

Tarek Saleh Attia Soliman

Benha, Kalyobiya, Egypt

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Site: <http://bu.edu.eg/portal/index.php?act=46&prof_id=1448>

**PERSONAL INFORMATION:**

Date of Birth:  **21 / 05/ 1985**

Gender:  **Male**

Marital Status:  **Married**

Nationality:  **Egyptian**

**EDUCATION:**

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| Ural Federal University, Institute of Natural Science, Russia* **Ph.D.** In Solid State Physics (*Physics of Polymers*)
 | 2012-2016 |
| University of Benha, Faculty of Science, Egypt* **M.Sc**. in experimental Physics (Solid State Physics)
 | 2008- 2011 |
| University of Benha, Faculty of Science, Egypt * B.Sc. in Physics (Very Good with Honors)
 | 2002 - 2006 |

**EMPLOYMENT RECORDS:**

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| Demonstrator in physics department, Faculty of Science, Benha University  | *From 2006 till 2011* |
| * Assistant Lecturer in physics department, Faculty of Science, Benha University
 | *From 2011 till 2016* |
| * Lecturer in physics department, Faculty of Science, Benha University.
 | *From 2016 till 2022* |
| * Postdoctoral Researcher at Institute of Natural Science and Mathematics, Ural Federal University, Russia.(*PostDoc grant from Russia*)
 | *From 2018 till 2020* |
| * Associate Professor (*decision at 26.3.2022*)
 | *2022* |

**RESEARCH INTERESTS:**

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| **General field** | Solid state physics |
| **Special field** | Physics of polymer, Nano-composite polymers for Photovoltaic applications.Material science |

**RESEARCH PROJECTS:**

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| 1. Member in the team of a project “**Development novel nano-composite materials to improve the efficiency of photovoltaic cells**” funded by the (STDF), academy of science, **Egypt** – *from 2010 to 2012*.
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| 1. Member in the team of a project “**Self-Assembly of Nano- and Supramolecular Particles and Rheological Properties of Anisotropic Systems in a Magnetic Field**” funded by (RFBR), **Russia** No. 12-08-0038-a. from 2013 to 2014
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**Language:**

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|  | * Fluent in Arabic
* Very good in English
* Good in Russian
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**TEACHING:**

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| * Teaching of practical courses of Physics to the undergraduate students since 2006 till 2016.
* Teaching of Physics courses (properties of matter, applied physics) to the undergraduate students since 2017 till now.
* Teaching of courses of Solid-State Physics and course of Crystal Growth to the undergraduate students since 2017 till now.
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|  **Scientific Achievements** |
| ***h* index (SCOPUS)****10** | **Citations (SCOPUS)****341** | **Total no. of Int. publications in SCOPUS****22** |

**Links:**

* ***Scopus*:** <https://www.scopus.com/authid/detail.uri?authorId=57216939689>
* ***Research gate*:** <https://www.researchgate.net/profile/T-Soliman-2>
* **Google scholar:** <https://scholar.google.com.eg/citations?hl=en&user=b6Bcj0kAAAAJ&view_op=list_works&sortby=pubdate>

