



**3RD. INTERNATIONAL CONFERENCE
SOLAR ENERGY STORAGE AND
APPLIED PHOTOCHEMISTRY,
Cairo, Egypt
8-14 January 1995**

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**THE PROGRAM &
THE LIST OF PARTICIPANTS**

REPORT DOCUMENTATION PAGE

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Third International Conference on
**SOLAR ENERGY STORAGE AND APPLIED
PHOTOCHEMISTRY**

8-14 JANUARY 1995, CAIRO, EGYPT

HONORARY PRESIDENTS OF THE CONFERENCE

PROFESSOR A. M. ABDEL-HAFEZ

THE PRESIDENT, AIN SHAMS UNIVERSITY

PROFESSOR A. M. RABEI

DEAN, FACULTY OF SCIENCE

CHAIRMAN

M. S. A. ABDEL-MOTTALEB

ORGANIZED BY

PHOTOENERGY CENTER

FACULTY OF SCIENCE, AIN SHAMS UNIVERSITY

IN COOPERATION WITH THE DEPARTMENT OF CHEMISTRY

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for their generous financial and moral support**

Ministry of Education

Ministry of Petroleum

Ministry of International Cooperation

Cairo Governorate

International Centre for Science and High Technology

[ICTP, Trieste, Italy]

International Science Foundation (ISF)

European Research Office (ERO), US Army

Naval Research Office in Europe, US Navy

**A session will be sponsored by European Research Office
of US Airforce**

GENERAL INFORMATION

On behalf of the organizing committee, I would like to welcome you to Egypt. I hope that you will enjoy your stay here in Egypt and benefit from the scientific contents of the Conference.

His excellency the Governor of Cairo and Professor Abdel-Hafiz, the president of Ain Shams University invite all of you to a Welcome reception Cocktail party near Aramis Hall at 21.00 hs on Sunday 8 January, after the opening lecture.

Accommodation

A block of rooms has been reserved to accommodate the conference participants at Le Meridien Hotel (Heliopolis) at a special reduced rates. Continental Breakfast, Taxes and Services are inclusive.

Any extra expenses (for example, Laundry, long distant telephone calls, minibar, other restaurant charges, ..., etc.) should be paid directly to the Hotel. Therefore, please do not forget to make the necessary check with the hotel registration-information section to pay for the extra before leaving. This would be greatly appreciated.

Lunches (Open Buffet)

Please use the enclosed appropriate coupon. Make sure you show the waiter the coupons as you entered the restaurant. Drinks are not inclusive. Therefore, you have to pay for your drinks to the hotel directly.

Extra Lunch coupons (LE 40.0 or \$12.0 each) are available at the registration/ information desk of the conference.

Dinners (Open Buffet)

Coupons are available at special rate for participants (LE 50.0 or \$15.0). Ask for coupons at the Conference registration desk.

Transportation

A shuttle bus service is available free of charge, to the Airport. Please do inform LeMeridien's information desk about the details of your flight from Cairo. Upon request, the Hotel will manage to give you a drive to the Airport .

Social Activities

The following events are arranged, free of charge, for all participants:

Welcome Reception; Sunday 8 January after the opening session.
Excursion to the Egyptian Museum of Antiquities, Pyramids of Giza and Sphinx; Wednesday 11 January.

In addition to the above, during the scientific program we will operate *an accompanying person program* to include tours to visit some historic, Islamic and Coptic places.

Transport will depart from outside Le Meridien Hotel at 8.45 hs.

Conference Banquet;

has been shifted to Thursday 12 January. Egyptian traditional music and entertainments will be provided (Tickets: \$60). Please use the banquet coupons.

With my very best wishes.

Sabry Abdel-Mottaleb
Chairman

**INTERNATIONAL SCIENTIFIC
AND ADVISORY COMMITTEE:**

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Bolton J	(Canada)
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Calzaferri G	(Zwitzerland)
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Wilkinson F	(UK)
Yanagida S	(Japan)
Zewail A	(USA)

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Talaat H.	(Ain Shams, Fac. Science/Physics)
Zahra A. M.	(Ain Shams, Fac. Education/Chemistry)

ORGANIZING COMMITTEE:

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Abdel-Hameed F.	(ASU)
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Khalil M. H.	(ASU)
Salem M. A.	(ASU)
Souaya E. Raymond	(ASU)

