف (رئيسي) Author's Name	اسم الكتاب المقرر Textbook title
٩٧٨٠٤٧٠٠١٤٣٦	٢٠٠٩	A John Wiley & Sons	Brian Wardle	Principles and Applications of Photochemistry
٠٧٧٦-١٩٤٧٧	٢٠٠٩	Johnson and Johnson Company	Yuri V. Il'ichev	PHOTOCHEMISTRY Theoretical Concepts and Reaction Mechanisms
	٢٠٠٨		Nicholas J. Turro, J. C.	Principles of Molecular Photochemistry: An Introduction





* يتم تعبئة معلومات المقرر فقط باللغتين العربية والانجليزية وباقي المعلومات بلغة التدريس المعتمدة ويكرر لكل مقرر في الخطة الدراسية

* Course Information should be filled in Arabic and English. Other information should be filled using the approved teaching language at the college.



