

## رزومه

### مشخصات فردی و تحصیلی

نام و نام خانوادگی: الهام قلی بگلو

محقق پسا دکتری فدراسیون سرآمدان علمی ایران: دانشکده داروسازی دانشگاه تهران

آخرین مدرک تحصیلی: شیمی آلی، دکتری تخصصی، زنجان، دانشگاه زنجان، روزانه

عنوان رساله دکتری: "طراحی و تهیه حامل های جدید دارویی و حساس به pH بر پایه نانوصفحات گرافن اکسید برای انتقال هدفمند داروها" (نمره ۱۹/۹ با درجه عالی)

محل اخذ مدرک کارشناسی ارشد: شیمی آلی، تهران، پژوهشگاه شیمی و مهندسی شیمی ایران، روزانه

عنوان پایانامه کارشناسی ارشد: "سنتز دی تیو کاربامات ها و آمیدین ها در حلال های سبز" (نمره ۱۹/۹ با درجه عالی)

محل اخذ مدرک کارشناسی: شیمی محض، تهران، دانشگاه شهید بهشتی، روزانه

### لیست مقالات چاپ شده در مجلات علمی ISI

1. pH-Responsive chitosan-modified gadolinium oxide nanoparticles delivering 5-aminolevulinic acid: A dual cellular and metabolic T1-T2\* contrast agent for glioblastoma brain tumors detection. **Journal of Molecular Liquids** 368 (2022): 120628.
2. Folic acid decorated magnetic nanosponge: An efficient nanosystem for targeted curcumin delivery and magnetic resonance imaging. **Journal of colloid and interface science** 556 (2019): 128-139.
3. Improved curcumin loading, release, solubility and toxicity by tuning the molar ratio of cross-linker to  $\beta$ -cyclodextrin. **Carbohydrate polymers** 213 (2019): 70-78.
4. A biocompatible theranostic nanoplatform based on magnetic gadolinium-chelated polycyclodextrin: in vitro and in vivo studies. **Carbohydrate Polymers** 254 (2021): 117262.
5. Tannic acid-mediated synthesis of flower-like mesoporous MnO<sub>2</sub> nanostructures as T1-T2 dual-modal MRI contrast agents and dual-enzyme mimetic agents. **Scientific Reports** 13, no. 1 (2023): 14606.

6. Carnosine-graphene oxide conjugates decorated with hydroxyapatite as promising nanocarrier for ICG loading with enhanced antibacterial effects in photodynamic therapy against *Streptococcus mutans*. **Journal of Photochemistry and Photobiology B: Biology** 181 (2018): 14-22.
7. In vitro and in vivo characteristics of doxorubicin-loaded cyclodextrine-based polyester modified gadolinium oxide nanoparticles: a versatile targeted theranostic system for tumour chemotherapy and molecular resonance imaging. **Journal of drug targeting** 28, no. 5 (2020): 533-546.
8. Gadolinium (III) oxide nanoparticles coated with folic acid-functionalized poly ( $\beta$ -cyclodextrin-co-pentetic acid) as a biocompatible targeted nano-contrast agent for cancer diagnostic: in vitro and in vivo studies. **Magnetic Resonance Materials in Physics, Biology and Medicine** 32 (2019): 487-500.
9. Optimization of immobilization conditions of *Bacillus atrophaeus* FSHM2 lipase on maleic copolymer coated amine-modified graphene oxide nanosheets and its application for valeric acid esterification. **International Journal of Biological Macromolecules** 162 (2020): 1790-1806.
10. Theranostic  $\alpha$ -lactalbumin-polymer-based nanocomposite as a drug delivery carrier for cancer therapy. **ACS Biomaterials Science & Engineering** 5, no. 10 (2019): 5189-5208.
11. Endotoxin removal from aqueous solutions with dimethylamine-functionalized graphene oxide: modeling study and optimization of adsorption parameters. **Journal of hazardous materials** 368 (2019): 163-177.
12. Polyvinyl alcohol-graphene oxide nanocomposites: evaluation of flame-retardancy, thermal and mechanical properties. **Journal of Macromolecular Science, Part A** 57, no. 1 (2020): 17-24.
13. Selective removal of mercury (II) from water using a 2, 2-dithiodisalicyclic acid-functionalized graphene oxide nanocomposite: Kinetic, thermodynamic, and reusability studies. **Journal of Molecular Liquids** 265 (2018): 189-198.
14. Synthesis, characterization and antifungal activity of a novel formulated nanocomposite containing Indolicidin and Graphene oxide against disseminated candidiasis. **Journal de Mycologie Médicale** 28, no. 4 (2018): 628-636.
15. Evaluation of a novel biocompatible magnetic nanomedicine based on beta-cyclodextrin, loaded doxorubicin-curcumin for overcoming chemoresistance in breast cancer. **Artificial cells, nanomedicine, and biotechnology** 46, no. sup2 (2018): 207-216.

