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Employment Information

Faculty/Department	Position/Rank	Employment Type	Cooperation Type	Grade
(not set)	(not set)	On Contract	Full Time	3

Papers in Conferences

1. مریم حق جو و سیما پناهی راد، توسعه گردشگری روستایی، و درآمدزایی: تجربه های جهانی، مقایسه با ایران و راهبردهای سیاست گذاری برای توسعه پایدار، همایش ملی گردشگری روستایی با محوریت روستاهای جهانی گردشگری، تبریز، ۱۴۰۴، ۰۳ ۲۰.
2. مطهره مصلحی و سیما پناهی راد، تاثیر تغییر کاربری اراضی در افزایش دمای سطح زمین در مناطق پر جمعیت شهری، اولین کنفرانس بین المللی شهرسازی، معماری، عمران و محیط زیست، وولفسبورگ آلمان، ۱۶ ۱۲ ۱۴۰۳.
3. سحر شاه ورن علمداری- سیما پناهی راد، کشاورزی شهری، راهکاری پایدار برای تامین امنیت غذایی در جوامع شهری، دهمین همایش بین المللی علوم محیط زیست، صنایع غذایی، کشاورزی و منابع طبیعی، ۱۵ ۱۰ ۱۴۰۳.
4. Maryam Mosapoor , Sima Panahirad. The process of urban green space design with an approach to plant cultivation standards and landscape management, 16th International Conference on Agriculture Sciences, Environment, Urban and Rural Development, Tbilisi-Georgia, ۲۰۲۵, ۱.۱۷.
5. وحیده عبدالعلی پور و سیما پناهی راد، مدیریت شهری با رویکرد جامعه سبز، هشتمین کنگره سالانه بین المللی توسعه کشاورزی، منابع طبیعی، محیط زیست و گردشگری ایران، تبریز، ۲۲/۱۱/۲۵-۱۴۰۳.
6. مریم حق جو و سیما پناهی راد، بررسی تعیین کننده های تمایل به پرداخت بازدیدکنندگان برای پارک بزرگ ولیعصر تبریز، ایده ها و راهکارهای نوین در توسعه پایدار حوضه آبریز دریاچه ارومیه، تبریز، ۰۷/۰۶/۱۴۰۳.

Papers in Journals

1. M Amerian, G Gohari, SJ Honarmand, S Panahirad, G Ntatsi. Foliar application of allantoin and serotonin mitigates salinity stress in bitter melon (*Momordica charantia* L.). Scientific Reports, ۳۰.۵.۲۰۲۶, JCR Q1.
2. Masoomeh Amerian , Gholamreza Gohari , Sima Panahirad , Georgia Ntatsi, Coordinated N metabolism and NO signaling underlie allantoin-citrulline synergy in salt-stressed cucumber, BMC Plant Biology, 18.2.2026, JCR Q1.
3. Chitosan-proline nanoparticles improve *Mentha spicata* L. tolerance against CuO nanoparticle toxicity, International Journal of Biological Macromolecules, 2025 11 1, JCR Q1.
4. Maryam Jamali · Alireza Ghanbari · Asghar Estaji · Esmaeil Chamani · Amir Mohammad Naji · Sima Panahirad · Gholamreza Ghohari · Iman Mirmazloun, Exogenous phenylalanine and ultrasound

treatments improved Taxol biosynthesis in hazelnut cell culture, *Plant Cell, Tissue and Organ Culture (PCTOC)*, 2025 10 20, JCR Q1.

5. Gholamreza Gohari, Alexandros Spanos, Andreas Ioannou, Ioanna Efstathiou, Sima Panahirad, Zsuzsanna Kolbert, Vasileios Fotopoulos, Seed Priming Approaches for Climate-Resilient Agriculture, *Journal of Experimental Botany*, 2025 10 20, JCR Q1.

6. Akram Rahbari, Behrooz Esmailpour, Rasoul Azarmi, Hamideh Fatemi, Hassan Maleki Lajayer, Sima Panahirad, Gholamreza Gohari, Federico Vita, Symbiotic Fungus *Serendipita indica* as a Natural Bioenhancer Against Cadmium Toxicity in Chinese Cabbage, *Plants*, 2025 9 4, JCR Q1.

7. Sima Panahirad, Mohammadreza Dadpour, Muhittin Kulak, Federico Vita, Gholamreza Gohari, Vasileios Fotopoulos, Selenium-coated chitosan nanoparticles (CTS Se NPs) improve grapevine (*Vitis vinifera* cv. Sultana) performance grown under lead (Pb) toxicity, *BMC Plant Biology*, 2025 09 01, JCR Q1.