**List of publications:-**

1. E. Sheha, H. Khoder, **T.S. Shanap**, M.G. El-Shaarawy and M. K. El Mansy,” Structure, dielectric and optical properties of P-type (PVA / CuI) nanocomposite polymer electrolyte for photovoltaic cells”, *Optik* , V.123(13), **2012**, Pages 1161-1166.
2. G. D. Sharma, **T. S. Shanap**, K.R. Patel, M. K. El-Mansy, “Photovoltaic properties of bulk heterojunction devices based CuI-PVA as electron donor and PCBM and modified PCBM i.e. F as electron acceptor”, *Materials Science-Poland*, V.30(1), **2012**, Pages 10-16.
3. M.H. Makled, E. Sheha, **T.S. Shanap**, M.K. El-Mansy,Electrical Conduction and Dielectric relaxation in P- type PVA/CuI Polymer Composite”, *Journal of Advanced Research*, V. 4(6), **2013**, Pages 531-538.
4. **T.Saleh**, A, Kösemen, S. Eren San, M. K. El Mansy , “Preparation and characterization of CuI/PVA–PEDOT:PSS core–shell for photovoltaic application”, *Optik*, V.125(9), **2014**, Pages 2009-2016.
5. S.A.Vshivkov, **T.S. Soliman**, Phase transitions, structures, and rheological properties of hydroxypropyl cellulose–ethylene glycol and ethyl cellulose–dimethylformamide systems in the presence and in the absence of a magnetic field, *Polymer Science - Series A*, **2016**, 58(4), стр. 499–505.
6. S.A.Vshivkov, **T.S. Soliman**, Effect of a magnetic field on the rheological properties of the systems hydroxypropyl cellulose–ethanol and hydroxypropyl cellulose–dimethyl sulfoxide, *Polymer Science - Series A*, **2016**, 58(3), стр. 307–314.
7. **T.S. Soliman**, S.A. Vshivkov, Effect of Fe nanoparticles on the structure and optical properties of polyvinyl alcohol nanocomposite films, Journal of Non-Crystalline Solids. 519 (**2019**) 119452. <https://doi.org/10.1016/j.jnoncrysol.2019.05.028>.
8. S.A. Vshivkov, **T.S. Soliman**, E.S. Kluzhin, A.A. Kapitanov, Structure of poly(acrylic acid), poly(methacrylic acid) and gelatin solutions, Journal of Molecular Liquids. 294 (**2019**) 111551. <https://doi.org/10.1016/j.molliq.2019.111551>.
9. **T.S. Soliman**, A.S. Abouhaswa, Synthesis and structural of Cd0.5Zn0.5F2O4 nanoparticles and its influence on the structure and optical properties of polyvinyl alcohol films, Journal of Materials Science: Materials in Electronics. 31 (**2020**) 9666–9674. <https://doi.org/10.1007/s10854-020-03512-6>.
10. **T.S. Soliman**, S.A. Vshivkov, S.I. Elkalashy, Structural, linear and nonlinear optical properties of Ni nanoparticles – Polyvinyl alcohol nanocomposite films for optoelectronic applications, Optical Materials. 107 (**2020**) 110037. <https://doi.org/10.1016/j.optmat.2020.110037>.
11. **T.S. Soliman**, S.A. Vshivkov, S.I. Elkalashy, Structural, thermal, and linear optical properties of SiO2 nanoparticles dispersed in polyvinyl alcohol nanocomposite films, Polymer Composites. 41:8 (**2020**) 3340-3350. <https://doi.org/10.1002/pc.25623>.
12. **T.S. Soliman**, Elkalashy, S.I., Elrasasi, T.Y., El-Mansy, M.K., The Effect of TMEDA on the Structural, Optical and Electrochemical Properties of CuI Embedded in Polyvinyl alcohol Nanocomposite Films, *Polymer Science - Series A*, **2020**, 62(3), стр. 284–291. <https://doi.org/10.1134/S0965545X2003013X>
13. **T.S. Soliman,** Rashad, A.M., Ali, I.A., Khater, S.I., Elkalashy, S.I., Investigation of Linear Optical Parameters and Dielectric Properties of Polyvinyl Alcohol/ZnO Nanocomposite Films, *Physica Status Solidi (A) Applications and Materials Science*, **2020**, 217(19), 2000321. <https://doi.org/10.1002/pssa.202000321>
14. A.I. Helal, S. A. Vshivkov, M. F. Zaki, Sh. I. Elkalashy, **T. S. Soliman**, Effect of carbon nano tube in the structural and physical properties of polyvinyl chloride films, Physica Scripta. 96 (**2021**) 085804. <https://doi.org/10.1088/1402-4896/abf86c>
15. **T.S. Soliman**, M.F. Zaki, M.M. Hessien, S.I. Elkalashy, The structure and optical properties of PVA-BaTiO3 nanocomposite films, Optical Materials, 111 (**2021**) 110648. <https://doi.org/10.1016/j.optmat.2020.110648>
16. S.A. Issa, H.M.H. Zakaly, M. Pyshkina, M.Y.A. Mostafa, M. Rashad, **T.S. Soliman**, Structure, optical, and radiation shielding properties of PVA–BaTiO3 nanocomposite films: An experimental investigation, Radiation Physics and Chemistry. 180 (**2021**) 109281. <https://doi.org/10.1016/j.radphyschem.2020.109281>
17. **T.S. Soliman**, M.M. Hessien, E. Sheha, [Probing a new halogen-free electrolyte and Ba0.85Sm0.1TiO3 cathode for Mg battery applications](https://www.scopus.com/record/display.uri?eid=2-s2.0-85118201782&origin=resultslist&sort=plf-f), [Journal of Materials Science: Materials in Electronics](https://www.scopus.com/sourceid/21177?origin=resultslist), 32(24) (**2021),** pp. 28781–28791. <https://doi.org/10.1007/s10854-021-07263-w>
18. **T.S. Soliman**, S.I. Elkalashy, M.F. Zaki, D.H. Shabaan, [Structural and optical analysis of gamma-induced modification in polycarbonate nuclear track detector](https://www.scopus.com/record/display.uri?eid=2-s2.0-85114964149&origin=resultslist&sort=plf-f), [Physica Scripta](https://www.scopus.com/sourceid/29122?origin=resultslist), 96(12) (**2021**), 125814. <https://doi.org/10.1088/1402-4896/ac227d>
19. **T.S. Soliman**, E.V. Rusinova, S.A.Vshivkov, Effect Of Magnetic Field On Rheological Properties Of Cellulose Ethers Solutions, ChemChemTech, 64(4) (**2021**), pp. 21–25. <https://doi.org/10.6060/ivkkt.20216404.6334>
20. A.I. Abdel-Salam, M.M. Awad, , **T.S. Soliman**, A. Khalid, The effect of graphene on structure and optical properties of CdSe nanoparticles for optoelectronic application, 898 (**2022**), 162946. https://doi.org/10.1016/j.jallcom.2021.162946
21. **T.S. Soliman**, M.M.Hessien, S.I.Elkalashy, [Structural, thermal, and optical properties of polyvinyl alcohol films doped with La2ZnOx nanoparticles](https://www.scopus.com/record/display.uri?eid=2-s2.0-85122630528&origin=resultslist&sort=plf-f), Journal of Non-Crystalline Solids, 580 (**2022**), 121405. https://doi.org/10.1016/j.jnoncrysol.2022.121405
22. M.F. Zaki, S.I. Elkalashy, **T.S. Soliman**, [A comparative study of the structural, optical and morphological properties of different types of Makrofol polycarbonate](https://www.scopus.com/record/display.uri?eid=2-s2.0-85122961531&origin=resultslist&sort=plf-f), [Polymer Bulletin](https://www.scopus.com/sourceid/21445?origin=resultslist), **2022**. <https://doi.org/10.1007/s00289-021-04011-2>.

