FACULTY FULL NAME Dr. Abir Said Abdel-Naby

POSITION

Professor

Personal Data

Nationality | Egyptian

Date of Birth | 12-2- 1964

Department | Chemistry

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Office Phone No. 37237

Language Proficiency

Language	Read	Write	Speak
Arabic	Fluent	Fluent	Fluent
English	Fluent	Fluent	Fluent
Others (French)	Fluent	Fluent	Fluent

Academic Qualifications (Beginning with the most recent)

Date	Academic Degree	Place of Issue	Address
1996	Ph.D	Faculty of Science Cairo University And College of William and Mary Virginia USA.	Cairo -Egypt
1990	MSc.	Faculty of science Cairo University	Cairo -Egypt
1986	BSc.	Faculty of science Cairo University	Cairo -Egypt

PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions)

PhD	Studies on the thermal stabilization of PVC by chemical modification
Master	Studies on the use of cyanoguanidine and its complexes as thermal stabilizers of PVC
Fellowship	One year Postdoctoral fellowship supported by UNESCO in Tokyo Institute of technology. Japan (10/1999-9/2000).

Professional Record: (Beginning with the most recent)

Job Rank	Place and Address of Work			Date
Demonstrator	Faculty of Science , ,	Cairo University		1986
Assistant Lecturer of polymer Chemistry	Faculty of Science ,	Cairo University		1990
Lecturer of Organic (polymer) Chemistry	Faculty of Science ,	Cairo University		1996
Associate professor of Organic (Polymer) Chemistry	Faculty of Science ,	Cairo University		2003
Associate professor of Organic (Polymer) Chemistry	College of Science	Imam Abdulrahman Bin Faizal University		2005
Professor of Organic (Polymer) Chemistry	College of science	Imam Abdulrahman Bin Faizal University		2016 till now

Administrative Positions Held: (Beginning with the most recent)

Administrative Position	Office	Date
Head of the research units	College of girls	2011-2012
Head of the water treatment unit at BASRC	BASRC G24	2020 till now

Scientific Achievements

Published Refereed Scientific Researches
(In Chronological Order Beginning with the Most Recent)

1. #	Name of Investigator(s)	Research Title	Publisher and Date of Publication
2.	**Abir. S. Abdel-Naby & Azza A. Al-Ghamdi**	Effect of crystallinity on the thermal and photostabilization of PVC/poly (AN-DAA) blend	*International Journal of Polymer Analysis and Characterization Vol.25 (2020) 8-17*
3.	**Asma M. ELsharif , Azza A. Al-Ghamdi and Abir S. Abdel-Naby**	Modification of poly (vinyl chloride) by N-phenyl itaconimides for the improvement of its thermal stability	*Journal of chemistry, vol. 2019 (2019) 1-8*
4.	**Azza A. Al-Ghamdi, Salha N. Al-Harthi, Asma M. EL-Sharif, Abir S. Abdel-Naby**	Cyclocopolymerization of N,N-Diallylammonium and	*Arabian Journal for Science and Engineering Vol.*

		N,N-Diallylguanidinium Acetate with Acrylonitrile Characterization, Thermal and Morphological Properties	*44, Issue 7(2019) 6303–6311*
5.	**Azza Al-Ghamdi & Abir Abdel-Naby**	Biodegradable cellulose-based materials for the use in food packaging	*International journal of chemical and materials Engineering vol. 12, No 4, (2018) 195*
6.	**Azza Al-Ghamdi & Abir Abdel-Naby**	Graft copolymerization of cellulose acetate with nitro-n-amino phenyl maleimides	*International journal of chemical and materials Engineering vol: 12, No 8, (2018) 416*
7.	**Mona Al-Dhafeer & Abir Abdel-Naby**	Use of ultrasonic Technique for the Adjustment of Biodegradable Cellulose acetate Blends for fibre applications	*Asian journal of Chemistry (2017) 29*
8.	**Abir S. Abdel-Naby** & Azza A. Al-Ghamdi	Chemical modification of cellulose acetate by Diallylamine	*Int. J. Curr. Microbiol. App. Sci* (2014) 3 (6) 10-24.
9.	**Abir S. Abdel-Naby** & Azza A. Al-Ghamdi	Chemical modification of cellulose acetate by N-(phenyl amino) maleimides: Characterization and properties	International journal of biological macromolecules Vol. 68 (2014) 21-27 **ELSEVIER**
10.	Abir S. Abdel-Naby & Azza A. Al-Ghamdi	. Poly(vinyl chloride) blend with biodegradable cellulose acetate in presence of N-(phenyl amino) maleimides	International journal of biological macromolecules Vol. 70 (2014)124-130 **ELSEVIER**
11.	**Abir S. Abdel-Naby and** Salha N. Al-Harthi	Dyeability and mechanical properties of acrylonitrile-diallylamine salts copolymers	American Journal of Applied Sciences Vol. 10 (5) (2013) 525 Science Publication
12.	**Abir S. Abdel-Naby*** and Sama A. .13 Aboubshait	Cellulose acetate blends with Acrylonitrile/N-phenyl maleimide copolymers Morphological and Thermal Properties	J. Thermal Anal Calorimetry Vol. 114, (2013) 1279 Springer
14.	Abir S. Abdel-Naby	Ultrasound assisted Copolymerization of Acrylonitrile with N-aminophenyl maleimides and N- amino phenyl 2, 3 Dimethyl maleimides	Ultrasonics Sonochemistry Vol. 19, (2012) 1180 **ELSEVIER**
15.	**Abir S. Abdel-Naby**	Improvement of the thermal, Photo and Mechanical Properties of	American J. Appl. Sci. Vol. 8(7), (2011) 675. Science publication

