PERSONAL INFORMATION



Mostafa Shawky Eraky Mohamed

Shoubrabas, Shebeen Elkom, Monoufia, Egypt

4 048 - 3408968 (+20) 010 696 15 484 (Egypt)

(+33) 755199110 & 658592693 (France)

mostafashawki87@gmail.com

mostafashawki87@yahoo.com

Sex: Male | Date of birth: 01/03/1987 | Nationality: Egypt

Marital status: Married | Military status: Exemption

EDUCATION	(Reverse Chronological)
From 03 / 2017	PhD Studies in physical chemistry (Solar Cell Applications) – Menoufia
12 / 2020	University & CMRDI
From 02 / 2019	PhD Fellowship at Opto Lab Institute of Institute of Electronic,
To 09 / 2019	Microelectronic and Nanotechnology (IEMN) – Lille – France.
From 09 / 2013	Master of Science in physical chemistry (Solar Cell Applications) –
To 01 / 2016	Menoufia University & CMRDI (1/2016)
From 9 / 2011	Pre-master Studies - Monoufia University - Chemistry Department -
To 05 / 2013	Good in (9 / 2008)
From 09 / 2004	Bachelor of Science - Menoufia University - Chemistry Department -
To 09/2008	Excellent with degree of honor (88.6 %) in (9 / 2008)
WORK EVENIENCE	(Payaras Chranalagias)
WORK EXPERIENCE	<u> </u>
From 04 / 2016	Job title: Assistant Researcher
Up to now	Place: Central Metallurgical Research and Development Institute
	(CMRDI), El- Tebeen - Helwan - Cairo - Egypt
From 07 / 2012	Job title: Researcher Assistant
To 04 / 2016	Place: Central Metallurgical Research and Development Institute
	(CMRDI), El- Tebeen - Helwan – Cairo – Egypt
From 02 / 2012	Job title: Chemist
To 07 / 2012	Place: Blood Bank, Menoufia University Hospital – Monoufia – Egypt
From 04 / 2011	Job title: Specialist (chemist)
To 01 / 2012	Place: Egyptian Atomic Energy Authority (AEA)
From 11 / 2008	Job title: Quality Engineer
To 10 / 2010	Place: International Company for Mining and Investment (ICMI), El-
	Sadat town - Menoufia
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TRAINING	(Chronological)	
DATE	COURSE NAME	PLACE
(6,7)/2008	Peptide Synthesis	Peptide chemistry department National Research Center (NRC) - Egypt
(9-12)/2010	Cycle of Human Development	National Research Center (NRC) - Egypt
(24-27)/12/2010	Biological Safety	American Research Institute (NAMERO 3) - Abasyia - Cairo - Egypt
(4-12)/1/2011	Nanotechnology	Central Metallurgical Research and Development Institute (CMRDI), Helwan - (Egypt)
(14-18)/1/2011	Renewable Energy	New and Renewable Energy Authority (NREA) - Cairo - Egypt
(20-25)/1/2011	Analytical and Organic Chemistry Basics	Petroleum Research Institute (EPRI) - Cairo - Egypt
(26-30)/1/2011	Fermentation Processes	VACSERA - Giza - (Egypt)

PERSONAL SKILLS

Mother tongue	Arabic					
Other language(s	UNDER	STANDING	SPE	AKING	WRITING	
English	Listening	Reading	Spoken Interaction	Spoken Production		
	B1	B2	B2	B1	B2	
			Certificate (Score			
French	A1	A2	A2	A1	A2	
	 Good communication skills gained through my experience in previous work Good command of quality control processes 					
Job-Related Skills	 Worked also as a lecturer in special centers, give lectures in Physical Chemistry, Thermodynamics, Solid State Chemistry, Inorganic Chemistry Electrochemistry, Analytical Chemistry 					
Career Related Experience Processes	 Chemical Precipitation, Filtration, Titration, Chemical Bath Deposition (CBD), Hydro/Solvothermal, Sol-Gel Solid State, Dipping, Calcination Processes, Cyclicvotammetry, Galvanoststic, Potentiostatic Electrodepositon, Electrochemical Impedance Spectroscopy (EIS) Measurements, Magnetron Sputtering Physical Vapor Deposition (PVD), Lithography, Current Voltage Characteristics (I-V) Measurements, Spin Coating, Print Screening, Thin Films Thickness Measurement, Annealing Processes 					
Equipments & Tools	 SEM, Different Models Of UV-VIS-NIR Spectrophotometers, Different Models 					
Hoppies	Reading scie	ntific and litera	ture books, playi	ng football and list	ening to music	