THE PROGRAM

SUMMARY TIMETABLE

FOR SES&APC CONFERENCE '95

Date	Morning 08.45-12.30	Afternoon 14.00-17.50	Evening 18.30-
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SUNDAY 8 JANUARY 1995			
	REGISTRATION	OPENING [ABDEL-MOTTALEB] OPENING LECTURE [LOUTFY R.] GRAETZEL M. RECEPTION	

MONDAY 9 JANUARY 1995			
<p>PLENARY LECTURES [EL-BAYOUMI O.] GUILLET J. CALZAFERRI G.</p> <p>INVITED LECTURES [AZUMI T.] BOXER S. OPPENLAENDER T. FITZMURICE D.</p>		<p>PLENARY LECTURES [KOSSANYI J.] HILL C. BRASLAVSKY S.</p> <p>INVITED LECTURES [TOLBERT L.] TESTA A. MAZZUCATO U. BADR M. Z.</p>	POSTER A [DOEPP D.]

TUESDAY 10 JANUARY			
<p>PLENARY LECTURES [HILL C.] AZUMI T. LOUTFY R. O.</p> <p>INVITED LECTURES <i>HALL (1)</i> [MAZZUCATO U.] LEUPOLD D. KURRECK H. HOFFMAN M.</p>		<p>PLENARY LECTURES [ZIMMERMAN H.] GIARDINI A. SONG P.-S.</p> <p>INVITED LECTURES <i>HALL (1)</i> [TESTA A.] FASSLER D. ZACHARIASSE K.</p>	POSTER B [GEORGE M]
<p><i>HALL (2)</i> [MEL'NIKOV M.] KRISHNAN V. AQUILANTI V. ZENKEVICH E. I.</p>		<p><i>HALL (2)</i> [KRISHNAN V.] FARA L. EREMINKO A.</p>	

WEDNESDAY 11 JANUARY	EGYPTIAN MUSEUM, PYRAMIDES AND SPHINX
[LUNCH WILL BE PROVIDED]	

PROGRAM

THE PROGRAM OF THE CONFERENCE IS AS FOLLOWS

1st DAY SUNDAY 8 JANUARY 1995

14.00 - 18.00	REGISTRATION AT SETI ROOM
18.30 - 19.15	OPENING CEREMONY ARAMIS HALLS 1+2 <i>ABDEL-MOTTALEB M. S. A. AND LOUTFY R.</i>
19.30 - 20.30	OPENING LECTURE CHAIRMAN <i>LOUTFY R. (CANADA)</i>
L 1	<i>GRAETZEL M. (ZWITZERLAND)</i> NANOCRYSTALLINE SOLAR CELLS; SCIENTIFIC PRINCIPLES AND ECONOMIC PERSPECTIVES
20.30 - 21.30	RECEPTION

2nd DAY MONDAY 9 JANUARY 1995

INVITED LECTURES	ARAMIS HALLS 1 + 2 CHAIRMAN: <i>EL-BAYOUMI O (USA)</i>
L 2	8.45 - 9.40 <i>GUILLET, J. (CANADA)</i> SOLAR SYNTHESIS OF HYDROGEN PEROXIDE
L 3	9.40 -10.35 <i>CALZAFERRI G. (SWITZERLAND)</i> DYE MOLECULES IN ZEOLITES AS ARTIFICIAL ANTENNA SYSTEMS
10.35 -10.45	COFFEE BREAK
INVITED LECTURES	CHAIRMAN: <i>AZUMI T. (JAPAN)</i>
L 4	10.45-11.20 <i>BOXER STEVEN G. (USA)</i> MECHANISM OF THE EARLY STEPS IN PHOTOSYNTHESIS
L5	11.20-11.55 <i>OPPENLAENDER Th. (GERMANY)</i> NOVEL VACUUM-UV-(VUV) AND UV-EXCIMER FLOW THROUGH PHOTORECTORS FOR WAST WATER TREATMENT AND FOR WAVELENGTHS SELECTIVE PHOTOCHEMISTRY