16. Lymph Node Metastases Detection Using Gd<sub>2</sub>O<sub>3</sub>@PCD as Novel Multifunctional Contrast Imaging Agent in Metabolic Magnetic Resonance Molecular Imaging. **Contrast Media & Molecular Imaging** 2022.(۲۰۲۲)
17. Beta-carotene/cyclodextrin-based inclusion complex: Improved loading, solubility, stability, and cytotoxicity. **Journal of inclusion phenomena and macrocyclic chemistry** 102, no. 1-2 (2022): 55-64.
18. Antibacterial performance of curcumin loaded polycyclodextrin-coated zinc oxide nanomaterials in photodynamic therapy against *Enterococcus faecalis*.(۲۰۲۲) .
19. The effect of indocyanine green loaded on a novel nano-graphene oxide for high performance of photodynamic therapy against *Enterococcus faecalis*. **Photodiagnosis and photodynamic therapy** 20 (2017): 148-153.
20. Glucosamine conjugated gadolinium (III) oxide nanoparticles as a novel targeted contrast agent for cancer diagnosis in MRI. **Journal of Biomedical Physics & Engineering** 10, no. 1 (2020): 25.
21. A New Theranostic System Based on Gd<sub>2</sub>O<sub>3</sub> NPs coated Polycyclodextrin Functionalized Glucose for Molecular Magnetic Resonance Imaging (MMRI). *Iranian Journal of Medical Physics* 15, no. Special Issue-12th. **Iranian Congress of Medical Physics** (2018): 228-228.
22. Comparison of *Moringa stenopetala* seed extract as a clean coagulant with Alum and *Moringa stenopetala*-Alum hybrid coagulant to remove direct dye from Textile Wastewater. **Environmental Science and Pollution Research** 23 (2016): 16396-16405.
23. Reactive dye adsorption from aqueous solution on HPEI-modified Fe<sub>3</sub>O<sub>4</sub> nanoparticle as a superadsorbent: characterization, modeling, and optimization. **Journal of Polymers and the Environment** 26 (2018): 3470-3483.
24. Selective removal of mercury (II) from water using a 2, 2-dithiodisalicylic acid-functionalized graphene oxide nanocomposite: Kinetic, thermodynamic, and reusability studies. **Journal of Molecular Liquids** 265 (2018): 189-198.
25. Heck and oxidative boron Heck reactions employing Pd (II) supported amphiphilized polyethyleneimine-functionalized MCM-41 (MCM-41@aPEI-Pd) as an efficient and recyclable nanocatalyst. **Applied Organometallic Chemistry** 32, no. 3 (2018): e4123.
26. Modeling mercury (II) removal at ultra-low levels from aqueous solution using graphene oxide functionalized with magnetic nanoparticles: optimization, kinetics, and isotherm studies. **Desalination and Water Treatment** 83 (2017): 144-158.

27. Ultrasound mediated efficient ring opening of epoxides by in situ generated dithiocarbamates in green reaction media. **Comptes Rendus Chimie** 16, no. 5 (2013): 412-418.
28. Response surface modeling of lead (II) removal by graphene oxide-Fe<sub>3</sub>O<sub>4</sub> nanocomposite using central composite design. **Journal of environmental health science and engineering** 14 (2016): 1-14.
29. A highly efficient synthesis of dithiocarbamates in green reaction media. **RSC advances** 2, no. 19 (2012): 7413-7416.
30. Green procedure for the synthesis of bis (indolyl) methanes in water. **Scientia Iranica** 19, no. 3 (2012): 574-578.
31. An efficient synthesis of dithiocarbamates under ultrasound irradiation in water. **Monatshefte für Chemie-Chemical Monthly** 143 (2012): 1171-1174.
32. Deep eutectic solvent promoted highly efficient synthesis of N, N'-diarylamidines and formamides. **Comptes Rendus Chimie** 15, no. 9 (2012): 768-773.

