Mohammadreza Shojaei

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RESEARCH INTERESTS

Polymer nanocomposites
Rubber compounding
Sustainable development
Machine learning
Extractive metallurgy
Computational materials science and engineering
Nanostructures and microstructures processing and fabrication

EDUCATION

2022   M.Sc.   GPA: 3.5   Sharif University of Technology, Tehran, Iran
2019   B.Sc.   GPA: 3.5   Shahid Bahonar University of Kerman, Kerman, Iran

HONORS AND AWARD

2019   Graduated as top student among material-science and engineering students, Shahid Bahonar University, Kerman, Iran.

WORK EXPERIENCE

2017-2022   Researcher of National Iranian Copper Industries Company
2020-2022   Researcher of Ehya Sepahan Iron Ore Mines

LANGUAGE

Persian (Native)
English (Limited Professional Working Proficiency)

ADDITIONAL ACADEMIC COURSES

Machine Learning   Professor: Najmeh Mansouri, Shahid Bahonar University, Kerman, Iran.

REFEREED PUBLICATIONS

1. **Shojaei, Mohammad Reza,** Gholamreza Pircheraghi, and Amir Alinoori. "Sustainable SBR/silica nanocomposites prepared using high-quality recycled nanosilica from lead-acid battery separators." Journal of Cleaner Production (2022): 133316.

2. **Shojaei, Mohammadreza**, et al. "Investigation of spring back phenomenon in the 316L stainless steel cathode blank based on the changes in electrical resistivity and magnetic properties due to the residual stress and martensite phase formation: an industrial failure." Engineering Failure Analysis 126 (2021): 105473.

3. **Shojaei, Mohammad Reza**, et al. "Investigating the nodulation mechanism of copper cathode based on microscopic approach: As a punch failure factor." Engineering Failure Analysis 133 (2022): 105970.

4. **Shojaei, Mohammdreza**, et al. "Using the group method for the synthesis of copper/ZrO2 nanocomposites to achieve high wear resistance by ball milling and spark plasma sintering." Ceramics International 48.12 (2022): 17576-17588.

5. **Shojaei, Mohammad Reza**, et al. "Study the failure of casted copper anode: the formation of bumps defects on the surface of the anode during casting." Engineering Failure Analysis (2022): 106426.

6. **Shojaei, Mohammdreza**, and Gholam Reza Khayati. "Defined an Optimized Molding for Physical and Mechanical Properties of W–Cu Nanocomposite Through Spark Plasma Sintering Using Gene Expression Programming: The Combination of Artificial Intelligence and Material Science." SN Computer Science 3.1 (2022): 1-16.

7. **Shojaei, M. R**., G. R. Khayati, and A. Hasani. "Utilization of gene expression programming for modeling of mechanical performance of titanium/carbonated hydroxyapatite nanobiocomposites: the combination of artificial intelligence and material science." International Journal of Engineering 34.4 (2021): 948-955.

8. **Shojaei, M. R**., et al. "Removing of Sb and As from electrolyte in copper electrorefining process: a green approach." International Journal of Engineering 34.3 (2021): 700-705.

9. Atefe Hasani, **Mohammd Reza Shojaei,** Gholam Reza Khayati, Evolving application of machine learning in the synthesis of CHA/ZrO2 nanocomposite for the microhardness prediction, (2022).

MANUSCRIPTS IN REVIEW

1. A sustainable approach to replace bleed stream in electrical refining of copper, **Mohammad Reza Shojaei**; Gholam Reza Khayati, Mohammad Javad Korasani, under review in material letters X