

Name: Zohreh Riahi
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Education

BSc.

University: Isfahan University of Technology

Major: Extractive Metallurgy

Thesis: Evaluation of corrosion and tribocorrosion behavior of 316L stainless steel with physical vapor deposited pure Ti coatings

Supervisor: Keyvan Raeissi

Msc.

University: Sharif University of Technology

Major: Extraction of metals

Thesis: Surface modification of metallic implants and improvement of their biological properties in presence of bioactive ceramic nanoparticles

Supervisors: S K Sadrnezhad

PhD

Thesis: Development of modified nanostructures for fabrication of polymer nanocomposite films for controlled atmosphere food packaging

Supervisors: Reza Bagheri, Gholamreza Pircheraghi

Research Experience:

Nanocomposites, Active and intelligent packaging, Food science, Surface engineering, Bio materials, Material characterization

Publications:

- Priyadarshi, R., Riahi, Z., & Rhim, J. W. (2022). Antioxidant pectin/pullulan edible coating incorporated with Vitis vinifera grape seed extract for extending the shelf life of peanuts. *Postharvest Biology and Technology*, 183, 111740.
- Ezati, P., Riahi, Z., & Rhim, J. W. (2022). CMC-based functional film incorporated with copper-doped TiO₂ to prevent banana browning. *Food Hydrocolloids*, 122, 107104.

- Ezati, P., Riahi, Z., & Rhim, J. W. (2021). Carrageenan-based functional films integrated with CuO-doped titanium nanotubes for active food-packaging applications. *ACS Sustainable Chemistry & Engineering*, 9(28), 9300-9307.
- Riahi, Z., Priyadarshi, R., Rhim, J. W., Hong, S. I., Bagheri, R., & Pircheraghi, G. (2021). Titania Nanotubes Decorated with Cu (I) and Cu (II) Oxides: Antibacterial and Ethylene Scavenging Functions To Extend the Shelf Life of Bananas. *ACS Sustainable Chemistry & Engineering*, 9(19), 6832-6840.
- Riahi, Z., Priyadarshi, R., Rhim, J. W., & Bagheri, R. (2021). Gelatin-based functional films integrated with grapefruit seed extract and TiO₂ for active food packaging applications. *Food Hydrocolloids*, 112, 106314.
- Mansoorianfar, M., Khataee, A., Riahi, Z., Shahin, K., Asadnia, M., Razmjou, A., ... & Li, D. (2020). Scalable fabrication of tunable titanium nanotubes via sonoelectrochemical process for biomedical applications. *Ultrasonics sonochemistry*, 64, 104783.
- Riahi, Z., Seyedkhani, S. A., & Sadrnezhaad, S. K. (2020). Electrophoretic encapsulation for slow release of vancomycin from perpendicular TiO₂ nanotubes grown on Ti6Al4V electrodes. *Materials Research Express*, 6(12), 125424.
- Ahmadi, S., Riahi, Z., Eslami, A., & Sadrnezhaad, S. K. (2016). Fabrication mechanism of nanostructured HA/TNTs biomedical coatings: An improvement in nanomechanical and in vitro biological responses. *Journal of Materials Science: Materials in Medicine*, 27(10), 1-15.
- Evaluation of Corrosion and Tribocorrosion Behavior of 316L Stainless Steel with Physical Vapor Deposited Pure Ti Coatings, *International journal of Technical Research & Applications*, 2015.