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Personal Data:

Name : Mohamed Shaaban Abdelwahab Hassan.
Date of Birth : 9/9/1980.
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(Number of research articles: 116; h-index: 27; citations: 2600)

Qualifications:

- Ph.D. degree in materials science and nanotechnology from Faculty of Postgraduate Studies for Advanced Sciences - Beni-Sueif University May 2017 under the title: -

"Preparation, Characterization and Photocatalytic Activity of Some Nanocrystalline Transition Metal Oxides Thin Films"

- MSc degree in physical chemistry in the field of nanomaterials and nanotechnology from Faculty of Science - Beni-Sueif University October 2008 under the title: -

"Preparation and characterization of nanocrystallite alloys by reduction of transition metal oxides"

- Bachelor's degree of science, Chemistry department, May 2003, Cairo University, Beni-Suef Branch (very good 78.8 %)

Experiences:

- 1- Associate Professor (7 Sep 2024 – until now)** Department of Materials Science and Nanotechnology, Faculty of Postgraduate Studies for Advanced Sciences, Beni-Suef University, Beni-Suef, Egypt.
- 2- Assistant Professor (23 Feb 2022 – until now)** Department of Materials Science and Nanotechnology, Faculty of Postgraduate Studies for Advanced Sciences, Beni-Suef University, Beni-Suef, Egypt.
- 3- Assistant Professor (18 Aug 2019 – 3 Feb 2022)** Center of Nanotechnology (CNT), King Abdul Aziz University, Jeddah, Saudi Arabia.
- 4- Lecturer (12 Nov 2012 – 17 Aug 2019)** Center of Nanotechnology (CNT), King Abdul Aziz University, Jeddah, Saudi Arabia.
- 5- I worked as a teaching assistant (1 Sept 2007 till 1 Jul 2009) at Industrial Education College, Chemistry Department, Beni-Suef University, Egypt.**

Professional training/certifications:

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|--|--------------------------------|
| • Radio Frequency Deposition System | (Syskey Company, Taiwan) |
| • Electron Beam Deposition System | (Syskey Company, Taiwan) |
| • Low-Pressure Chemical Vapor Deposition | (Syskey Company, Taiwan) |
| • Vertical Chemical Vapor Deposition | (Syskey Company, Taiwan) |
| • Thermal Conductivity Analyzer | (Linseis, Germany) |
| • Tribometer | (CSM Instruments, Switzerland) |

Teaching in Beni-Suef University:

- Taught the following courses for postgraduate students at the Faculty of Postgraduate Studies for Advanced Sciences:
 - ✓ NT601/501 (Materials Science 1).
 - ✓ NT617/517 (Nanoparticle and Thin Film Technology).
 - ✓ NT504/604 (Instrumental Analysis).
- Taught the following course for undergraduate students at the Faculty of Earth Sciences:
 - ✓ AM 308 (Nanotechnology).

Research projects activities:

- 1- A research project entitled " Enhanced solar-driven photoelectrochemical water splitting using nanoflower Au/CuO/GaN hybrid photoanodes" from the Researchers Supporting Project Number (RSP2024R55), King Saud University, Riyadh, Saudi Arabia (2024).
- 2- A research project entitled " Advanced photodegradation and antimicrobial performance: A comparative study of Al/Ag-Co-doped ZnO synthesis via laser assist chemical bath " from the Deanship of Graduate Studies and Research, Ajman University (2024).
- 3- A research project entitled " Fast and Excellent Enhanced Photocatalytic Degradation of Methylene Blue Using Silver-Doped Zinc Oxide Submicron Structures under Blue Laser Irradiation" from the Deanship of Graduate Studies and Research, Ajman University (2023).
- 4- A research project entitled "High Performance of Nanostructured Cu₂O-Based Photodetectors Grown on a Ti/Mo Metallic Substrate" from the Researchers Supporting Project Number (RSPD2023R769), King Saud University, Riyadh, Saudi Arabia (2023).
- 5- A research project entitled " Electrocatalytic Degradation of Rhodamine B Using Li-Doped ZnO Nanoparticles: Novel Approach" from the Research Center for Advanced Material Science, King Khalid University, Saudi Arabia (2023).
- 6- A research project entitled " The density, mechanical, and shielding characteristics of a BaO–Al₂O₃–P₂O₅ doped with a V₂O₅ glass system: Theoretical and simulation study" from A research project entitled from the deanship of scientific research (DSR) at King Abdulaziz University, Jeddah, Saudi Arabia (2023).
- 7- A research project entitled "Facile Synthesis of Y₂O₃/CuO nanocomposites for photodegradation of dyes/mixed dyes under UV and Visible light irradiation" from Research Center for Advanced Material Science, King Khalid University, Saudi Arabia (2022).
- 8- A research project entitled "The Photocatalytic Performance of Nd₂O₃ Doped CuO Nanoparticles with Enhanced Methylene Blue Degradation: Synthesis,