		Poly (vinyl chloride) in presence of Poly (Glycidyl methacrylate)	
16.	**Abir S. Abdel-Naby**	Copolymerization of Acrylonitrile with N-(Substituted phenyl) itaconimide	J. Appl. Polym Sci. Vol. 121 (2011) 169. John Wiley
17.	**Abir S. Abdel-Naby**, Refaa F. Al-Ghamdi, Azza A. Al-Ghamdi	Effect of Cyanoguanidine-Metal and Urea-Metal Complexes on the Thermal Degradation of Poly (vinyl chloride)	J. Vinyl & Addit. Technol. Vol.16 (2010) 15. John Wiley
18.	**Abir Abdel-Naby** and Abeer O. Al Dossary .	Stabilization of poly (vinyl chloride) against photo-degradation using dienophilic compounds	J. Appl. Polym Sci. vol. 114 (2009) 3218 John Wiley
19.	. **Abir S. Abdel-Naby** and Abeer O. Al Dossary	Use of N-aryl amino maleimide to improve the thermal properties of poly (vinyl chloride) through chemical modification and graft copolymerization.	J. vinyl Addit. Technol. Vol. 14 (2008) 167. John Wiley
20.	**Abir S. Abdel-Naby** and Abeer O. Al Dossary	Inhibition of the Thermal Degradation of Rigid Poly (vinyl chloride) by Dienophilic Compounds	J. vinyl Addit. Technol. Vol.14 (2008) 175. John Wiley
21.	Magdy W. Sabaa, Emad H. Oraby, **Abir S. Abdel Naby** and Riham R. Mohamed	. N-phenyl-3-substituted-5-pyrazolone derivatives for rigid poly(vinyl chloride) against photo-degradation	J. Appl. Polym Sci. vol. 101 (2006)1543 John Wiley
22.	Magdy W. Sabaa, Emad H. Oraby, **Abir S. Abdel Naby** and Riham R. Mohamed	Organic thermal stabilizers for rigid poly (vinyl chloride) Part XII: N-phenyl-3-substituted-5-pyrazolone derivatives.	Polym. Degrad. Stab. Vol. 91 (2006) 911. ELSEVIER
23.	Magdy W. Sabaa, Emad H. Oraby, **Abir S. Abdel Naby** and Riham R. Mohamed	Organic thermal stabilizers or rigid poly(vinyl chloride). Part XI: Anthraquinone derivatives.	Polym. Degrad. Stab. Vol. 91 (2006) 242. ELSEVIER
24.	Magdy W. Sabaa, Emad H. Oraby, **Abir S. Abdel Naby** and Riham R. Mohamed	Anthraquinone derivatives as organic stabilizers for rigid poly (vinyl chloride) against photo-degradation	European polymer Journal Vol. 41 (2005)2130 ELSEVIER
25.	**Abir S. Abdel-Naby** and Manal M. El-Hefnawy	Improvement of the thermal and mechanical properties of poly(vinyl chloride) in presence of poly(ethylene succinate).	Polymer Testing vol. 22 (2003) 25 ELSEVIER