### لیست مقالات ارائه شده در سمینار و کنگره‌های داخلی و بین‌المللی

- ICG supported on carnosine and hydroxyapatite functionalized graphene oxide: a novel photosensitizer in photodynamic therapy against *Streptococcus mutans*, 5<sup>th</sup> *International Conference of Iran Chemistry, Chemical Engineering and Nano, Tehran, Iran 2018*.
- Novel formulated nanocomposite containing Indolicidin and Graphene Oxide against *Candida albicans*: in vitro and in vivo study, *Conference on Medical Mycology, Tehran, 2018*.
- Preparation and evaluation of essential oil-loaded chitosan-based nano particles as food additives, *International Congress of Laboratory and Clinic, Tehran, Iran 2017*.
- Synthesis of nano-sized graphene oxide coated with coumarin derivatives as therapeutic agents for edema, 2<sup>nd</sup> *Iranian Nanomedicine Congress, Zanjan, 2016*.
- Superparamagnetic graphene oxide nanocomposites as carriers for the hydrophobic anticancer drug and MRI contrast agent, 1<sup>st</sup> *Congress of Chemical Biotechnology, Tehran, 2016*.

- Preparation and characterization of novel surface modified super paramagnetic iron oxide nanocomposite for bio-magnetically targeted therapy, *1<sup>st</sup> Congress of Chemical Biotechnology, Tehran, 2016.*
- Preparation and evaluation of new magnetic nanocomposit for smart targeted drug delivery in the breast cancer therapy, *11<sup>th</sup> International Breast Cancer Congress. Tehran, Iran 2016.*
- Modeling of mercury (II) ions removal in ultra- low levels from aqueous solotion using graphen oxide functionalized with magnetic nanopaticles: optimization, kinetics, and isotherm studies, *1<sup>st</sup> International and 19<sup>th</sup> national Conference on Environmental Health. Tehran, 2016.*
- Design and development of new drug carriers based on pH-sensitive graphene oxide nanosheets for the delivery of targeted drugs, *14<sup>th</sup> Iranian Pharmaceutical Sciences Congress, Tehran, 2015.*
- A simple synthesis of amidines under ultrasound irradiation, *15<sup>th</sup> Iranian Chemistry Congress, Hamedan, 2011.*
- Iron-Catalyzed green and practical N-formylation of Amines under solvent free, *17<sup>th</sup> Iranian Seminar of Organic Chemistry, Mazandaran, 2010.*

## ثبت اختراع

- Contrast and metabolic nanocomplex agent instead traditional radiopharmaceutical in molecular PET imaging. *Iranian Patent Number: 99631, 04/11/2019.*

## سوابق کار

- استاد مدعو دانشگاه آزاد اسلامی واحد پرند ۱۳۹۱-۱۳۹۵
- کارشناس واحد تحقیقات و کنترل کیفیت شرکت نانوفناوران نارین طب ۱۴۰۱-۱۴۰۲
- مدیر واحد تحقیقات شرکت نانوفناوران نارین طب ۱۴۰۲-۱۴۰۳
- عضو هیات علمی سازمان پژوهش های علمی و صنعتی ایران تاکنون-۱۴۰۳

## زمینه های تحقیقاتی

- نانو بیومواد
- سامانه های دارورسانی هوشمند
- سیستم های تشخیص و درمانی
- فتودینامیک تراپی ضد میکروبی
- ترمیم زخم و زخم پوش ها
- نانوزایم ها
- شیمی سبز

پست الکترونیکی: [elhamgholibegloo@yahoo.com](mailto:elhamgholibegloo@yahoo.com), [e.begloo@irost.ir](mailto:e.begloo@irost.ir)