Characterization and Comparative Study" from Research Center for Advanced Material Science, King Khalid University, Saudi Arabia (2022).

- 9- A research project entitled " Investigate the structure, mechanical, and optical properties of a novel cadmium phosphate glass containing vanadium oxide" from a research project entitled from the Deanship of scientific Research (DSR) at King Abdulaziz University, Jeddah, Saudi Arabia (2022).
- 10- A research project entitled "Impact of samarium on the structural and physical properties of sputtered ZnO thin films" from KAU, Jeddah, Saudi Arabia (2021).
- 11- A research project entitled "Enhancing the electrical, optical, and structure morphology using Pr_2O_3 -ZnO nanocomposites towards electronic varistors and environmental photocatalytic activity" from Research Center for Advanced Material Science, King Khalid University, Saudi Arabia (2021).
- 12- A research project entitled "Investigating the structural morphology, linear/nonlinear optical characteristics of Nd_2O_3 doped PVA polymeric composite films: Kramers-Kroning approach" from Research Center for Advanced Material Science, King Khalid University, Saudi Arabia (2021).
- 13- A research project entitled "Metals and ITO contact nature on ZnO and NiO thin films" from KAU, Jeddah, Saudi Arabia (2020).
- 14- A research project entitled " The structural and optoelectronic properties of $\text{Cu}_{1-x}\text{Ti}_x\text{O}$ ($0 \leq x \leq 0.05$) diodes prepared via a co-sputtering technique" from KAU, Jeddah, Saudi Arabia (2020).
- 15- A research project entitled "An investigation into the morphology and crystallization process of lithium borate glass containing vanadium oxide" from the Deputyship for Research & Innovation, Ministry of Education in Saudi Arabia (2020).
- 16- A research project entitled " The structure and optoelectronic characteristics of $\text{Ni}_{1-x}\text{Al}_x\text{O}$ films synthesized via co-sputtering technique" from KAU, Jeddah, Saudi Arabia (2019).
- 17- A research project entitled "Growth and correlation of the physical and structural properties of hexagonal nanocrystalline nickel oxide thin films with film thickness" from KAU, Jeddah, Saudi Arabia (2019).

- 18- A research project entitled "Influence the oxygen flow rate on the film thickness, structural, optical and photoluminescence behavior of DC sputtered NiO_x thin films" from KAU, Jeddah, Saudi Arabia (2018).
- 19- A research project entitled "Chemical state analysis, optical band gap, and photocatalytic decolorization of cobalt-doped ZnO nanospherical thin films by DC/RF sputtering technique" from Research Center for Advanced Material Science, King Khalid University, Saudi Arabia (2018).
- 20- A research project entitled "Microfibrous silver-coated polymeric scaffolds with tunable mechanical properties" from National Plan for Science, Technology and Innovation (MAARIFAH) – King Abdulaziz City for Science and Technology, Saudi Arabia (2017).
- 21- A research project entitled " Nanofibrous Silver-Coated Polymeric Scaffolds with Tunable Electrical Properties" from National Plan for Science, Technology and Innovation (MAARIFAH) – King Abdulaziz City for Science and Technology, Saudi Arabia (2017).
- 22- A research project entitled "Nanostructures as Lubricant Oil Additives" from KAU, Jeddah, Saudi Arabia (2016).
- 23- A research project entitled "Flow controlled fabrication of N doped ZnO thin films and estimation of their performance for sunlight photocatalytic decontamination of water" from KAU, Jeddah, Saudi Arabia (2015).