26.	Abir S. Abdel-Naby and Samir M. Nouh	Stabilization of poly (vinyl chloride) against laser radiation with ethyl-N-phenyl maleimide-4-carboxylate	Polym.Degrad.Stab. vol.76 (2002) 419 ELSEVIER
27.	**Abir S. Abdel-Naby** and Samir M. Nouh	. Structure and optical Investigation of the effect of laser radiation in stabilized poly (vinyl chloride)	Rad.effect and defects in solids vol. 157 (2002) 265 John Wiley
28.	**Abir S. Abdel-Naby**	Gamma-radiation-induced graft copolymerization of N- [4-(N-substituted amino carbonyl) phenyl] maleimide onto poly(vinyl chloride) films	J. vinyl Addit. Technol. Vol. 7 (2001) 244 John Wiley
29.	**Abir S. Abdel-Naby** and Samir M. Nouh	Micro sphere synthesis by distribution copolymerization using polyisoprene macromonomers in non-aqueous media	Journal of material science letters vol. 20 (2001) 1675 John Wiley
30.	**Abir S. Abdel-Naby** and Salah M. Mahrous	Space charge limited currents and trap distribution in PVC stabilized with lead stearate.	Inter J polymeric matter Vol.46 (2000) 571
31.	**Abir S. Abdel-Naby** and Samir M. Nouh American J. of .i solid Vol. 22 (2000) 331-340	Temperature, frequency and concentration dependence of the dielectric properties of poly (vinyl chloride) in the presence of 5-pyrimidine carbonitrile (1,2,3,4- Tetrahydro-4-6-phenyl-2-thioxo	American J. of solid Vol. 22 (2000) 331-340
32.	**Abir S. Abdel-Naby**	Stabilization of rigid poly(vinyl chloride) by 5,6,7,8-Tetrahydro-2-mercapto-4-(p-methoxyphenyl)-3-quinolinecarbonitrile	J.Vinyl Addit.Technol. vol.5 (1999) 159-164. John Wiley
33.	Magdy W. Sabaa, **Abir S. Abdel-Naby**	Cyanoethanyl-4-acryloyl -1 thiosemicarbazide and its complexes as thermal stabilizers for rigid poly(vinyl chloride)	Polym.Degrad.Stab vol. 64, 185 ELSEVIER
34.	Abir S. Abdel-Naby and Ayman S. Youssef	Inhibition of the degradation of poly (vinyl chloride) by its modification with 5-pyrimidine carbonitrile (1,2,3,4-Tetrahydro-4-6-phenyl-2-thioxo.	Polymer inter.vol 46 (1998) 33 ELSEVIER
35.	Ahmady A.Yassin, Magdy W. Sabaa, **Abir S. Abdel-Naby**.	Cyanoguanidine and its complexes as thermal stabilizers for rigid poly (vinyl coloride)	Polym.Degrad.Stab ELSEVIER vol. 31 (1991) 189-202

Refereed Scientific Research Papers Accepted for Publication

#	Name of Investigator(s)	Research Title	Journal	Acceptance Date

Scientific Research Papers Presented to Refereed Specialized Scientific Conferences

#	Name of Investigator(s)	Research Title	Conference and Publication Date

Completed Research Projects

#	Name of Investigator(s) (Supported by)	Research Title	Report Date
1	**Abir Abdel-Naby** Sammar Abou-beshait Haya Abou Beshait Suppored by University of Dammam	**Studies of the Blend Properties of Acrylonitile Copolymers with Cellulose Acetate**	2012
2	Abir Abdel-Naby Suppored by University of Dammam	Stabilization of poly(vinyl chloride) against photo and thermal degradation	2013
3	Mona Al-Dhafeer **Abir Abdel-Naby** Supported by University of Dammam	Use of ultrasonic Technique for the Adjustment of Biodegradable Cellulose acetate Blends for fibre applications	2016
4	Azza Al-Ghamdy Abir Abdel-Naby Supported by University of Dammam	Improvement of thermal properties of PVC through chemical blend using Microwave and ultrasonic techniques.	2016
5	Abir Abdel-Naby et.al.	Fine chemistry	2019
6	Abir Abdel-naby et.al.	Water treatment (institutional fund)	IF-2020