ADDITIONAL INFORMATION

Conferences

- I've participated in **Five** international conferences and **many** workshops:-
- The First International Conference on Advanced Basic & Applied Sciences
 (ABAS) including Egyptian-Sweden Workshop on Advanced Materials Hurghada Egypt (6-8 November 2012), Participation with a poster
 (http://allevents.in/hurghada/1st-international-conference-on-advanced-basic-and-applied-sciences-abas-including-egyptian-sweden-w/415892041779248)
- 2. The Fifth International Conference for Water, Energy, Climate and Food Nexus in the Arab Countries (15, 16 March, 2015) Cairo University Cairo, Egypt, Oral presentation (Synthesis of Cu₂SnS₃ nanostructure for solar cell energy applications (http://www.ausde.org/)
- 3. The 9th International Conference on Nano-Technology in Construction (NTC) (17-21 March, 2017), Sharm El-Sheikh, Egypt, **Oral presentation** (Synthesis, Characterization and Photo-electrochemical Performance of Cu₂SnSe₃ and Ag₈SnSe₆ Nano-powders for Solar Cell Applications) (http://www.ntchbrc.com/)
- **4.** The 4th International Conference on Advanced Sciences (ICAS4), (7-10 November, 2017), Hurghada, Egypt, **Oral presentation** (Synthesis, Characterization and Performance of Cu₂SnSe₃ for Solar Cell Application) (http://icas4.webs.uvigo.es/)
- **5.** The 10th international on Nano-Technology in Construction (NTC) (13-17April 2018), Hurghada, Egypt, **Oral presentation** (Synthesis, Characterization and Photoelectrochemical Performance of Cu₂SnSe₃ and Ag₈SnSe₆ Nanopowders for Solar Cell Applications) (http://www.ntchbrc.com/)

Presentations

Workshops

• I've performed more than **Ten** presentations in different scientific events including M.Sc., PhD thesis registration, discussion, and three internal projects.

 German Science Day workshop at The German Academic Exchange Service (DAAD) in Egypt (28th May 2016)

(http://www.dwz-kairo.de/content/german-science-day-2016)

• Italian-Egyptian Workshop in solar energy and related materials (17-19/10/2016), Participation with a poster, (Synthesis, characterization and electrochemical performance of Cu₂SnSe₃ and Ag₈SnSe₆ for solar cell application

(http://images.usc.edu.eg/uploads2/files/Brochure%20Registration%20Form.pdf)

- Egyptian National Research Centre (NRC) workshop about writing, Papers,
 Theses, Proposal for Grants
- I've attended six scientific modules in the German Academic Exchange Service (DAAD) in Cairo about Academic Skills, Soft Skills and Intercultural Competence by experienced German and Egyptian trainer staff
- The new trends in Nanotechnology Workshop, CMRDI, Cairo, Egypt
- Academy of Scientific and Research Development (ASRT) workshop in using Endnote and Mendeley programs for references, ASRT, Cairo, Egypt