Application patent:

- 1- Adnan Memic, Tuerdimaimaiti Abudula, Ali Tamayol, Azadeh Mostafavi, Carina Russell, Tyrell Williams, Numan Abdullah Salah, Ahmed Salem Alshahrie, Ammar Abdulghani Melaibari, Asija Memic, **Mohamed Shaaban Abdel-wahab**, Mehdi Kazemzadeh Narbat, 3d printing of polymeric bioceramics for the treatment of bone defects, (U.S. Patent No 11,628,069, 2023).
- 2- Numan Salah, Adnan Memic, **Mohamed Shaaban Abdel-wahab**, Attieh A. Al-Ghamdi, Solar assisted water purification system, (U.S. Patent No 11,203,540, 2021).

- 3- Numan Salah, **Mohamed Shaaban Abdel-wahab**, Adnan Memic, Ahmed Alshahrie, Mohamed Aslam, Method for making a water treatment adsorbent filter, (U.S. Patent No 11,135,563, 2021).
- 4- Numan Salah, Adnan Memic, **Mohamed Shaaban Abdel-wahab**, Attieh A. Al-Ghamdi, Method for making fibrous nanoparticle-containing filter, (U.S. Patent No 11,111,166, 2021).
- 5- Numan Salah, **Mohamed Shaaban Abdel-wahab**, Adnan Memic, Ahmed Alshahrie, Mohamed Aslam, Method for removing polycyclic aromatic hydrocarbons from water using ball milled and sonicated oil fly ash powder, (U.S. Patent No 11,110,429,2021).
- 6- Numan Salah, Adnan Memic, **Mohamed Shaaban Abdel-wahab**, Attieh A. Al-Ghamdi, Light activated water treatment system, (U.S. Patent No 10/988,393, 2021).
- 7- Numan Salah, Adnan Memic, **Mohamed Shaaban Abdel-wahab**, Attieh A. Al-Ghamdi, Photocatalytic water treatment system, (U.S. Patent No US 10/981,812, 2021).
- 8- Numan Salah, **Mohamed Shaaban Abdel-wahab**, Adnan Memic, Ahmed Alshahrie, Mohamed Aslam, Method for making absorbent oil fly ash powder, (U.S. Patent No 11/154,837, 2021).
- 9- Numan Salah, **Mohamed Shaaban Abdel-wahab**, Adnan Memic, Ahmed Alshahrie, Mohamed Aslam, Method of removing organic pollutants from water using ball milled and sonicated oil fly ash powder, (U.S. Patent No 10/882,022, 2021).
- 10- Numan Salah, Adnan Memic, **Mohamed Shaaban Abdel-wahab**, Attieh A. Al-Ghamdi, Water treatment system and methods thereof, (U.S. Patent No 10/752,527, 2020).

Book chapter:

- 1- Mohammad Omaish Ansari, Rajeev Kumar, Shahid Pervez Ansari, **Mohamed Shaaban Abdel-wahab**, Ahmed Alshahrie, Mohamed Abou El-Fetough Barakat, Nanocarbon aerogel composites. In Nanocarbon and its Composites (pp. 1-26). Woodhead Publishing, Elsevier, 2019.

- 2- Mohammad Omaish Ansari, Sajid Ali Ansari, Moo Hwan Cho, Shahid Pervez Ansari, **Mohamed Shaaban Abdel-wahab**, Ahmed Alshahrie, Conducting Polymer Nanocomposites as Gas Sensors (pp. 911-940), Functional Polymers, Springer Link, 2019.
- 3- Asim Jilani, **Mohamed Shaaban Abdel-wahab**, Ahmed Hosny Hammad, Advance Deposition Techniques for Thin Film and Coating, In Modern Technologies for Creating the Thin-film Systems and Coatings, InTech, 2017.