8. Zeinab Mohammadi, Seyed Morteza Zahedi, Sima Panahirad, Gholamreza Gohari, Alleviation of the effect of salinity on pomegranate seedlings by priming foliar spray of chitosan-silicon nanoparticles (CTS SiO₂ NPs), *BMC Plant Biology*, 2025.08.25, JCR Q1.

9. Chrystalla Antoniou, Eleni Panagi, Egli C. Georgiadou, Gholamreza Gohari, Sima Panahirad, Nikolaos Theodorou, George A. Manganaris, Stefanos Koundouras, Vasileios Fotopoulos, The effect of recurring drought conditions on anthocyanins biosynthesis of 'Syrah' grapes: a physiological, biochemical, and molecular approach, *South African Journal of Botany*, pp. 226, 16 05 2025, JCR-Q2.

10. Masoud Chamani, Mohammad Reza Dadpour, Zahra Dehghanian, Sima Panahi Rad, Ali Chenari Bouket, Tomasz Oszako and Sumit Kumar, From Digestion to Detoxification: Exploring Plant Metabolite Impacts on Insect Enzyme Systems for Enhanced Pest Control, *insects*, 8 4 2025, JCR Q1.

11. زانیار صمدی تودار، سیما پناهی راد، دیدگاه نوجوانان نسبت به سلامت روان در پارک های شهری (نمونه موردی پارک ایلی گولی تبریز)، فصلنامه مطالعات توسعه پایدار شهری و منطقه ای، ۱۴۰۳/۱۲/۷

12. زانیار صمدی تودار، سیده سارینا شجره، سیما پناهی راد، دیدگاه دختران جوان نسبت به احساس تنهایی در پارکهای شهر سنندج در جهت ارتقاء کیفیت زندگی، مطالعات توسعه پایدار شهری و منطقه ای، شماره صفحات ۱۸۳، ۱۴۰۳/۱۱/۱-۱۷۴

13. Maryam Haghmadad Milani, Asghar Mohammadi, Sima Panahirad, Habib Farhadi, Parisa Labib, Muhittin Kulak, Gholamreza Gohari, Vasileios Fotopoulos, and Federico Vita, Cerium Oxide Nanoparticles (CeO₂ NPs) Enhance Salt Tolerance in Spearmint (*Mentha spicata* L.) by Boosting the Antioxidant System and Increasing Essential Oil Composition, *plants*, No. 13, pp. 2934, 2024.10.30, JCR Q1.

14. Gholamreza Gohari, Muhittin Kulak, Egli C. Georgiadou, Andreas Ioannou, Sima Panahirad, Roghayeh Mahmoudi, Alexandros Spanos, Mehmet Zehi Kocak, Georgia Ntatsi, Vasileios Fotopoulos, Enhancing salinity stress tolerance in corn salad (*Valerianella locusta* L.) through melatonin or salicylic acid-functionalized chitosan seed priming: A smart delivery approach., *Plant Stress*, 2024.09, JCR.

15. Sima Panahirad, Mohammadreza Dadpour, Gholamreza Gohari, Vasileios Fotopoulos, Simultaneous application of titanium dioxide (TiO₂) and zinc oxide (ZnO) nanoparticles ameliorates lead (Pb) stress effects in medicinal plant *Echinacea purpurea* (L.) Moench, *Plant Stress*, pp. 100546, 1.8.2024, JCR-Q1.

16. Zahra Mahdavi, Behrouz Esmailpour, Rasul Azarmi, Sima Panahirad, Georgia Ntatsi, Gholamreza Gohari and Vasileios Fotopoulos, Fish Waste—A Novel Bio-Fertilizer for Stevia (*Stevia rebaudiana* Bertoni) under Salinity-Induced Stress, *plants*, Vol. 13, pp. 1909, 11 July 2024.

17. علیرضا مطلبی آذر، رقیه قاسمی، سیما پناهی راد، امین جهانیان، اثر نانوکامپوزیت پرولین پوشش دار شده با کیتوزان و تنش شوری ملایم بر ریزغدهزایی درون شیشه ای سیب زمینی رقم آگریا، تولیدات گیاهی، ۱۴۰۳/۱۰/۱

18. S Panahirad, MR Morshedloo, S Ali, C Hano, M Kulak, Secondary metabolites and their potential roles in plant tolerance against abiotic and biotic stress, *Plant Stress*, No. 100292, 2023.

19. 1. Panahirad, S., Gohari, G., Mahdavinia, G., Jaffari, H., Kulak, M., Fotopoulos, V., Alcazar, R., Dadpour, M.R, Foliar application of chitosan-putrescine nanoparticles (CTS-Put NPs) alleviates cadmium toxicity in grapevine (*Vitis vinifera* L.) cv. Sultana: modulation of antioxidant and

photosynthetic status.,*BMC Plant Biology*,2023.