Publications

- I've published Four papers in impacted journals and One in conference: -
- 1. Mostafa Shawky^{1,*}, Atef Shenouda¹, El-said El-shereafy², and Ibrahim Ahmed Ibrahim¹, Synthesis, Characterization and Performance of Cu₂SnS₃ for Solar Cell Application, International Journal of Scientific & Engineering Research, Volume 6, Issue 7, July-2015, 1447,ISSN 2229-5518 (Frist & Corresponding author)
- **2. Mostafa Shawky**^{1,*}, Atef Shenouda¹ and Ibrahim Ahmed Ibrahim¹, Synthesis, characterization and electrochemical performance of Cu₂SnSe₃ for solar cell application, Journal of Renewable Energy and Sustainable Development (RESD), Volume 3, Issue 3, December 2017 ISSN 2356-8569, doi: 10.21622/RESD.2017.03.3.244 (Frist & Corresponding author)
- 3. Mostafa Shawky^{1,*}, Atef Shenouda¹ and Ibrahim Ahmed Ibrahim¹, Synthesis, Characterization and Photoelectrochemical Performance of Cu₂SnSe₃ and Ag₈SnSe₆ Nano-powders for Solar Cell Application, ICAS4 conference (Frist & Corresponding author)
- **4. Mostafa Sh. Eraky**^{1,a,*}, Atef Y. Shenouda^{2,b} and Ibrahim A. Ibrahim^{3,c}, El-Sayed E.El-Shereafy^{4,d}, Synthesis, Characterization and Photoelectrochemical Performance of Cu₂SnSe₃ and Ag₈SnSe₆ Nanopowders for Solar Cell Applications (Frist & Corresponding author)
- **5. M. S. Eraky,** M. M. S. Sanad, ^{1,a,*} E. M. El-Sayed, ¹ Atef Y. Shenouda, ¹ and El-Sayed El-Sherefy², Phase transformation and photoelectrochemical characterization of Cu/Bi and Cu/Sb based selenide alloys as promising photoactive electrodes, AIP Advances, Volume 9, October 2019, doi: 10.1063/1.5120318 (**Frist author**)

Projects

- I've Completed Three indoor research projects and enrolled in another Two: -
- 1. Synthesis and Characterization of Cu₂SnS₃ and Ag₂SnS₃ Compounds for Solar Cells Energy Application
- 2. Synthesis and characterization of copper and silver tin selenide compounds for solar cells application
- **3.** A study on the physical and electrochemical properties of CuBi_xSb_{1-x}Se₂ Compound for Solar Cells Energy Application
- **4.** Processing and characterization of different chalcogenide compounds for photo-electrochemical applications

Scholarships

- I've acquired a full two years M. Sc. scholarship entitled Scientists of Next Generation (SNG), fully funded by the Egyptian Academy of Scientific Research and Technology (ASRT) at the Egyptian Atomic Energy Authority (EAEA), Anshas, El Sharkeya, Egypt in October 2010, I did not complete it because I've employed at CMRDI.
- I've acquired a full three years **PhD scholarship** funded by **Taiwan** government, but not enrolled in it due because of financial obstacles.
- I've completed a **six months PhD fellowship** funded by the Egyptian Ministry of Higher Education and Scientific research (MHESR), at the Institute of Electronic, Microelectronic and Nanotechnology (IEMN), Lille, France (from 02-2019 to 09-2019).



Faculty of Science

STUDENT ACADEMIC RECORDES IN B.SC., STUDIES

Student No: --- / 2004 / 1
Department: Chemistry.

Student Name: Mostafa Shawky Eraky Mohamed.

Date and place of Birth: 1/3/1987, Shobrabass, Shebin El-Kom, Menoufia, EGYPT.

Date of joining the University: 2004/2005.

Date of Graduation: May 2008.

(1) Academic Year: 2004 / 2005				Term (1)	
No	Course	Code	Hours	Degree	Grade
1	Principles of Physical Chemistry	CH111	4	385	Excellent
2	Principles of Inorganic Chemistry	CH122	2	186	Excellent
3	Analytical Chemistry (1)	CH135	2	179	Excellent
4	Qualitative Chemistry	CH134	1	93	Excellent
5	Principles of Organic Chemistry	CH143	2	143	(Good)
6	Practical Organic Chemistry (1)	CH147	2	180	Excellent
7	General Mathematics (1)	M119	2.5	213	Excellent
8	Photography (1)	F141	2	178	Excellent
9	History of Science	F110	2	150	Very Good
10	Doga				
11					
Ter	m Rate: 87.54 %	Grade:	(Excel	lent)	
Acc	cumulated Rate: 87.54 %	Grade:	(Excel	lent)	