Publications:

- 1- Sameeha R. Qutb, S. I. El-Dek, M.R. Hussein, **Mohamed Sh. Abdel-wahab**, Wael Z. Tawfik, Boosting Photoelectrochemical Water Splitting Performance via Nanostructured Ag-CuO Thin Films, *Physica B* 696 (2025) 416672.
- 2- Mona Mustafa, Mona Ali, **Mohamed Sh. Abdel-wahab**, Wael Z. Tawfik, M. F. Eissa, M.A.K. Elfayoumi, Hany Hamdy, and Tarek Mohamed, Using femtosecond laser pulses to investigate the thickness-dependent nonlinear optical properties of nickel oxide thin films and their potential use as optical limiters, *Applied Optics* 64 (9) (2025) C1-C10.
- 3- Sameeha R. Qutb , Wael Z. Tawfik, S. I. El-Dek , M.R. Hussein, **Mohamed Sh. Abdel-wahab**, Superior photoelectrodes of nanostructured Mo-doped CuO thin film for green hydrogen generation from photoelectrochemical water-splitting, *International Journal of Hydrogen Energy* 76 (2024) 190-201.
- 4- Omnia T. Nemr, **Mohamed Sh. Abdel-wahab**, Zeinab S. Hamza, Sayed A. Ahmed, Ashraf A El-Bassuony, Omima F. Abdel-Gawad, Hussein S. Mohamed, Investigating the Anticancer and Antioxidant Potentials of a Polymer-Grafted Sodium Alginate Composite Embedded with CuO and TiO₂ Nanoparticles, *Journal of Polymers and the Environment* 32 (2024) 2713-2728.
- 5- Wael Z. Tawfik, **Mohamed Sh. Abdel-wahab**, June Key Lee, Abdullah M. Al-Enizi, Rasha Y. Youssef, Modeling Specific Capacitance of Carbon Nanotube-Based Supercapacitor Electrodes by Machine Learning Algorithms, *Physica Scripta* 99 (2024) 066011.

- 6- Alhoda Abdelmoneim, M.A.K. Elfayoumi, **Mohamed Sh. Abdel-wahab**, Abdullah M. Al-Enizi, June Key Lee, Wael Z. Tawfik, Enhanced Solar-Driven Photoelectrochemical Water Splitting Using Nanoflower Au/CuO/GaN Hybrid Photoanodes, *RSC Advances* 14 (2024) 16846–16858.
- 7- Mazeen Wali Hakami, A. Abdeldaim Hassanein, E. Shaalan, Abdulla A. Salwati, Ahmed H. Hammad, M.S. Aida, **Mohamed Sh. Abdel-wahab**, Influence of substrate temperature and salt concentration on the properties of Vanadium dioxide thin films synthesized by spray pyrolysis, *Applied Physics A* 130 (2024) 310.
- 8- Alhoda Abdelmoneim, **Mohamed Sh. Abdel-wahab**, M.A.K. Elfayoumi, Ashour M. Ahmed, Alaa M. Ibrahim, Hasnaa Hamdy, Wael Z. Tawfik, Enhancing the Solar Hydrogen Generation Performance of Nickel-Oxide Nanostructured Thin Films Doped with Molybdenum, *Physica Scripta* 99 (2024) 045906.
- 9- Samer H. Zyoud, Akram Ashames, Ahed H. Zyoud, Anupama R Prasad, Che Azurahaman Che Abdullah, Shaher H. Zyoud, Ibrahim S. Yahia, Ghaseb N. Makhadmeh, Awais Khalid, Naser Qamhieh, Heba Y. Zahran, Sani Muhammad, **Mohamed Sh. Abdel-wahab**, Advanced Photodegradation and Antimicrobial Performance: A Comparative Study of Al/Ag-Co-Doped ZnO Synthesis via Laser Assist Chemical Bath, *Materials Science & Engineering: B* 309 (2024) 117649.
- 10- Alhoda Abdelmoneim, **Mohamed Sh. Abdel-wahab**, M.A.K. Elfayoumi, Mohamed Shaban, Wael Z. Tawfik, Enhancing Photoelectrochemical Water-Splitting Performance of ZnO Nanostructured Thin Films with Copper Doping, *Physica Scripta* 99 (2024) 0959a3.
- 11- Mervat Ismail Mohammed, Ibrahim S. Yahia, H. Y. Zahran, V. Ganesh4, Samer H. Zyoud, **Mohamed Sh. Abdel-wahab**, Malek G. Daher, and Saleh M. Altarifi, Optical and electrical analysis of Rhodamine 110 chloride/PVA-PEG for smart and flexible optical sensor technology, *Physica Scripta* 99 (2024) 105957.
- 12- Samer H. Zyoud, Bayan M. Al Radi, Bashayer M. Al Maamari, Mohamed Nasor, H.Y. Zahran, I.S. Yahia, Taimoor Ahmad, Sohaib N. Khan, Ahed H. Zyoud, Moyad Shahwan, Nageeb Hassan, Akram Ashames, Malek G. Daher, Ghaseb N.