L 6	11.55-12.35	FITZMAURICE D. (IRELAND) HETROSUPRAMOLECULAR CHEMISTRY: AN APPROACH TO MODULATING FUNCTION IN MOLECULAR DEVICES.
12.30 - 14.00		LUNCH BREAK
L 7	14.00-14.55	CHAIRMAN: KOSSANYI J. (FRANCE) HILL CRAIG L. (USA) EXCITED STATE CHARACTERISTICS AND NEW UNACTIVATED C-H BOND FUNCTIONALIZATION PHOTOCATALYSIS BY $W_{10}O_{32}^{4-}$
L 8	14.55-15.50	BRASLAVSKY S. (GERMANY) TIME-RESOLVED PHOTOTHERMAL MEASUREMENTS ON BIOLOGICAL PHOTORECEPTORS
15.50 - 16.05		COFFEE BREAK
L 9	16.05-16.40	TESTA A. C. (USA) PHOTOINDUCED PROTON TRANSFER IN SUBSTITUTED PYRIDINES
L 10	16.40-17.15	MAZZUCATO UGO (ITALY) PHOTOCHROMIC MATERIALS: A COMPREHENSIVE KINETIC THERMO-DYNAMIC AND PHOTOCHEMICAL STUDY
L 11	17.15-17.50	BADR Z. (EGYPT) PHOTOLYSIS AND THERMOLYSIS OF ACID AMIDES AND SULPHONAMIDES; MECHANISTIC STUDIES
POSTER SESSION A		AMINOPHIS CHAIRMAN: DOEPP D. (GERMANY) 17.50-21.00 AUTHORS A - E

3rd DAY TUESDAY 10 JANUARY 1995		
INVITED LECTURES		ARAMIS 1 CHAIRMAN: HILL C. L. (USA)
L 12	8.45- 9.40	AZUMI T. (JAPAN) STUDIES OF PHOTOCHEMICAL REACTIONS BY NUCLEAR SPIN POLARIZATION-DETECTED ESR SPECTROSCOPY
L 13	9.40- 10.35	LOUTFY R.O. (CANADA) A NON-SILVER DRY-PROCESSED PHOTOGRAPHIC ARTS FILM
10.35 - 10.45		COFFEE BREAK

INVITED LECTURES**ARAMIS 1**

- CHAIRMAN: MAZZUCATO U. (ITALY)**
- L 14** **10.45-11.20** **LEUPOLD D. (GERMANY)**
CHARACTERIZATION OF PHOTOSYNTHETIC ANTENNAS
BY NONLINEAR POLARIZATION SPECTROSCOPY
(FREQUENCY DOMAIN)
- L 15** **11.20-11.55** **KURRECK H. (GERMANY)**
MIMICKING PRIMARY PROCESSES OF
PHOTOSYNTHESIS MODEL COMPOUNDS, LIGHT-
INDUCED CHARGE SEPARATION.
- L 16** **11.55-12.30** **HOFFMAN M. Z. (USA)**
ELECTROLYTE AND TEMPERATURE EFFECTS IN
PHOTOINDUCED INTERMOLECULAR ELECTRON-
TRANSFER REACTIONS

INVITED LECTURES**ARAMIS 2**

- CHAIRMAN: MEL'NIKOV M. (RUSSIA)**
- L 17** **10.45-11.20** **KRISHNAN V. (INDIA)**
NON-PLANAR PORPHYRIN MOLECULAR ASSEMBLIES
- L 18** **11.20-11.55** **AQUILANTI V. (ITALY)**
NONADIABATIC ENERGY TRANSFER
- L 19** **11.55-12.30** **ZENKEVICH E. I. (BELARUS)**
DIPOLE-DIPOLE AND EXCHANGE ENERGY TRANSFER
IN DIFFERENT TYPES OF PORPHYRIN CHEMICAL
DIMERS

12.30 - 14.00**LUNCH BREAK****INVITED LECTURES****ARAMIS 1**

- CHAIRMAN: ZIMMERMAN H. (USA)**
- L 20** **14.00-14.55** **GIARDINI A. (ITALY)**
R2PI DETECTION AND SPECTROSCOPY OF VAN DER
WAALS COMPLEXES OF 4-FLUOROSTYRENE WITH
RARE GASES
- L 21** **14.55-15.50** **SONG PILL-SOON (USA)**
PHYTOCHROME AS LIGHT SENSOR FOR
PHOTOSYNTHETIC GENE ACTIVATION

15.50 - 16.05**COFFEE BREAK****INVITED LECTURES****ARAMIS 1**

- CHAIRMAN: TESTA A. (USA)**
- L 22** **16.05-16.40** **FASSLER D. (GERMANY)**
FLUORESCENCE LIFETIMES OF ADSORBED
POLYMETHINES
- L 23** **16.40-17.15** **ZACHARIASSE K. (GERMANY)**

INFLUENCE OF ENERGY GAP $\Delta E(S_1, S_2)$ AND AMINO N-INVERSION IN INTRAMOLECULAR CHARGE TRANSFER. DUAL FLUORESCENCE AND SINGLE CT-EMISSION

INVITED LECTURES ARAMIS 2

CHAIRMAN: KRISHNAN V. (INDIA)

L 24 16.05-16.40 **FARA V. L. (ROMANIA)**
PHOTOPHYSICAL AND PHOTOCHEMICAL PROPERTIES OF DYE MOLECULES IN POLYMERS USED FOR FLUORESCENT SOLAR CONCENTRATORS.