(2) Academic Year: 2004 / 20	005		Te	erm (2)
No	Course	Code	Hours	Degree	Grade
1	Thermodynamic (1)	CH211	2	170	Excellen
2	Non Transition Elements Chemistry	CH223	2	178	Excellen
3	Fundamentals of Physical Organic Chemistry	CH245	2	150	Very Good
4	Practical Analytical Chemistry (1)	CH126	2	197	Excellen
5	Analytical Chemistry (2)	CH234	2	175	Excellen
6	Aliphatic Chemistry	CH246	2	171	Excellen
7	Aromatic Chemistry	CH247	2	169	Very Good
8	Kinetics Chemistry	CH312	2	170	Excellen
9	English (1)	F111	1	65	(Good)
10	Environmental studies	F151	1	72	(Good)
11	Human Rights	U190	2	160	Very Good
Ter	m Rate: 84.28 %	Grade:	(Very	Good)	
Acc	cumulated Rate : 85.97 %	Grade:	(Excel	lent)	

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) Academic Year : 2004 / 2005	Term (Summer)				
Course	Code	Hours	Degree	Grade	
Mechanisms of inorganic Chemistry	CH423	Compulsive Excuse			
Solid state Chemistry	CH429	1	78	Very Good	
Statistics (1)	F161	1	75	Very Good	
General Mathematics (2)	M120	2.5	240	Excellent	
Term Rate: 87.33 % Grade: (Excellent)					
cumulated Rate : 86.12 %	Grade: (Excelle	nt)		
	Course Mechanisms of inorganic Chemistry Solid state Chemistry Statistics (1) General Mathematics (2) TRATE: 87.33 %	Course Code Mechanisms of inorganic Chemistry CH423 Solid state Chemistry CH429 Statistics (1) F161 General Mathematics (2) M120 TM Rate: 87.33 % Grade: (Course Code Hours Mechanisms of inorganic Chemistry CH423 C Solid state Chemistry CH429 1 Statistics (1) F161 1 General Mathematics (2) M120 2.5 Tm Rate: 87.33 % Grade: (Excelled)	Course Code Hours Degree Mechanisms of inorganic Chemistry CH423 Compulsive Solid state Chemistry CH429 1 78 Statistics (1) F161 1 75 General Mathematics (2) M120 2.5 240 Tm Rate: 87.33 % Grade: (Excellent)	

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(4) Academic Year: 2005 / 2006				Te	rm (1)
No	Course	Code	Hours	Degree	Grade
1	Chemistry of Carbohydrates	CH3510	2	165	Very Good
2	Alicyclic Chemistry	CH349	2	186	Excellent
3	Chemistry of transition Elements	CH323	1	87	Excellent
4	Stereochemistry	CH347	1	95	Excellent
5	Chromatography	CH4420	2	180	Excellent
6	Insecticides Chemistry	CH4628	2	200	Excellent
7	Introduction of Computer Programming	M139	3	243	Very Good
8	Islamic Studies (1)	F121	1	78	Very Good
9	Pericyclic Reactions	CH4422	1	99	Excellent
10	Practical Analytical Chemistry (2)	CH228	2	172	Excellent
Ter	Term Rate: 88.53 %		(Excel	lent)	
Acc	Accumulated Rate : 86.81 %		(Excel	lent)	

				21	
(5) Academic Year: 2005 / 2006			Te	rm (2)	
No	Course	Code	Hours	Degree	Grade
1	Thermodynamic (2)	CH212	2	183	Excellen
2	Instrumental Analysis (1)	CH335	2	176	Excellen
3	Properties of Matter	P111	3	295	Excellen
4	Practical Physics (1)	P189	3	265	Excellen
5	Chemistry of Enzyme and Metabolism	CH4523	2	195	Excellen
6	Chemistry of biomacromolecules	CH4413	1	96	Excellen
7	Practical Organic Chemistry (2)	CH249	2	170	Excellen
8	Egyptology (1)	F181	2	150	Very Good
9	1)000	U131	Withdrawal		
10	10000				
Ter	m Rate: 90 %	Grade:	(Excel	lent)	
Acc	cumulated Rate : 87.53 %	Grade:	(Excel	lent)	