- Makhadmeh, Naser Qamhieh, Ammar Abdulrahman Jairoun, **Mohamed Sh. Abdel-wahab**, Efficient Al-doped ZnO Nanostructured Synthesis by Laser-Assisted Chemical Bath: Structural, Optical, and Photocatalytic Activity Using Blue Laser Irradiation, *Indian Journal of Physics* 98 (2024) 549-560.
- 13- **Mohamed Sh. Abdel-wahab**, Alaa M. Ibrahim, Ahmed A. Farghali, Wael Z. Tawfik, Sputtered nanocrystalline samarium doped CuO photoelectrode for efficient photoelectrochemical water splitting, *Materials Today Communications* 37 (2023) 107122.
- 14- **Mohamed Sh. Abdel-wahab**, Hadeer K. El Emam, Waleed M.A.El Rouby, Sputtered Cu-doped NiO Thin Films as an Efficient Electrocatalyst for Methanol Oxidation, *RSC Advances* 13 (2023) 10818-10829.
- 15- **Mohamed Sh. Abdel-wahab**, Hadeer K. El Emam, Waleed M.A.El Rouby, Sputtered Ag-doped NiO Thin Films: Structural, Optical, and Electrocatalytic Activity Toward Methanol Oxidation, *Journal of Materials Science: Materials in Electronics* 34 (2023) 1637.
- 16- Asmaa Al-Rasheedi, M. Khammar, A. Abdeldaim Hassanein, M.S. Aida, **Mohamed Sh. Abdel-wahab**, Growth of self-aligned ZnO nanorods by hydrothermal process, *Physica Scripta* 98 (2023) 125947.
- 17- Ahmed H. Hammad, **Mohamed Sh. Abdel-wahab**, Blue emission of nanocrystalline NiO_{0.96} thin films doped with metallic copper, *Indian Journal of Physics* 97 (2023) 2159-2167.
- 18- Hasnaa H. Abdelhalium, **Mohamed Sh. Abdel-wahab**, M. T. Tamm, Wael Z. Tawfik, Highly Efficient Ultraviolet Photodetector Based on Molybdenum Doped Nanostructured NiO/ITO Thin Film, *Applied Physics A* 129 (2023) 459.
- 19- Ahmed H. Hammad, **Mohamed Sh. Abdel-wahab**, A. Alshahrie, Hamzah Salwati, Abdu Saeed, M.A.N. Razvi, Numan Salah, Ahmed R. Wassel, Structured cadmium sodium diborate glass optical bandpass filters doped with copper oxide: Impact of cadmium oxide, *Materials Today Communications* 35 (2023) 106196.
- 20- Alaa M. Ibrahim, **Mohamed Sh. Abdel-wahab**, M. A. K. Elfayoumi, Wael Z. Tawfik, Highly efficient sputtered Ni-doped Cu₂O photoelectrodes for solar

hydrogen generation from water-splitting, *International Journal of Hydrogen Energy* 48 (2023) 1863-1876.