L 25 16.40-17.15 **EREMENKO A. (UKRAINE)**
PHOTOINDUCED ELECTRON TRANSFER BETWEEN MOLECULES IN SILICA MATRICES

POSTER SESSION B AMENOPHIS + HATCHEPSUT

CHAIRMAN: GEORGE M. (INDIA)

17.15-20.30 **AUTHORS F - Z**

4th DAY WEDNESDAY 11 JANUARY 1995

EXCURSION

EGYPTIAN MUSEUM

PYRAMIDS,... ETC.

TRANSPORT WILL DEPART FROM OUTSIDE

THE MERIDIEN HOTEL HELIOPOLIS

AT 08.45

<LUNCH BOXES WILL BE PROVIDED>

5th DAY THURSDAY 12 JANUARY 1995

INVITED LECTURES ARAMIS 1

CHAIRMAN: FAHMY F. (EGYPT)

L 26 8.45-9.40 **MORRISON H. A. (USA)**
PHOTOCHEMICAL REARRANGEMENTS OF OXAZRINDINES

L 27 9.40-10.35 **ZIMMERMAN H. E. (USA)**
RECENT ADVANCES IN MECHANISTIC AND EXPLORATORY ORGANIC PHOTOCHEMISTRY

10.35-10.45

COFFEE BREAK

INVITED LECTURES ARAMIS 1

- CHAIRMAN: MORRISON H. (USA)**
- L 28 10.45-11.20 **KOSSANYI J. (FRANCE)**
UNUSUALLY STRONG EMISSION FROM EXCIPLEXES
FORMED BETWEEN BENZENOID SOLVENTS AND
DIBENZOYLMETHANATBORON DIFLUORIDE
- L 29 11.20-11.55 **FUJIMURA Y. (JAPAN)**
NUCLEAR WAVEPACKET STUDY OF UNIMOLECULAR
REACTIONS IN ULTRASHORT PULSED LASER
- L 30 11.55-12.30 **LOEHMANSROEBEN H.G. (GERMANY)**
FLUORESCENCE OF POLYNUCLEAR AROMATIC
COMPOUNDS AND MINERAL OILS IN ENVIRONMENTAL
MONITORING

INVITED LECTURES ARAMIS 2

- CHAIRMAN: GRAETZEL M. (ZWITZERLAND)**
- L 31 10.45-11.20 **ALONSO-VANTE N. (GERMANY)**
THE SIGNIFICANCE OF SURFACE STATES FOR
PHOTOELECTROCATALYSIS AT THE
SEMICONDUCTOR/ELECTROLYTE INTERFACES
- L 32 11.20-11.55 **OZANAM F. (FRANCE)**
IN-SITU INFRARED STUDY OF THE INTERFACIAL
LAYER DURING THR ANODIC DISSOLUTION OF A
SILICON ELECTRODE IN A FLUORIDE ELECTROLYTE
- L 33 11.55-12.30 **ETMAN M. (FRANCE)**
Si ELECTROCHEMISTRY

12.30 - 14.00 **LUNCH BREAK**

INVITED LECTURES ARAMIS 1

- CHAIRMAN: BRASLAVSKY S. (GERMANY)**
- L 34 14.00-14.55 **TOLBERT L. M. (USA)**
EXCITED-STATE PROTON TRANSFER IN CONSTRAINED
ENVIRONMENT
- L 35 14.55-15.50 **GREVELS F.-W. (GERMANY)**
PHOTOLYSIS OF GROUP 8 METAL CARBONYLS:
TRANSIENT IR SPECTROSCOPY, PHOTOKINETICS AND
QUANTUM YIELDS OF CO SUBSTITUTION

