شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومـــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـسـم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون آية تغيرات

يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %

بعض الوثائق الأصلية تالفة

بالرسالة صفحات

لم ترد بالأصـــل

LIGHT - INDUCED REACTIONS ON TiO_2 SURFACES

Thesis Submitted
By

HODA MOHAMED REFAAT GALAL
B. Sc. (Chemistry) 1997

To
CHEMISTRY DEPARTMENT
FACULTY OF SCIENCE
AIN SHAMS UNIVERSITY

For
M. Sc. DEGREE IN CHEMISTRY

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2- Dr. G. M.A. Attia ---------

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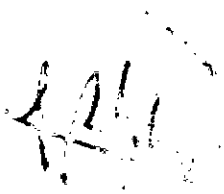
Chairman of the Chemistry Department



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Key words

AOPs	Advanced oxidation processes
A	Radius of the cavity in which the fluorophore resides
c	Speed of light
CB	Conduction band
D	Donar species
ε	Dielectirc constant
E_{redox}	Redox potential
E_f	Nernest potential
EV	Electron volt
e^-_{cb}	Electron in the conduction band
e^-_{tr}	Trapped conduction-band electron
E_{cb}	Potential of conduction band
E_{vb}	Potential of valance band
E_{bd}	Potential of band gap of semiconductor
F	Faraday constant
F	Radiative decay rate
F	Fluorescence intensities in absence of quencher
F	Fluorescence intensities in presence of quencher
Fs	Femto second
ΔG	Free energy Difference on the redox process
h	Planck's constant
h^+_{vb}	Holes in the valance band
ICT	Internal charge-transfer
IUPAC	International Union of Practical and Applied Chemistry
K_{nr}	Nonradiative decay rate

K_q	Bimolecular quenching constant
K_{sv}	Stern-Volmer constant
K	Rate constant
L_D	Debye length
I_r	Ohmic drop
LE	Locally excited state
NHE	Normal hydrogen electrode
n	Refractive indices
ns	Nanosecond
nm	Nanometer
m	Meter
m*	Electron effective mass
mv	Millivolt
mol	Mole
pH	Negative log of hydrogen ion concentration
pI	Isoelectric point
pK^{s}_{a1}	Negative log of the microscopic acidity constant for the first acid dissociation
pK^{s}_{a2}	Negative log of the microscopic acidity constant for the second acid dissociation
pH_{zpc}	pH of zero point of charge
ps	Picosecond
r	Distance from center
TICT	Twisted internal charge transfer state
T_1	First triplet state
τ	Lifetime
$t_{0.5}$	Half lifetime
τ_0	Lifetime in absence of quencher
S_o	Singlet ground electronic state
S_1	First excited singlet electronic state
S_2	Second excited singlet electronic state
VB	Valance band