- 21- Essam B. Moustafa, **Mohamed Sh. Abdel-wahab**, Ahmed H. Hammad, The density, mechanical, and shielding characteristics of a BaO–Al₂O₃–P₂O₅ doped with a V₂O₅ glass system: Theoretical and simulation study, *Radiation Physics and Chemistry* 207 (2023) 110881.
- 22- Alhoda Abdelmoneim, **Mohamed Sh. Abdel-wahab**, June Key Lee, Meera Moydeen Abdul Hameed, Badr M. Thamer, Abdullah M. Al-Enizi, Rayana Ibrahim Alkhalifah, Wael Z. Tawfik, High performance of nanostructured Cu₂O-based photodetectors grown on a Ti/Mo metallic substrate, *Catalysts* 13 (2023) 1145.
- 23- Fatma Abdalsamad, **Mohamed Sh. Abdel-wahab**, Wael Z. Tawfik, Hamza Qayyum, Retna Apsari, Tarek Mohamed, Thickness-dependent nonlinear optical properties of ITO thin films, *Optical and Quantum Electronics* 55 (2023) 753.
- 24- Samer H. Zyoud, Ali Almoadi, Thekrayat H. AlAbdulaal, Mohammed S. Alqahtani, Farid A. Harraz, M. S. Al-Assiri, Ibrahim S. Yahia, Heba Y. Zahran, M.I. Mohammed, **Mohamed Sh. Abdel-wahab**, Linear/nonlinear optical characteristics of PVA/PVP doped on ZnO polymeric films for electronic and optical limiting applications, *crystals* 13 (2023) 608.
- 25- Salem .D. Al Ghamdi, Ahmed Obaid M. Alzahrani, N.M.K. Sebhi, M.S. Aida, **Mohamed Sh. Abdel-wahab**, Electrical properties of CuO/ZnO heterojunction prepared by spray pyrolysis, *Semiconductor Science and Technology* 38 (2023) 085009.
- 26- Hanan Elhaes, Ahmed I. Abdel-Salam, Islam Gomaa, Asmaa Ibrahim, Ibrahim S. Yahia, Heba Y. Zahran, Hend A.Ezzat, Mohamed Zahran, **Mohamed Sh. Abdel-wahab**, Ahmed Refaat, Medhat A. Ibrahim, Facile synthesis, structural, morphological and electronic investigation of Mn₂O₃ nano-rice shape and Mn₂O₃-rGO hybrid nanocomposite, *Optical and Quantum Electronics* 55:947 (2023).
- 27- Samer H. Zyoud, Vanga Ganesh, Che Azurahaman Che Abdullah, I.S. Yahia, Ahmed H. Zyoud, Atef F. I. Abdelkader, Malek G. Daher, Mohamed Nasor, Moyad Shahwan, H.Y. Zahran, M.S. Abd El-sadek, Elbadawy A. Kamoun, Saleh M.