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(6) Academic Year : 2006 / 2007				Tei	rm (1)
No	Course	Code	Hours	Degree	Grade
1	Practical Organic Chemistry (3)	CH312	4	371	Excellent
2	Electrochemistry (1)	CH311	1	88	Excellent
3	Radiation Nuclear Chemistry	CH411	1	94	Excellent
4	Chemistry of High Polymer	CH464	2	184	Excellent
5	Chemistry of Petroleum	CH4418	1	87	Excellent
6	Catalysis	CH413	1	83	Very Good
7	Photochemistry	CH4471	1	70	(Good)
	Chemistry of Natural Products	CH4410	1	96	Excellent
9	Instrumental analysis (2)	CH4311	2	180	Excellent
10	Mineralogy	G112	Com	pulsive E	xcuse
11	Islamic Studies (2)	F122	1	100	Excellent
12	Computer (1)	U131	Com	pulsive E	xcuse
Term Rate: 90.2 % Grade: (Excellent)					
Accumulated Rate: 87.97 % Grade: (Excellent)					

(7) Academic Year: 2006 / 2007				Te	rm (2)
No	Course	Code	Hours	Degree	Grade
1	Practical Analytical Chemistry (3)	CH3111	4	380	Excellent
2	Lubricants Chemistry	CH4632	1	86	Excellent
3	Quantum Chemistry	CH417	1	85	Excellent
4	Groups theory	CH4214	1	85	Excellent
5	Coordination Chemistry	CH324	1	90	Excellent
6	Organ Metallic Chemistry	CH4429	2	177	Excellent
7	Corrosion Chemistry	CH4119	1	93	Excellent
8	Spectroscopy	CH443	3	248	Very Good
9	Mechanisms of Inorganic Chemistry	CH4230	2	170	Excellent
10	Bioinorganic Chemistry	CH4231	2	200	Excellent
11	Computer (1)	U131	2	121	Pass
12	Doag				
Term Rate: 89.67 %		Grade:	(Excel	lent)	
Acc	cumulated Rate : 88.25 %	Grade:	(Excel	lent)	

(8) Academic Year : 2006 / 2007	Term (Summer)				
No	Course	Code	Hours	Degree	Grade	
1	Organic Reaction Mechanism (1)	CH346	Compulsive Excuse			
2	Electromagnetic	P144	3	284	Excellent	
3	English (2)	F112	1	93	Excellent	
Ter	m Rate: 94.25 %	Grade: (Excelle	nt)		
Acc	umulated Rate: 88.46 % Grade: (Excellent)					
1)	74 A	-				

(9) Academic Year: 2007 / 2	2008 Tei			rm (1)
No	Course	Code	Hours	Degree	Grade
1	Principles of Applied Organic Chemistry	CH3613	2	186	Excellent
2	Textile and Dye Chemistry	CH468	1	94	Excellent
3	Chromatographic applications for organic compounds	CH4633	2	167	Very Good
4	Ceramics	CH4627	2	186	Excellent
5	Heterocyclic Chemistry	CH348	3	268	Excellent
6	Mineralogy	G112	3	278	Excellent
7	Detergents Chemistry	CH4626	1	82	Very Good
8	Practical organic Chemistry (4)	CH446	4	344	Excellent
9	Computer (2)	U132	2	143	(Good)
Ter	m Rate: 89.17 %	Grade:	(Excel	lent)	
Accumulated Rate : 88.56 %		Grade:	(Excel	lent)	

(10) Academic Year : 2007 / 2008				Term (2)	
No	Course	Code	Hours	Degree	Grade
1	Organic reaction mechanism (1)	CH346	2	192	Excellent
2	Hormones & vitamins Chemistry	CH4524	1	95	Excellent
3	Practical Analytical Chemistry (4)	CH415	4	351	Excellent
4	Organic reaction mechanism (2)	CH442	2	189	Excellent
5	Electrochemistry (2)	CH4116	2	174	Excellent
6	Research and Essay	CH000	2	163	Very Good
7	Computer (3)	U230	2	119	Pass
8	Doag				
9					
10					
Term Rate: 89.54 % Grade: (Excellent)					

Accumulated Rate: 88.65 % Grade: (Excellent With Honor Rank)

Faculty Requests

Total Degree of the Student: 12765/14400 (Only Twelve thousand, Seven hundred and Sixty-Five degree).

