Ahmed Samir Mahmoud Ahmed Soliman

Associate Professor of Engineering Physics

Date of Birth: **Feb., 1, 1983**
Nationality: **Egyptian**
Marital Status: **Married**
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Education

- **Ph.D. in Engineering Physics, 2014**
  - Engineering Mathematics and Physics Department, Faculty of Engineering Shoubra, Benha University.

  Topic: "Preparation and Study of the Physical Properties of a Glassy System"

  Supervisors: Prof. Dr. Mohamed M. El-Okr, Prof. Dr. Fatma M. Metawe, Ass.Prof. Dr. Mohamed A. El-Sherbiny, Dr. Hytham A. Abdel-Ghany.

- **M.Sc. in Engineering Physics, 2011**
  - Engineering Mathematics and Physics Department, Faculty of Engineering Shoubra, Benha University, Egypt.
    Topic: "Physical Behavior of Glasses Doped with Rare Earth Element"
  - **Supervisors**: Prof. Dr. Mohamed M. El-Okr, Prof. Dr. Fatma M. Metawe, Dr. Mohamed Farouk.

- **B.Sc. in Electrical Power and Electrical Machines, 2005**
  - Electrical Engineering Department, Faculty of Engineering at Shoubra, Benha University, Egypt (Very good with honor)

Research Areas

Science topics: Glass Science - Optical Properties – Material Science

Teaching Courses

- Engineering Physics.
- Properties of matter.
- Electrostatics and Electrodynamics.
- Engineering Optics and laser.
- Electromagnetism.
- Thermodynamics and Heat Transfer.
- Fundamentals of Solids & Crystal Structure
- Mechanical Waves and Sound.
- Electrostatics and Electrodynamics.

Technical Skills

Glasses preparation and study experimental measurements on it such as Differential thermal analysis DTA - Optical measurements – FTIR measurements – Electron spin resonance ESR measurements .

Employment

- **2021- Present:** Associate Professor, Basic science Departement, Faculty of Engineering at Shoubra, Benha University, Egypt.
- **2014 – 2021:** Lecturer, Engineering Mathematics and Physics Department, Faculty of Engineering at Shoubra, Benha University, Egypt.
- **2011 – 2014:** Assistant Lecturer, Engineering Mathematics and Physics Department, Faculty of Engineering at Shoubra, Benha University, Egypt.
- **2006 – 2011:** Demonstrator for engineering physics, Engineering Mathematics and Physics Department, Faculty of Engineering at Shoubra, Benha University, Egypt.

Publications

1-M. Farouk, **A. Samir**, F. Metawe, M. Elokr, Optical absorption and structural studies of bismuth borate glasses containing Er^{3+} ions. Journal of Non-Crystalline Solids 371, 14-21 (2013).

2-M. El- Sherbiny, A. Samir, H. A. Abd El-Ghany, F. Metawe, M.M. El-Okr, Optical and physical studies of Bi doped borate glassy system. Egyptian Journal of Solids, 36, 51-62 (2013).

3- Ahmed Abokhadra, **A. Samir**, M. A. Hassan, L. I. Soliman, M. M. Elokr, Effect of alkali type on the optical behavior of Cu doped borate glass bandpass filter. Egyptian Journal of Solids, 40, 11–19 (2017).

4- M. Farouk, **A. Samir**, M. El Okr, Effect of alkaline earth modifier on the optical and structural properties of Cu^{2+} doped phosphate glasses as a bandpass filter. Physica B: Physics of Condensed Matter 530, 43 – 48 (2018).

5- A. Samir, Moukhtar A. Hassan, A. Abokhadra, L. I. Soliman, M. Elokr, Characterization of borate glasses doped with copper oxide for optical application. Optical and Quantum Electronics 51,123–136 (2019).

6- M. Farouk, F. Ahmad, **A. Samir**, Ligand field and spectroscopic investigations of cobalt doped erbium–zinc borate glasses. Optical and Quantum Electronics 51,292 – 304 (2019).

7- M. Farouk, **A. Samir**, A. Ibrahim, M. A. Farag, A. Solieman, Raman, FTIR studies and optical absorption of zinc borate glasses containing WO_3. Applied Physics A 126:696 (2020).

8- **A. Samir**, Influence of Na_2O Addition on the Alkali Borochromate Glasses: Structure and Ligand Field. Indian Journal of Physics (2020).

9- Essam A. Elkelany, Moukhtar A. Hassan, **A. Samir**, A.M. Abdel-Ghany, H.H. El-Bahnasawy, M. Farouk, Optical and Mössbauer spectroscopy of lithium tetraborate glass doped with iron oxide. Optical Materials 112 (2021) 110744

10- A. I. Ismail, **A. Samir**, F. Ahmad, L. I. Soliman, A. Abdelghani, the effect of radiation on the structure and ligand field of borate glasses containing Cr ions. Optical and Quantum Electronics (2021) 53:168

11- A. I. Ismail, **A. Samir**, F. Ahmad, L. I. Soliman, A. Abdelghani, Spectroscopic Studies and The Effect of Radiation of Alkali Borate Glasses Containing Chromium Ions. Journal of Non-Crystalline Solids 565 (2021) 120743.

12- M. Farouk, H.M. Mokhtar, Z.M. Abd El-Fattah, **A. Samir,** Vanadyl doped Li-zinc borate glasses: Optical and ESR study, Journal of Non-Crystalline Solids 568 (2021) 120964.

13- A. Samir, Moukhtar A. Hassan, F. Ahmad c, M.S. Sadeq, S.Y. Marzouk f, H. Y.Morshidy, Impacts of BaO additives on the mechanical, optical and radiation shielding properties of BaO–K2O– CoO–Al2O3–B2O3 glasses, Optical Materials 143 (2023) 114195.

14- H.Y. Morshidy, Essam A. Elkelany , Kareem T. Abul-Nasr, **A. Samir**, H.H. El-Bahnasawy, Moukhtar A. Hassan, ^{57}**Fe** M¨ossbauer, optical and structural properties with ligand field effects of borosilicate glass doped with iron oxide, Materials Today Communications 37 (2023) 106917.

15- M. Attallah, M. Farouk, **A. Samir**, Optimize the structural, optical, and thermal properties of Nd3+ ions doped boro-aluminum- tungsten glass, *Ceramics International*