15.50-16.05 **COFFEE BREAK**

INVITED LECTURES ARAMIS 1

L 36	16.05-16.40	CHAIRMAN: BOXER S. (USA) HAU DOU-MONG (TAIWAN, CHINA) PHOTOCHEMOTHERAPY ON EXPERIMENTAL TUMOR WITH PHOTOFRIN II AND LASER
L 37	16.40-17.15	KORPI-TOMMOLA J. (FINLAND) SELFORGANIZATION OF CHLOROPHYLLS IN HYDROCARBON SOLUTION AND IN VIVO SYSTEMS: PICO- AND FEMTOSECOND RELAXATION IN WATER BOUND CHLA AGGREGATES AND CL. TEPIDUM CHLOROSOMES.
L 38	17.15-17.55	UZHINOV B.M. (RUSSIA) EXCITED STATE PROTON TRANSFER LASERS
INVITED LECTURES		ARAMIS 2
CHAIRMAN: HOFFMAN M. (USA)		
L 39	16.05-16.40	TERENETSKAYA I. (UKRAINE) AN IN VITRO MODEL OF PREVITAMIN D PHOTOSYNTHESIS AS POSSIBLE MONITOR OF SOLAR UVB RADIATION: KINETIC STUDIES USING TUNABLE LASER
L 40	16.40-17.15	MEL'NIKOV M. (RUSSIA) PHOTORADICAL AGEING OF SOLID POLYMERS
CONFERENCE BANQUET EGYPTIAN ENTERTAINMENT STARTING FROM 19.30		

6th DAY FRIDAY 13 JANUARY 1995

INVITED LECTURES		ARAMIS 1
CHAIRMAN: CALZAFERRI G. (ZWITZERLAND)		
L 41	9.00-9.55	DUERR H. (GERMANY) MOLECULAR AND SUPRAMOLECULAR SYSTEMS IN PHOTOCHROMISM
L 42	9.55-10.50	DOEPP D. (GERMANY) REGIO- AND STEREOSELECTIVITY IN LIGHT INDUCED [4+2]-CYCLOADDITIONS OF ALPHA-CYANOENAMINES TO AROMATIC CARBONYL COMPOUNDS, NITRILES AND HYDROCARBONS
10.50 - 11.05	COFFEE BREAK	

INVITED LECTURES**ARAMIS 1****CHAIRMAN: GREVELS F.-W. (GERMANY)**

- L 43 11.05-11.40 **BILLING R. (GERMANY)**
SELECTIVE OXIDATION OF ALCOHOLS BY
DIPHENYLIODONIUM IONS IN A PHOTOINDUCED
CHAIN REACTION
- L 44 11.40-12.15 **SPANHEL Lubomir (GERMANY)**
SOL-GEL SYNTHESIS AND SPECTROSCOPIC
PROPERTIES OF NANOSCALED HYBRID MATERIALS
- L 45 12.15-12.55 **ABD-EL-AZIZ A. S. (CANADA)**
PHOTOLYSIS OF POLYAROMATIC ETHERS AND
THIOETHERS WITH PENDANT
CYCLOPENTADIENYLIRON MOIETIES

12.55 - 14.00

LUNCH BREAK**INVITED LECTURES****ARAMIS 1****CHAIRMAN: LOUTFY R. (CANADA)**

- L 46 14.00-14.55 **BOLTON J. (CANADA)**
SOLAR DETOXIFICATION OF WASTE WATER
- L 47 14.55-15.50 **HARRIMAN A. (FRANCE)**
PHOTOCHEMOTHERAPY WITH CYANINE DYES

15.50 -16.20

CLOSING REMARKS**ABDEL-MOTTALEB M. S. A.****COFFEE AND REFRESHMENTS**

12/21/94 07:37 AM

**LIST OF INTERNATIONAL PARTICIPANTS,
PRINCIPAL AUTHORS AND
SCIENTIFIC CONTRIBUTIONS**

**KEY: 1 P A1 = PAGE 1 IN ABSTRACT'S BOOK, POSTER NUMBER A1
LEC 45 = LECTURE NUMBER 45 IN THE PROGRAM
FULL LIST OF AUTHORS AND ADDRESSES ARE GIVEN IN THE BOOK OF
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- ABDEL-LATIF F. M. (EGYPT) 3**
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- ABDEL-RAZIK E. A. (EGYPT) 4**
P A3
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2- SINGLET-SINGLET ENERGY TRANSFER BETWEEN COUMARIN-4 - WATER EXCIPILEX AND COUMARINE314 IN AQUEOUS AND MICELLAR MEDIA
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