20. 2. Panahirad, S., Dadpour, M.R., Gohari, G., Akbari, A., Mahdavinia, G., Jaffari, H., Kulak, M., Alcazar, R., Fotopoulos, V., Putrescine-functionalized carbon quantum dot (put-CQD) nanoparticle: A promising stress-protecting agent against cadmium stress in grapevine (*Vitis vinifera* cv. Sultana),*Plant Physiology and Biochemistry*,2023.
21. 3. Gohari, G., Panahirad, S., Mohammadi, A., Kulak, M., Dadpour, M.R., Lighvan, Z.M., Sharifi, S., Eftekhari, & Sis, B., Szafert, S., Fotopoulos, V., Akbari, A., Characterization of Octa-aminopropyl polyhedral oligomeric silsesquioxanes (OA-POSS) nanoparticles and their effect on sweet basil (*Ocimum basilicum* L.) response to salinity stress,*Plant Physiology and Biochemistry*,2023.
22. 4. Gohari, G., Farhadi, H., Panahirad, S., Zareei, E., Labib, P., Jaffari, H., Mahdavinia, G., Hasanpouraghdam, M.B., Ioannou, A., Kulak, M., Fotopoulos, V., Mitigation of salinity impact in spearmint plants through the application of engineered chitosan-melatonin nanoparticles. *International Journal of Biological Macromolecules*,*International Journal of Biological Macromolecules*,2023.
23. 5. Khalili, N., Oraei, M., Gohari, G., Panahirad, S., Nourafcan, H., Hano, C., Chitosan-enriched salicylic acid nanoparticles enhanced anthocyanin content in grape (*Vitis vinifera* L. cv. Red Sultana) berries.,*Polymers*,2022.
24. 6. Sheikhalipour, M., Gohari, G., Esmailpour, B., Panahirad, S., Haghmadad Milani, M., Kulak, M., Janda, T., Melatonin and TiO₂ NPs application-induced changes in growth, photosynthesis, antioxidant enzymes activities and secondary metabolites in stevia (*Stevia rebaudiana* Bertoni) under drought stress conditions.,*Journal of Plant Growth Regulation*,2022.
25. 7. Gohari, G., Zareei, E., Kulak, M., Labib, P., Mahmoudi, R., Panahirad, S., Jaffari, H., Mahdavinia, G., Juárez, & Maldonado, A., Lorenzo, J.M., Improving the berry quality and antioxidant potential of Flame Seedless grapes by foliar application of chitosan–phenylalanine nanocomposites (CS–Phe NCs),*Nanomaterials*,2021.
26. 8. Azimi, F., Oraei, M., Gohari, G., Panahirad, S., Farmarzi, A., Chitosan-selenium nanoparticles (Cs–Se NPs) modulate the photosynthesis parameters, antioxidant enzymes activities and essential oils in *Dracocephalum moldavica* L. under cadmium toxicity stress.,*Plant Physiology and Biochemistry*,2021.
27. 9. Gohari, G., Zareei, E., Rostami, H., Panahirad, S., Kulak, M., Farhadi, H., Amini, M., del Carmen Martinez, & Ballesta, M., Fotopoulos, V., Protective effects of cerium oxide nanoparticles in grapevine (*Vitis vinifera* L.) cv. Flame Seedless under salt stress conditions.,*Ecotoxicology and Environmental Safety*,2021.
28. 10. Gohari, G., Panahirad, S., Sepehri, N., Akbari, A., Jaffari, H., Zahedi., S.M., Dadpour, M.R., Fotopoulos, V., Enhanced tolerance to salinity stress in grapevine plant through application of carbon quantum dots functionalized by proline.,*Environmental Science and Pollution Research*,2021.
29. 11. Gohari, G., Panahirad, S., Sadeghi, M., Akbari, A., Zareei, E., Zahedi., S.M., Bahrami, M.K., Fotopoulos, V., Putrescine-functionalized carbon quantum dots nanoparticles (Put-CQD) effectively prime grapevine (*Vitis vinefera* cv., Sultana) against salt stress.,*BMC Plant Biology*,2021.
30. 12. Mohammadi, M.H.M., Panahirad, S., Navai, A., Bahrami, M.K., Kulak, M., Gohari, G., Cerium oxide nanoparticles (CeO₂ NPs) improve growth parameters and antioxidant defense system in Moldavian balm (*Dracocephalum moldavica* L.) under salinity stress.,*Plant Stress*,2021.
31. 13. Panahirad, S., Dadpour, M.R., Peighamberdoust, S.H., Soltanzadeh, M., Gullen, B., Alirezalou, K., Lorenzo, J.M., Application of carboxymethyl cellulose- and pectin- based active edible coatings in preservation of fruits and vegetables: A review.,*Trends in Food Science and Technology*,2021.
32. 14. Antoniou, C., Zarza, X., Gohari, G., Panahirad, S., Filippou, P., Tiburcio, A.F., Fotopoulos, V., Involvement of Polyamine metabolism in the response of *Medicago truncatula* genotypes to salt stress.,*Plants*,2021.
33. 15. Panahirad, S., Naghshiband, & Hassani, R., Bergin, S., Katam, R., Mahna, N., Improvement of postharvest quality of plum (*Prunus domestica* L.) using polysaccharide-based edible coatings.,*Plants*,2020.

