



حاصلة على شهادة الاعتماد من الهيئة القومية
لضمان جودة التعليم والاعتماد في 2012|7|12م



Research Lab Sheet

Lab Name	Prof. Dr. Abdel-Mawgoud M. Abdel-Mawgoud Research Lab of Inorganic Chemistry
Academic Year	2021 - 2022

Basic Information

Department	Chemistry Department (Inorganic Chemistry)
Location	Building 1 - Second floor
Total area (m²)	
Head of the Lab	Prof. Dr. Abdel-Mawgoud M. Abdel-Mawgoud
Establishment date	

Lab Members

No. of Staff	Prof.	Ass. Prof.	Lect.	Ass. Lect. & Demonstr.	Technicians
	1		1	1	



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Staff members

No.	Name	Scientific degree	E-mail	Specializations	Website
1	Prof. Dr. Abdel-Mawgoud M. Abdel-Mawgoud	Prof.	abdelmawgoud.abdelmawgoud@science.sohag.edu.eg	Inorganic Chemistry	https://staffsites.sohag-univ.edu.eg/abdelmawgoud.abdelmawgoud
2	Prof. Dr. Mohamed Ismael	Prof.	usa_moh2000@yahoo.com	Inorganic Chemistry	https://staffsites.sohag-univ.edu.eg/m-ismael
3	Dr. Aly Abdou	Lecturer	aly_abdou@yahoo.com	Inorganic Chemistry	https://staffsites.sohag-univ.edu.eg/aly_abdou

Ass. Lecturers & Demonstrators

No.	Name	Scientific degree	E-mail	Specializations	Website
1	Mohamed Abdel-Hammed	Demonstrator	mohamed2018521500879@gmail.com	Inorganic Chemistry	



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Theses produced by the Lab

1. M. Sc Thesis

No.	Title		Approval date
1	Electrodeposited Superparamagnetic iron oxides nanoparticles and their nanoconsites for water treatment application		2017
	M. Sc. Student:	Rehab Abd El-Rahman	
	Supervision Committee:	Prof. Dr. Abdel-Mawgoud M. Abdel-Mawgoud Prof. Dr. Nagwa Thabat Abo El-Maali Dr. Mahmoud Elrouby	
2	Design and Synthesis of New Transition Metal Complexes Based on Imidazole Ligands for Environmental Applications		2017
	M. Sc. Student:	Aly Abdou	
	Supervision Committee:	Prof. Dr. Abdel-Mawgoud M. Abdel-Mawgoud Prof. Dr. Mohamed Ismael	
3.	Synthesis, characterization and biological investigation of new hydrazones and azomethines complexes based on non-steroidal anti-inflammatory drugs		In processing
	M. Sc. Student:	Mohamed Abdel-Hammed	
	Supervision Committee:	Prof. Dr. Abdel-Mawgoud M. Abdel-Mawgoud Prof. Dr. Leila H. Abdel Rahman Prof. Dr. Shaaban.K.Mohamed	



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2. Ph. D. Thesis

	Title	Approval date
1	Design and Synthesis of New Transition Metal Complexes for Biological and Catalytic Applications	2020
	Ph. D. Student: Aly Abdou	
	Supervision Committee: Prof. Dr. Abdel-Mawgoud M. Abdel-Mawgoud Prof. Dr. Mostafa K. Rabia Prof. Dr. Mohamed Ismael	



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Articles produced by the Lab

Year 2022	
1.	Aly Abdou , Abdel-Mawgoud M. Abdel-Mawgoud , Synthesis, Structural elucidation, DFT investigation of new mononuclear Fe(III), Ni(II), and Cu(II) mixed-ligand complexes; Biological and Catalase mimicking activity exploration, Applied organometallic Chemistry, 2022 (doi.org/10.1002/aoc.6600)
2.	Aly Abdou , Omran A. Omran, Ayman Nafady, Igor S. Antipin, Structural, spectroscopic, FMOs, and non-linear optical properties exploration of three thiacaix(4)arenes derivatives, Arabian Journal of Chemistry, Volume 15, Issue 3, 2022 , 103656 (doi.org/10.1016/j.arabjc.2021.103656)
Year 2021	
3.	Mohamed Ismael , Abdel-Mawgoud M. Abdel-Mawgoud , Mostafa K. Rabia, Aly Abdou , Ni(II) mixed-ligand chelates based on 2-hydroxy-1-naphthaldehyde as antimicrobial agents: Synthesis, characterization, and molecular modeling, Journal of Molecular Liquids, Volume 330, 2021 , 115611 (doi.org/10.1016/j.molliq.2021.115611)
4.	Mohamed Ismael , Abdel-Mawgoud M. Abdel-Mawgoud , Mostafa K. Rabia, Aly Abdou , Synthesis, characterization, molecular modeling and preliminary biochemical evaluation of new copper (II) mixed-ligand complexes, Journal of Molecular Structure, Volume 1227, 2021 , 129695 (doi.org/10.1016/j.molstruc.2020.129695)
Year 2020	
5.	Mohamed Ismael , Abdel-Mawgoud M. Abdel-Mawgoud , Mostafa K. Rabia, Aly Abdou , Design and synthesis of three Fe(III) mixed-ligand complexes: Exploration of their biological and phenoxazinone synthase-like activities, Inorganica Chimica Acta, Volume 505, 2020 , 119443 (doi.org/10.1016/j.ica.2020.119443)
Year 2018	
6.	Mohamed Ismael , Aly Abdou , A. M. Abdel-Mawgoud , Synthesis, Characterization, Modeling, and Antimicrobial Activity of FeIII, CoII, NiII, CuII, and ZnII Complexes Based on Tri-substituted Imidazole Ligand, Z. Anorg. Allg.