With Percentage: 88.65 %

General Grade: (Excellent With Honor Rank)

The Faculty Certifies that Mr: Mostafa Shawky Eraky Mohamed.

has got the degree of B.Sc, : In Chemistry In May 2008

With Percentage: 88.65 %

General Grade: (Excellent With Honor Rank)

This Certificate has been issued upon his request to be submitted to

whom it may concern.

Student Affairs

Daa osama

Abou Elmagd

Vice Dean

Dean

Chemistry Department

Physics Department

Geology Department

Mathematics Department

Botany Department

Zoology Department

Zoology Department

Notes: -

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- 1. The Faculty works with the credit hour system.
- 2. Term Rate = sum degrees / no. of hours.
- 3. Accumulated Rate = sum Terms rate / no. of terms hours.
- 4. Scientific observer means that the student holds a Accumulated Rate of less than 60 %.

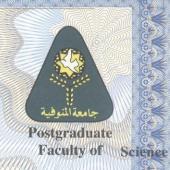




CERTIFICATE

To whome it may concern

05217



VIZ

This is to certify that Mostafa Shawky Eraky Mohamed

born on

1/3/1987

, in

Shobrabas, Shben El-kom, Menoufia

was awarded

M.Sc. " Physical Chemistry "

Thesis Title

"A Study on Synthesis and Characterization of Some (I-IV-VI) Groups Compounds for Solar Cells Energy Application ".

By the Faculty Council on

16/2/2016

Approved by the University Council on

24/2/2016

This certificate has been issued upon his/her request.

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marma AZZa Mervatt

Vice Dean

Prof Dr. M. Tawfiek Shaaban

Dear

Prof. Dr. AHIsmail

Date:

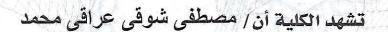
21/4/2016











المولود في: شبر اباص/ مركز شبين الكوم/ المنوفية بتاريخ: ١٩٨٧/٣/١

قد حصل على: درجة الدكتوراه/ دكتور الفلسفة في: العلــوم

انتخصص ؛ (الكيمياء الفيزيائية) .

في موضوع:

(معالجة و توصيف مركبات الكالكوجينيد المختلفة للتطبيقات الكهروكيميانية الضوئية).

تاريخ موافقة مجلس الكلية: ٢٠٢٠/١٢/٢٢

تاريخ إعتماد مجلس الجامعة : ٢٠٢٠/١٢/٢٩

وقد تحررت هذه الشهادة بناء على طلبه لتقديمها لمن يهمه الأمر،،،

قائم بعمل رئيس القسم من المستور الإدارة المناس القسم من المناس القسم من المناس المناس القسم المناس المناس

المختص بالدراسات العليا

165C

وكيل الكلية للدراسات العليا (١٥٠١ مجلي زاكي مطر)

۱۹۱۱ میتای راکي مطر)





MINOUFIYA UNIVERSITY

CERTIFICATE

To whom it may concern

008304



This is to certify that Mostafa Shawky Eraky Mohamed.

born in Shobrabas, Shbien El-koom, El Menoufia

on 1/3

1/3/1987.

be awarded the doctorate /philosophy doctor degree in:

Science.

field: Chemistry.

grade:

///////percentage:

///////////////////////// rate:

HHHH

Subject: "Processing and characterization of different chalcogenide compounds for photo-electrochemical applications."

By the Faculty Council on

22/12/2020

Approved by the University Council on

29/12/2020

This certificate has been issued upon his/her request.

RAW

Azze
Vice Dean

18/1/2021

Prof . Dr. Maguy Zaky Mattar

Date: 1917/1/1021

Dean / 2=2

Prof J. Adel Abdel-Hady Nassar

