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 **Web of Science ResearcherID: KFR-5079-2024**



➤ **Education**

BSc.

University: Buin Zahra Technical and Engineering University (BZTU)

Major: Engineering sciences, Nanotechnology

Thesis: Studying the physical properties and evolution of nickel oxide nanostructures for sensing applications

Supervisor: Dr. Maryam Amirhosseini

Msc.

University: Malek Ashtar University of Technology (MUT)

Major: Nanotechnology, Nanomaterials

Thesis: Optimizing the synthesis variables of silver nanowires for use in transparent and EMI shielding coatings

Supervisor: Dr. Seyed Reza Shoja Razavi

PhD

Thesis:

Supervisors: Dr. Yasaman Sadat Borghei

➤ **Research Experience:**

- ❖ **Studying the physical properties and evolution of nickel oxide nanostructures for sensing applications**

❖ **Optimization of synthesis parameters of silver nanowires for use in transparent coatings and Electromagnetic Interference (EMI) Shielding**

✓ **Software skills**

- Microsoft Office software collection / Adobe Photoshop software / EndNote 20 software / Origin 2022 software / Xpert HighScore Plus software / Design Expert software / Digimizer software / ImageJ software

✓ **Analytical skills**

- XRD test analysis / UV-Vis test analysis / DRS test analysis / Analysis of FE-SEM / SEM / TEM tests / FT-IR test analysis / TGA/DSC test analysis / Analysis of EMI calculations
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➤ **Publications:**

✓ **International conference papers:**

- Optimizing the synthesis parameters of silver nanowires for use in transparent coatings and EMI shields | Publisher: Civilica | Indexing Date: 2023-12-23 <https://civilica.com/doc/1861710/>
- Investigating the influencing factors in the synthesis of silver nanowires using the polyol method and its applications in transparent and conductive coatings | Publisher: Civilica | Indexing Date: 2024-01-31 <https://civilica.com/doc/1899333/>
- Investigating the growth mechanism of silver nanowires and the influencing parameters in their synthesis for use in transparent and conductive coatings | Publisher: Civilica | Indexing Date: 2024-03-30 <https://civilica.com/doc/1943268/>
- Transparent, conductive and electromagnetic interference shielding coatings based on silver nanowires and optimization of its parameters | Publisher: Civilica | Indexing Date: 2024-06-21 <https://civilica.com/doc/2005518/>

✓ **Research papers:**

- Borchloo, A., Shoja-Razavi, R., & Naderi-Samani, H. (2024). Synthesis and characterization of silver nanowires with high aspect ratio for transparent coating applications. *Synthesis and Sintering*, 4(3), 167-190. <https://doi.org/10.53063/synsint.2024.43236>
- Synthesis and Characterization of Silver Nanowires with High Aspect Ratio, Length, and Small Diameter for Transparent Coating Applications \Manuscript Number: MTNANO-D-24-00341\ *materials chemistry and physics journal* \ <https://dx.doi.org/10.2139/ssrn.4811432> \ Current Status: Under Review
- Borchloo, Ali and Shoja-Razavi, Reza and Naderi-Samani, Hamed, Optimizing the Synthesis and Performance of Silver Nanowire-Based Conductive Inks for Transparent and High-Efficiency EMI Shielding Applications. Available at <http://dx.doi.org/10.2139/ssrn.4942659> \ Current Status: Under Review

✓ **Review papers:**

- Silver Nanowires: Synthesis, Transparent Conductive Coatings, and EMI Shielding Applications \ *Synthesis and Sintering journal* \ Current Status: Under Review