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	Chem., Volume 644, 2019 , 1203-1214 (doi.org/10.1002/zaac.201800230)
	Year 2017
7.	A. M. Abdel-Mawgoud , Mohamed Ismael , Aly Abdou , Synthesis, Characterization, Antimicrobial Evaluation and DFT Calculations of Fe(III), Ni(II) and Cu(II) Complexes of Tridentate ONO Donor Ligand, Journal of Pharmaceutical and Applied Chemistry, Volume 3 (2), 2017 ,17-24 (doi.org/10.21608/jpac.2017.202347)
8.	Mahmoud Elrouby, A.M. Abdel-Mawgoud , Rehab Abd El-Rahman, Synthesis of iron oxides nanoparticles with very high saturation magnetization form TEA-Fe(III) complex via electrochemical deposition for supercapacitor applications, Journal of Molecular Structure, Volume 1147 (2017) 84-95 (doi.org/10.1016/j.molstruc.2017.06.092)
	Year 2004
9.	A. M. Abdel-Mawgoud , Hussein M. El-Sagher, Mostafa K. M. Rabia, Synthesis, Characterization, and Electrochemical Adsorption Study on Mercury Electrode of New Ternary Cu(II) Complexes of N-Naphthylideneamino Acids with Imidazoles, Synthesis and Reactivity in Inorganic and Metal-Organic Chemistry, 34:10, 2004 , 1675-1688 (doi.org/10.1081/SIM-200030135)
	Year 1999
10.	N. M. Rageh, A. M. Abdel-Mawgoud , H. M. Mostafa, Electronic Spectra, Solvatochromic Behaviour, and Acidity Constants of Some New Azocoumarin Derivatives, Chemical Papers-Slovak Academy Of Sciences, 53 (2) (1999) 107–113 ()
	Year 1998
11.	Refat Abdel-Hamid, Hussein M. El-Sagher, A. M. Abdel-Mawgoud , Aywan Nafady, Electrochemistry of the bis(1,4,7-triazacyclodecane) cobalt(III) complex and its role in the catalytic reduction of hydrogen, Polyhedron, Volume 17, Issues 25–26, 1998 , 4535-4541 (doi.org/10.1016/S0277-5387(98)00260-5)
12.	A. M. Abdel-Mawgoud , Ternary Ni (II) and Cu (II) complexes of salicylideneamino acids with imidazoles, Synthesis and reactivity in inorganic and metal-organic chemistry, Volume 28 (4), (1998) 555-570 (doi.org/10.1080/00945719809351665)
13.	A. M. Abdel-Mawgoud , HM El-Sagher, Synthesis & characterization and electrochemical investigation of Co (II)-salicylideneamino acid-imidazole ternary complexes, Bulletin of the Polish Academy of Sciences. Chemistry,



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	Volume 46 (2), (1998), 167-177
	Year 1997
14.	A. M. Abdel-Mawgoud , M. M Hamed, H. M Mostafa, Electronic spectral behaviour of some new hydroxy azocoumarin derivatives, <i>AFINIDAD</i> , Volume 54 (472), (1997) 483-488





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Lab instruments

No.	Device	quantity	Quality			
			Good	Poor	Need maintenance	malfunction
1	Hot Plate with stirrer	2	√			
2	Oven	1	√			
3	Desiccator	1	√			
4	Digital balance	1	√			
5	pH meter	1	√			
6						
7						
8						

Instruments Description

Device name	Device image	Description /use
Hot Plate with stirrer		<p>Hot plate with stirrer is a device used:</p> <ul style="list-style-type: none"> • For heating samples in glass beakers, flasks, vials, bottles and other vessels. • For refluxing with stirring the organic reactions. • To heat samples before chemical analysis.
Oven		<p>Oven is a device used for:</p> <ul style="list-style-type: none"> • Drying organic samples. • Drying all types of glass.

<p>Desiccator</p>		<p>Desiccator is a glass device used for preservation organic samples dried.</p>
<p>Digital balance</p>		<p>A digital balance is used to weigh different chemical substances that used during different chemical reactions.</p>

pH meter



The pH meter is used to measure the pH values of different chemical solutions that used during different chemical reactions.



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Evaluate the fulfillment of lab to appropriateness of areas, building installations, facilities and human resources standards

Areas of assessment		Indicators	Yes	Somewhat	No
Floor area and capacity	1	Adequacy of the total capacity of the lab for the number of researcher (1).		√	
Windows and doors	2	Availability of windows for adequate ventilations.		√	
	3	Ease of use of windows.		√	
	4	There are two exits (doors) at least (2).			√
	5	There are signs to locate directions of emergency exits		√	
Equipment	6	Appropriate temperature during the lectures (3).		√	
	7	Availability of good ventilation (4).		√	
	8	The existence of adequate lighting (4).		√	
	9	Lab is connected to the Internet	√		
	10	The existence of directions inside the Lab showing entrances and emergency exits.		√	
Security and Safety	11	Existence of firefighting equipment near the hall (5).		√	
	12	Cleanliness of the room.	√		



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- 1- Minimum area: 1m² for each person.
2. Doors characteristics: Consists of one movable piece - opening to the inside.
3. The appropriate temperature is 18-25 °C in winter and 28°C in summer due to air-condition use.
4. Providing adequate lighting and good ventilation: windows area 10-15% of the floor area
5. Security and safety requirements: evacuation plan / evacuation responsible person/ fire distinguishers / bucket of sand / water source / good condition extinguish hoses / alarm system against fire).