

Stanford



Farbod Tabesh

Postdoctoral Scholar, Molecular Imaging Program at Stanford

 Curriculum Vitae available Online

Bio

HONORS AND AWARDS

- Student Travel Award, WMIC (2025)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Invited Guest Editor for Special Issue: Nanotechnology and Biomaterials in Targeted Gene Delivery and Cancer Therapy, Journal of Functional Biomaterials (2026 - 2026)
- Abstract Reviewer, World Molecular Imaging Society (2023 - present)
- Organization Committee, Early Detection of Cancer Conference (2024 - 2024)

PROFESSIONAL EDUCATION

- Ph.D., Isfahan University of Technology , Organic-Polymer Chemistry (2019)

STANFORD ADVISORS

- Ramasamy Paulmurugan, Postdoctoral Faculty Sponsor

LINKS

- Google Scholar: <https://scholar.google.com/citations?user=BSyQgj8AAAAJ&hl=en>

Teaching

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Stanford Cancer Imaging Training Program (SCIT) (Fellowship Program)

Publications

PUBLICATIONS

- **Enhancing Ultrasound Molecular Imaging: Toward Real-Time RPCA-Based Filtering to Differentiate Bound and Free Microbubbles.** *IEEE transactions on ultrasonics*
Hashemi, H. S., Hyun, D., Nguyen, N., Baek, J., Natarajan, A., Tabesh, F., Andrzejek, A., Paulmurugan, R., Dahl, J. J.
2025
- **Molecular Ultrasound Imaging of PD-L1 Expression on Cancer Endothelial Cells.** *Ultrasound in medicine & biology*
Sadeghipour, N., Tabesh, F., Natarajan, A., Lutz, A., Paulmurugan, R., Kaffas, A. E.
2025
- **Ips0 nitration in organic synthesis.** *RSC advances*
Sepehrmansourie, H., Zarei, M., Mallakpour, S., Tabesh, F., Zolfigol, M. A.

2025; 15 (29): 23499-23558

- **Synthesis, characterization, and application of a biocompatible gene delivery nanocarrier constructed from gold nanostars and a chitosan-cyclodextrin-poly(ethylene imine) graft polymer** *MATERIALS ADVANCES*
Tabesh, F., Haghverdi, G., Devarakonda, K., Massoud, T. F., Paulmurugan, R.
2024
- **Enhancing Ultrasound Molecular Imaging: RPCA-Based Filtering to Differentiate Tumor-Bound and Free Microbubbles**
Hashemi, H. S., Hyun, D., Baek, J., Natarajan, A., Tabesh, F., Paulmurugan, R., Dahl, J. J., IEEE
IEEE.2024
- **Nondestructive ultrasound molecular imaging based on a neural network approach utilizing post-processed ultrasound images**
Baek, J., Hyun, D., Nataraj, A., Tabesh, F., Paulmurugan, R., Dahl, J. J., IEEE
IEEE.2024
- **Recent advances in magnetic semiconductor ZnFe₂O₄ nanoceramics: History, properties, synthesis, characterization, and applications** *JOURNAL OF SOLID STATE CHEMISTRY*
Tabesh, F., Mallakpour, S., Hussain, C.
2023; 322
- **Synthesis and Evaluation of Clinically Translatable Targeted Microbubbles Using a Microfluidic Device for In Vivo Ultrasound Molecular Imaging.** *International journal of molecular sciences*
Bam, R., Natarajan, A., Tabesh, F., Paulmurugan, R., Dahl, J. J.
2023; 24 (10)
- **Removal of the environmental pollutant methylene blue using bio-nanohydrogel nanocomposite containing tragacanth gum and vitamin C-functionalized carbon nanotube** *POLYMER BULLETIN*
Tabesh, F., Mallakpour, S.
2024; 81 (2): 1513-1527
- **Water decontamination using CaCO₃ nanostructure and its nanocomposites: current advances** *Polymer Bulletin*
Tabesh, F.
2023; 80
- **Potential of tragacanth gum in the industries: a short journey from past to the future** *POLYMER BULLETIN*
Mallakpour, S., Tabesh, F., Hussain, C.
2023; 80 (5): 4643-4662
- **A new trend of using poly(vinyl alcohol) in 3D and 4D printing technologies: Process and applications.** *Advances in colloid and interface science*
Mallakpour, S., Tabesh, F., Hussain, C. M.
2022; 301: 102605
- **Effective adsorption of methylene blue dye from water solution using renewable natural hydrogel bionanocomposite based on tragacanth gum: Linear-nonlinear calculations.** *International journal of biological macromolecules*
Mallakpour, S., Tabesh, F.
2021; 187: 319-324
- **3D and 4D printing: From innovation to evolution.** *Advances in colloid and interface science*
Mallakpour, S., Tabesh, F., Hussain, C. M.
2021; 294: 102482
- **Renewable bionanohydrogels based on tragacanth gum for the adsorption of Pb²⁺: Study of isotherm, kinetic models, and phenomenology** *ENVIRONMENTAL TECHNOLOGY & INNOVATION*
Mallakpour, S., Tabesh, F.
2021; 23
- **Green and plant-based adsorbent from tragacanth gum and carboxyl-functionalized carbon nanotube hydrogel bionanocomposite for the super removal of methylene blue dye.** *International journal of biological macromolecules*
Mallakpour, S., Tabesh, F.
2021; 166: 722-729