- Altarifi, **Mohamed Sh. Abdel-wahab**, Facile Synthesis of Ni-Doped ZnO Nanostructures via Laser-Assisted Chemical Bath Synthesis with High and Durable Photocatalytic Activity, *Crystals* 13 (2023) 1087.
- 28- Samer H. Zyoud, Samer O. Alalalmeh, Omar E. Hegazi, I. S. Yahia , H. Y. Zahran, Hamed Abu Sara, Samir Haj Bloukh, Moyad Shahwan, Ahed H. Zyoud, Nageeb Hassan, Akram Ashames, Malek G. Daher, Ghaseb N. Makhadmeh, Ammar Abdulrahman Jairoun, Naser Qamhie, **Mohamed Sh. Abdel-wahab**, Novel Laser-Assisted Chemical Bath Synthesis of Pure and Silver-Doped Zinc Oxide Nanoparticles with Improved Antimicrobial and Photocatalytic Properties, *catalysts* 13 (2023) 900.
- 29- V. Ganesh, B. Ravi Kumar, T.H. AlAbdulaal, I.S. Yahia, **Mohamed Sh. Abdel-wahab**, Ramesh Ade, Mai S. A. Hussien, and Mohamed Keshway, Electrocatalytic degradation of Rhodamine B using Li-doped ZnO nanoparticles: Novel approach, *materials* 16 (2023) 1177.
- 30- Samer H. Zyoud, Ali Almoadi, Thekayat H. AlAbdulaal, Mohammed S. Alqahtani, Farid A. Harraz, M. S. Al-Assiri, Ibrahim S. Yahia, Heba Y. Zahran, M.I. Mohammed, **Mohamed Sh. Abdel-wahab**, Structural, optical, and electrical investigations of Nd₂O₃ -doped PVA/PVP polymeric composites: For electronic and optoelectronic applications, *polymers* 15 (2023) 1351.
- 31- Samer H. Zyoud, W. Jilani, Abdelfatteh Bouzidi, Thekayat H. AlAbdulaal, Farid A. Harraz, M. S. Al-Assiri, Ibrahim S. Yahia, Heba Y. Zahran, Medhat A. Ibrahim, **Mohamed Sh. Abdel-wahab**, The impact of ammonium fluoride on structural, absorbance edge, and the dielectric properties of polyvinyl alcohol films: Towards a novel analysis of the optical refractive index, and CUT-OFF laser filters, *crystals* 13 (2023) 376.
- 32- Samer H. Zyoud, I.S. Yahia, Moyad Shahwan, Ahed H. Zyoud, H.Y. Zahran, **Mohamed Sh. Abdel-wahab**, Malek G. Daher, Mohamed Nasor, Ghaseb N. Makhadmeh, Nageeb Hassan, Akram Ashames, Naser Qamhie, Fast and Excellent Enhanced Photocatalytic Degradation of Methylene Blue Using Silver-Doped Zinc Oxide Submicron Structures Under Blue Laser Irradiation, *crystals* 13 (2023) 229.

- 33- Rania Badry, Asmaa Ibrahim, Fatma Gamal, Hanan Elhaes, Ibrahim S. Yahia, Heba Y. Zahran, Mohamed Zahran, **Mohamed Sh. Abdel-wahab**, Samer H. Zyoud, and Medhat A. Ibrahim, Design and implementation of low-cost gas sensor based on functionalized graphene quantum dot/Polyvinyl alcohol polymeric nanocomposites, *Optical and Quantum Electronics* 55 (2023) 247.
- 34- Ahmed H. Hammad, **Mohamed Sh. Abdel-wahab**, Photocatalytic activity in nanostructured zinc oxide thin films doped with metallic copper, *Physica B: Physics of Condensed Matter* 646 (2022) 414352.
- 35- M.S. Aida, **Mohamed Sh. Abdel-wahab**, Ahmed H. Hammad, Impact of Samarium on the Structural and Physical Properties of Sputtered ZnO Thin Films, *Optik* 250 (2022) 168322.
- 36- Salem D. Al Ghamdi, Ahmed Obaid M. Alzahrani, M. S. Aida, **Mohamed Sh. Abdel-wahab**, Influence of substrate temperature and solution molarity on CuO thin films' properties prepared by spray pyrolysis, *Journal of Materials Science: Materials in Electronics* 33 (2022) 14702-14710.
- 37- Ahmed Alshahrie, A.A. Al-Ghamdi, **Mohamed Sh. Abdel-wahab**, Waleed E. Mahmoud, The structure and optoelectronic characteristics of $\text{Ni}_{1-x}\text{Al}_x\text{O}$ films synthesized via co-sputtering technique, *Physica B* 626 (2022) 413575.
- 38- Fatma Abdel Samad, **Mohamed Sh. Abdel-wahab**, Wael Z. Tawfik, Rozalina Zakaria, Venugopal Rao Soma, Tarek Mohamed, Investigating the influence of ITO thin film thickness on Optical Kerr Nonlinearity using Ultrashort Laser Pulses, *Journal of the Optical Society of America B* 39 (2022) 1388-1399.
- 39- Vanga Ganesh, Thekayat H. AlAbdulaal, Manal AlShadidi, Mai S. A. Hussien, Abdelfatteh Bouzidi, Hamed Algarni, Heba Y. Zahran, **Mohamed Sh. Abdel-wahab**, Mervat I. Mohammed, Ibrahim S. Yahia, Enhancement in the structural, electrical, optical, and photocatalytic properties of La_2O_3 -doped ZnO nanostructures, *materials* 15 (2022) 6866.
- 40- Vanga Ganesh, Mai S.A. Hussien, Umamar Pasha Shaik, Ramesh Ade, Mervat I. Mohammed, T.H. AlAbdulaal, Heba Y. Zahran, Ibrahim S. Yahia, **Mohamed Sh.**