Current Research

#	Research Title	Name of Investigator(s)

Contribution to Scientific Conferences and Symposia

#	Conference Title	Place and Date of the Conference	Extent of Contribution
1	20th international conference on synthetic polymer chemistry and chemical Engineering.	London, UK (April 2017).	3 days
2	Environment and development in gulf region	University of Dammam	3 days
3	The 4th Saudi international nanotechnology conference (SINC 2016)	King Fahd university	2 days
4	ACS Fall meeting (Chicago) 2001.	Chicago USA	One week

Membership of Scientific and Professional Societies and Organizations

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	Association name	Affiliation of the association	Association place
	1. The American Chemical Society	USA	Member
	The Syndicate for Scientific professions.	Egypt	Member
	The Egyptian Society of Polymer Science and Technology,	Cairo, Egypt	Member
	The Arab Society of Material Science,	Alexandria, Egypt	Member
	Saudi chemical society	Dammam, Saudi Arabia	Member

Teaching Activities

Undergraduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
	Polymer Chemistry	CHEM 458N	15 lec
	Organometallic chemistry	CHEM 475N	15 lec

	Natural Products	CHEM 457N	15 lec
	General Chemistry	CHEM 221	15 lab

Brief Description of Undergraduate Courses Taught: (Course Title – Code: Description)

1	**Course Description** **Polymer** The course aims to give the student the theoretical bases of macromolecular compounds. Also it gives a direct scope on synthesis of polymers and reactions including several techniques depending on the method of polymerization. Various reaction mechanisms of polymerization should be covered e.g. free radical, ionic, coordination and stepwise mechanisms. The course also aims to give students the experience to use polymers in the manufacture of fibers, rubber and plastics.
2	***Course Description*** Organometallic Chemistry The course aims to give the student the theoretical bases performing the Ionic character of organometallic compounds . Also it gives a direct scope on organometallic synthesis and reactions including several techniques depending on the nature of the metal. Various organometallic reactions should be covered e.g. insersion and deinsersion, self condensation oxidative addition and reductive elimination reactions, Grignard reactions and photochemical reactions, use of organometalic in polymerization reactions and formation of isotactic polymers. The course aims also to give students the experience to use organometallic compounds in the synthesis of some medical drugs.
3.	Natural products The course aims to give the student the theoretical bases concerning

	▪ Classes of natural products. ▪ Structure determination of organic compounds and synthesis of each natural product to confirm the structure determination. ▪ Also it gives a direct scope on various types of extraction , distillation and purification techniques.

Postgraduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
	Advanced Organic Spectroscopy	CHEM 521	15 lec
	Advanced Polymer Chemistry	CHEM 523	15 lec
	Physical Organic (1)	Chem 514	15 lec
	Physical Organic (2)	Chem 519	15 lec
	Natural Products	Chem 515	15 lec

Brief Description of Postgraduate Courses Taught: (Course Title – Code: Description)

1	Advanced Spectroscopy Electromagnetic radiation: Wave and particle properties – interaction between wave and matter - types of electromagnetic radiation. UV-Vis spectroscopy: Quantitative analysis – Lambert-Beer law - calculating λmax of various chromophores – fluorescence and phosphorescence – CD and ORD curves and stereochemistry determination – ESR spectra. IR spectroscopy: Theory – Sample preparation – Instrumentation – FT technology – molecular vibrations – IR active vibrations – frequency calculation - interpreting spectra. NMR spectroscopy: 1H NMR – chemical shift – coupling constant - first and second order splitting - chemical shift equivalence (homotopic, enantiotopic and diastereotopic protons) – Shift reagents - Magnetic equivalence - Karplus equation - Selective excitation methods – Nuclear overhauser effect - Chemical exchange. Mass spectroscopy: Determination of molecular formula and molecular weight – fragmentations and rearrangements – GC-MS and LC-
2	**Advanced Polymer Chemistry** Introduction of polymer chemistry and their importance and applications in our daily life. General properties of polymers and macromolecules. Classification of polymers according to Origin, chemical classification, according to nature of preparation , to shape of polymeric chain, to physico-mechanical properties. Different reaction mechanisms of polymerization reaction. Addition polymerization, free radical ,cationic and anionic. Condensation polymerization reaction mechanism. Comparison between condensation and addition polymerization. Competitive reactions. Chain-transfer to solvent, monomer, polymer, initiator. Factors affecting the rate and average molecular weight of addition polymerization. Copolymerization. Effect of temperature on polymers, resins. Coordination, polymerization.