**International conferences:-**

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| ***№*** | **Authors** | **Title of abstract** | **Title of the confernce** | **Conference Dates** | **Country** |
| *1* | *S.A. Vshivkov, E.V. Rusinova, A.G. Galyas,* ***T.S. Soliman*** | *phase transition, self ordering and rheological properties of liquid crystal nanosystems in magnetic field and in its absence* | *8th International Symposium "Molecular Order and Mobility in Polymer Systems"* | *2-6 June* ***2014*** | ***St. Petersburg*** |
| *2* | *S.A. Vshivkov, E.V. Rusinova, A.G. Galyas,* ***T.S. Soliman*** | Phase transitions and rheological properties of liquid crystal polymer systems in magnetic field | 10th Annual European Rheology Conference | 14-17April **2015** | Nantes –**France** |
| *3* | ***Soliman T. S.****, Galyas A. G., Rusinova E. V., Vshivkov S. A.* | Rheological Properties of Polymer Systems in Magnetic Field | XIII International Conference on Polymer Engineering. (ICPE 2015) | 16-17 February **2015** | London **– U.K.** |
| *4* | ***Soliman T. S.****, Galyas A. G., Rusinova E. V., Vshivkov S. A.* | Effect of Magnetic Field on the Rheological Properties of Cellulose Ether and its Derivatives | 2nd International Conference on Rheology and Modeling of Materials *http://www.ic-rmm2.eu/* | 5-9 October **2015** | Miskolc – **Hungary** |
| *5* | ***Soliman T. S.****, Galyas A. G., Vshivkov S. A.* | Structure and Rheological Behavior of Polymer Liquid Crystals under the Effect of Magnetic Field | III International Conference on Chemistry and Chemical Technology for Promising and Upcoming Young Scientists «Chemistry in the federal universities» | 1-5 November **2015** | Ekaterinburg, **Russia** |