- Abdel-wahab**, Impact of Mo-Doping on the Structural, Optical, and Electrocatalytic Degradation of ZnO Nanoparticles: Novel Approach, *Crystals* 12 (2022) 1239.
- 41- F. El-Sayed, V. Ganesh, Mai S.A. Hussien, T.H. AlAbdulaal, H.Y. Zahran, I.S. Yahia, **Mohamed Sh. Abdel-wahab**, Mohd Shakir, Yugandhar Bitla, Facile Synthesis of Y_2O_3/CuO nanocomposites for photodegradation of dyes/mixed dyes under UV and Visible light irradiation, *Journal of Materials Research and Technology* 19 (2022) 4867-4880.
- 42- F. El-Sayed, Mai S. A. Hussien, T.H. AlAbdulaal, Abdel-Haleem Abdel-Aty, H.Y. Zahran, I.S. Yahia, **Mohamed Sh. Abdel-wahab**, Essam H. Ibrahim, Medhat A. Ibrahim, Hanan Elhaes, Study of catalytic activity of G-SrO nanoparticles for degradation of cationic and anionic dye and comparative study photocatalytic and electro & photo-electrocatalytic of anionic dye degradation, *Journal of Materials Research and Technology* 20 (2022) 959-975.
- 43- Shaimaa Mohamed, Fatma Abdel Samad, Mohamed Ashour, **Mohamed Sh. Abdel-wahab**, Wael Tawfik, Venugopal Rao Soma, and Tarek Hassan, Enhanced and Tunable Femtosecond Nonlinear Optical Properties of Pure and Nickel-doped Zinc Oxide Films, *Applied Optics* 61(25) (2022) 7283-7291.
- 44- Hosam M. Gomaa, T. H. AlAbdulaal, I. S. Yahia, A. M. Ismail, M. I. Mohammed, H. Y. Zahran, Samer H. Zyoud, **Mohamed Sh. Abdel-wahab**, Mohamed Zahran, Medhat A. Ibrahim, Exploring the Optical and Electrical Properties of 70%PVP/30%PVA Blend Polymer Doping with Graphene Thin Films For Optoelectronics Applications, *Journal of Electronic Materials* 51 (2022) 5897-5907.
- 45- T.H. AlAbdulaal, M. AlShadidi, Mai S. A. Hussien, G. Vanga, A. Bouzidi, H. Algarn, H.Y. Zahran, **Mohamed Sh. Abdel-wahab**, I.S. Yahia, Dalia Elfiky, Mohammed Jalalah, Farid A. Harraz, M. S. Al-Assiri, One-pot Synthesis of Multifunctionalized Nd_2O_3 dispersed ZnO nanocomposites for enhancing Electrical, Optical, and Photocatalytic applications, *Journal of Materials Research and Technology* 19 (2022) 967-988.

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