	Practical methods of polymer preparation. Plastic, fibre and rubber technologies.
3	*Physical Organic(1)* Intermolecular Radical Additions to Alkynes: Cascade-Type Radical Cyclizations Radical Cation Fragmentation Reactions in Organic Synthesis Selectivity in Radical Cation Cycloadditions. The Stability of Carbon-Centered Radicals Intermediates: Carbonium ions, Carbanions, Free radical. Methods to Identify them. Free energy relationship. Electrophilic and nucleophilic attack. Substitution reactions, Elimination reactions, Rearangement. Free radical.
4	**Physical Organic Chemistry (2)** Positive carbonium ion: Stability of ionic carbocations, order of common and noncommon carbocations. Negative carbanion: Negative enol ion, formation, their reactions with Electrophiles, Condensation reaction, stereo rearrangements of enols. Micheal addition, Robinson addition Reactions of enols formed from halocarbonyl derivatives, acetaldehyde, lithium and magnesium reagents, Sulfur ion stabilized by the influence of the neighbor carbon atom, organo copper reagents, organo iron reagents.
5	

Course Coordination

#	Course Title and Code	Coordination	Co-coordination	Undergrad.	Postgrad.	From	to
	Polymer Chemistry Chem 458	√		√		2012	2016
	Polymer Chemistry Chem 458		√	√		2017	
	Organometallic chemistry Chem 475	√		√		2012	2016
	Organometallic chemistry Chem 475		√	√		2015	
	Research project Chem 474	√		√		2012	2017
	Physical Organic 1 Chem 514	√			√	2012	2016
	Physical Organic 2 Chem 519	√			√	2012	2016
	Natural Products Chem 515	√			√	2015	
	Advanced Organic spectroscopy Chem 521	√			√	2017	
	Advanced polymer Chemistry Chem 523	√			√	2017	

Guest/Invited Lectures for Undergraduate Students

#	Activity/Course Title and Code	Subject	College and University or Program	Date

Student Academic Supervision and Mentoring

#	Level	Number of Students	From	to
	Postgraduate (master program)	3	2014	2016
	Postgraduate (master program)	3	2010	2014
	undergraduate	28	2016	2017
	undergraduate	20	2010	2014
	undergraduate	18	2014	2016

Supervision of Master and/or PhD Thesis

#	Degree Type	Title	Institution	Date
	Ph.D	**Studies on thermal stabilization of PVC against thermal and photo degradation**	**Faculty of Science Cairo University**	2006
	Ph.D	**Studies on the stabilization of PVC by Chemical modification using environmentally organic stabilizers**	**College of science for Girls University of Dammam**	2009
	Ph.D	**Studies on the use of biodegradable cellulose acetate in plastic and fiber applications**	**College of science for Girls University of Dammam**	2014
	Master	**Studies on the improvement of the thermal stability PAN and PVC through metal complexation**	**College of science for Girls University of Dammam**	2010
	Master	**Studies on the improvement of PAN properties through copolymerization**	**College of science for Girls University of Dammam**	2012
	Master	**Studies on the inhibition of thermal degradation of PVC by various techniques**	**College of science for Girls University of Dammam**	2013
	Master	**Studies on the Graft copolymerization onto starch**	**College of science Imam Abdulrahman Bin Faizal University**	2018
	Master	**Studies on chemical modification of biolopolymers**	**College of science Imam Abdulrahman Bin Faizal University**	2020

Ongoing Research Supervision

#	Degree Type	Title	Institution	Date
1	PhD	Chemical modification of originally natural polymers	College of science Imam Abdulrahman Bin Faizal University	

Administrative Responsibilities, Committee and Community Service

(Beginning with the most recent)

Administrative Responsibilities

#	From	To	Position	Organization
	2011	2012	Head of research units	College of Science
	2020	now	Head of water treatment unit	BASRC

Committee Membership

#	From	To	Position	Organization
	2010	now	Vice -head	Postgraduate committee
	2010	now	Vice head	Master development committee
	2016	now	Organic coordinator	BSC. development committee
	2016	2017	Vice head	Electronic learning committee
	2010	now	member	NCAAA committee

Scientific Consultations

#	From	To	Institute	Full-time or Part-time
			Reviewer at scientific journals at ELSEVIER, SPRIGER, John Wiley, Science of publication	Any available time

Volunteer Work

#	From	To	Type of Volunteer	Organization
	2014	now	Training graduate students as research assistants	College of Science Al-Rayan University of Dammam

Personal Key Competencies and Skills: (Computer, Information technology, technical, etc.)

1	Information technology
2	computer

Last Update

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