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التوثيق الإلكتروني والميكروفيلم

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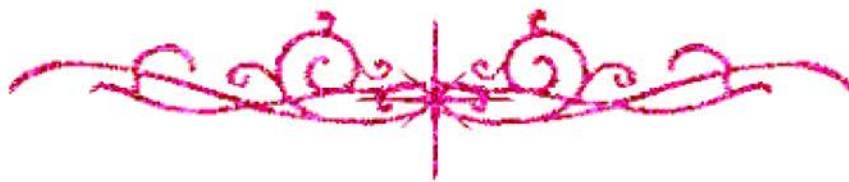
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B14/VS

**PHOTOCHEMICAL PROPERTIES OF SOME
COMPLEX AND SIMPLE CHEMICAL
MOLECULES OF INDUSTRIAL POTENTIALS**

Thesis Submitted

By

**Karima Abdel Raouf Ali
B. Sc. (Chemistry) 1983**

To

**CHEMISTRY DEPARTMENT
FACULTY OF SCIENCE
AIN SHAMS UNIVERSITY**

For

**PARTIAL FULFILLMENT OF THE
REQUIREMENT
OF
M.Sc. DEGREE IN CHEMISTRY**

Thesis Advisors

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MOLECULES OF INDUSTRIAL POTENTIALS**

This Thesis has been approved by:

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Approval



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Key Words

Abbreviation	meaning
8-AQ	8-aminoquinoline
AOTs	advanced oxidation technologies
C	molar concentration
CT	charge transfer
E	energy absorbed or emitted
eV	electron volt
ϵ_{CB}	electrons of conduction band
F	fluorescence intensity
f_i	fractional fluorescence intensity
h	Planck's constant
HOMO	highest occupied molecular orbital
I_a	absorbed light intensity
IC	internal conversion
I_f	fluorescence intensity
I_0	incident light intensity
ISC	intersystem crossing
K_f	rate constant of fluorescence

K_f	rate constant of fluorescence
$K_{\text{formation}}$	rate constant of complex formation
K_i	sum of rate constants for all radiationless processes
K_{ISC} process	rate constant of intersystem crossing
K_0	static quenching rate constant
K_q	bimolecular quenching rate constant
K_{SV}	Stern-Volmer rate constant
K_T	rate of energy transfer from adonor to an acceptor
l	optical path length
LUMO	lowest unoccupied molecularorbital
nm	nanometer
Q	quencher
r	the distance between donor and acceptor in energy transfer process
R_0	Föster constant
S-V	Stern-Volmer
S_n	singlet states
TiO_2	titanium dioxide
T_n	triplet states