34. 16. Panahirad, S., Naghshiband, & Hassani, R., Mahna, N., Pectin-based edible coating preserves antioxidative capacity of plum fruit during shelf life., *Food Science and Technology International*, 2020.
35. 17. Ioannou, A., Gohari, G., Papaphilippou, P., Panahirad, S., Akbari, A., Dadpour, M.R., Krasia, & Christoforou, T., Fotopoulos, V., Advanced nanomaterials in agriculture under a changing climate: The way to the future?, *Environmental and Experimental Botany*, 2020.
36. 18. Gohari, G., Safai, F., Panahirad, S., Akbari, A., Rasouli, F., Dadpour, M.R., Fotopoulos, V., Modified multiwall carbon nanotubes display either phytotoxic or growth promoting and stress protecting activity in *Ocimum basilicum* L. in a concentration-dependent manner., *Chemosphere*, 2020.
37. 19. Gohari, G., Mohammadi, A., Akbari, A., Panahirad, S., Dadpour, M.R., Fotopoulos, V., Kimura, S., Titanium dioxide nanoparticles (TiO₂ NPs) promote growth and ameliorate salinity stress effects on essential oil profile and biochemical attributes of *Dracocephalum moldavica*., *Scientific Reports*, 2020.
38. 20. Gohari, G., Alavi, Z., Esfandiari, E., Panahirad, S., Hajihoseinlou, S. and Fotopoulos, V., Interaction between hydrogen peroxide and sodium nitroprusside following chemical priming of *Ocimum basilicum* L. against salt stress., *Physiologia Plantarum*, 2020.
39. 21. Panahirad, S., Naghshiband, Hassani, R., Zaare, Nahandi, F., Ghanbarzadeh, B., Mahna, N., Shelf life quality of plum (*Prunus domestica* L.) improves with carboxymethylcellulose- based edible coating., *HortScience*, 2019.
40. 22. Oraei, M., Gohari, G., Panahirad, S., Zareei, E. and Zaare, & Nahandi, F., Effect of salicylic acid foliar application on *Vitis vinifera* L. cv. Sultana under salinity stress, *Acta Scientiarum Polonorum Hortorum Cultus*, 2019.
41. 23. غلامرضا گوهری، سیما فریدونی، سیما پناهی راد، نسرین سپهری، محمدرضا دادپور، اثرات محلول پاشی فنیل آلانین ۲۰۲۰ روی برخی شاخص های غذایی حبه انگور رقم حسینی، پژوهش های صنایع غذایی، ۲۰۲۰.
42. 24. Oraei, M., Panahirad, S., Zaare, & Nahandi, F. and Gohari, G., Pre-veraison treatment of salicylic acid to enhance anthocyanin content of grape (*Vitis vinifera* L.) berries, *Journal of the Science of Food and Agriculture*, 2019.
43. 29. Panahirad, S., Mahna, N., Naghshiband, Hassani, R., Ghanbarzadeh, B. and Zaare, Nahandi, F., Plum shelf life enhancement by edible coating based on pectin and carboxymethyl cellulose., *Journal of Biodiversity and Environmental Sciences (JBES)*, 2015.
44. 30. Panahirad, S., Zaare, Nahandi, F., Mohammadi, N., Alizadeh, Saletch, S. and Safaie, N., Effects of salicylic acid on *Aspergillus flavus* infection and aflatoxin B1 accumulation in pistachio (*Pistacia vera* L.) fruit., *Journal of the Science of Food and Agriculture*, 2014.
45. 31. Panahirad, S., Zaare, Nahandi, F., Safaralizadeh, R. and Alizadeh, Saletch, S., Postharvest control of *Rhizopus stolonifer* in peach (*Prunus persica* cv. Batsch) fruit using salicylic acid., *Journal of Food Safety*, 2012.
46. 32. Naghiloo, S., Dadpour, M.R., Peighambaroust, S.H., Panahirad, S., Aliakbari, M. and Movafeghi, A., Comparison of floral ontogeny in wild type and double-flowered phenotypes of *Syringa vulgaris* L. (*Oleaceae*)., *Scientia Horticulturae*, 2011.