- **Metal oxides and biopolymer/metal oxides bionanocomposites as green nanomaterials for heavy metals removal** *Nanotoxicology and Nanoecotoxicology*
Tabesh, F.
2021
- **Natural polymer-based organic-inorganic hybrid nanosorbents** *Natural Polymers-Based Green Adsorbents for Water Treatment*
Tabesh, F.
2021
- **Application of gum polysaccharides nanocomposites in the removal of industrial organic and inorganic pollutants** *Handbook of Polymer Nanocomposites for Industrial Applications*
Tabesh, F.
2021
- **Microwave-assisted synthesis of chiral polymeric materials: Properties and applications** *Green Sustainable Process for Chemical and Environmental Engineering and Science*
Tabesh, F.
2020
- **Tragacanth gum based hydrogel nanocomposites for the adsorption of methylene blue: Comparison of linear and non-linear forms of different adsorption isotherm and kinetics models.** *International journal of biological macromolecules*
Mallakpour, S., Tabesh, F.
2019; 133: 754-766
- **Fabrication Technologies of Layered Double Hydroxide Polymer Nanocomposites** *Layered Double Hydroxide Polymer Nanocomposites*
Tabesh, F.
2019
- **Ultrasonic-assisted manufacturing of new hydrogel nanocomposite biosorbent containing calcium carbonate nanoparticles and tragacanth gum for removal of heavy metal.** *Ultrasonics sonochemistry*
Mallakpour, S., Abdolmaleki, A., Tabesh, F.
2018; 41: 572-581

PRESENTATIONS

- Ultrasound Molecular Imaging of Endothelial PD-L1 to Guide Immune Checkpoint Therapy - The 29th European symposium on Ultrasound Contrast Imaging (2024)
- Ultrasound-Stimulated Microbubble Mediated Modulation of Endothelial Immunogenicity - The 29th European symposium on Ultrasound Contrast Imaging
- Simultaneous whole-body ultrasound contrast imaging: a novel high throughput preclinical platform for targeted molecular imaging studies
- Quantitative methods for molecular ultrasound imaging
- Intranasal Delivery of Therapeutic Genes and Prodrugs to Triple-Negative Breast Cancer Spread of Lungs using Chitosan-poly(ethylene imine) Gold Nanostar Nanocomposite
- Targeted Delivery of Therapeutic Genes to Triple-Negative Breast Cancer Cells using a Polymeric Nanocomposite of Gold Nanostars
- Multi-parametric and 3D Assessment of Contrast and Molecular Ultrasound to Predict Response to anti-PD-L1 Immune Checkpoint Inhibitor - The 29th European symposium on Ultrasound Contrast Imaging (2024)