

Dear Tolgahan ÖZER

Submission Type: Verbal

Topic: Genetics

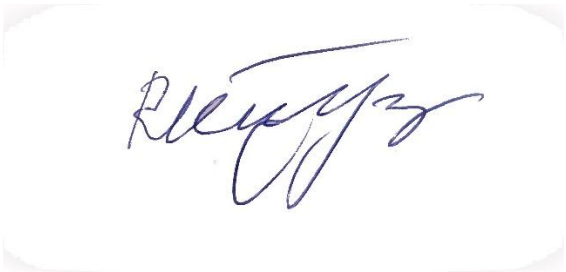
I would like to confirm that your submission entitled “Genotoxic Effects of Fe_2O_3 Nanoparticles Used in Various Fields and Environment" has been accepted for an Oral Presentation following a double-blind process in SEAB 2021, will be conducted online, July 01-03, 2021

Please conform to the deadlines given on the conference website for the registration related matters. You can check the session you will be presenting from the conference programme to be announced on the website soon.

Please do not hesitate to contact us should you require further information and/or guidance.

Yours Sincerely,

Prof. Dr. Ramazan MAMMADOV



SEAB2021

www.seab2021.mu.edu.tr

The 5th Symposium on EuroAsian Biodiversity

the 5th international symposium on euroasian biodiversity



JULY 1-3

2021 Almata **KAZAKHSTAN**

Muğla **TURKEY**

Abstract eBook

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About the Symposium

The 5th Symposium on EuroAsian Biodiversity (SEAB-2021) will be organized by Al-Farabi Kazakh National University, KAZAKHSTAN, and Muğla Sıtkı Koçman University, TURKEY, in collaboration with other universities and institutes from seven different countries, on July 01-03, 2021. SEAB-2021 will be conducted online due to COVID-19 pandemia.

SEAB is one of the largest symposiums that gets together of scientists, conservationists, environmentalists, civil society groups and local communities, a platform to discuss the current status of biodiversity in EuroAsia, an inclusive colloquium to forward strategies and policies to conserve the rich biodiversity heritage of the area.

It is expected that we will have colleagues from related countries for this conference that will represent valuable scientific presentations. During the SEAB-2021, we will have keynote speeches, paper and poster presentations.

SEAB-2021 will provide a scientific platform for conservation leaders, thinkers, and practitioners, scientists, natural resource managers, and environmental consultants to planners, environmental advocates, and corporate and public policy-makers around the EuroAsia to exchange knowledge, discuss issues, share innovations, and network.

Partners

- Muğla Sıtkı Koçman University, Department of Molecular Biology and Genetics; Department of Biology; Department of Chemistry, Muğla, **Turkey**
- Faculty of Biology and Biotechnology, Al-Farabi Kazakh National University & Institute of Plant Biology and Biotechnology, Science Committee of Ministry of Education and Science, **Republic of Kazakhstan**
- Azerbaijan National Academy of Science, Institute of Dendrology Mardakan, Baku, **Azerbaijan**
- Institute of Cell Biology and Genetic Engineering, NASU, (Kyiv, Ukraine) & Taras Shevchenko National University of Kiev, **Ukraine**
- The Georgian Academy of Agricultural Sciences, Tbilisi, **Georgia**
- Russian State Agrarian University, Faculty Agronomy and Biotechnology, Department of Genetics, Biotechnology, Plant Breeding and Seed, Moscow, **Russia**
- Belarus State University, Faculty of Biology, Minsk, **Belarus**

Symposium Topics

Animal Biodiversity
Artificial Intelligence
Biochemical Diversity of Life
Biodiversity and Conservation
Biodiversity and Education
Biodiversity and Food Security
Biogeography and Biodiversity
Bioinvasion and Biodiversity
Bioremediation
Biotechnological Application of Biodiversity
COVID 19
Ecotourism
Environmental Toxicology and Biodiversity
Forest Ecosystem and Biodiversity
Genetically Modified Organisms and Biodiversity
Genetic Resources and Biodiversity
Global Health Disease and Biodiversity
Green Energy Technology and Biodiversity
Impact of Climate Change and Biodiversity
Marine & Freshwater Biodiversity
Microbial Biodiversity
Plant Biodiversity
Post Genomic Technologies and Biodiversity
Renewable and Sustainable Biodiversity
Soil Biodiversity
Urban Biodiversity
Wild Life Biodiversity

Hall C Muğla U.	Chairs: Prof. Dr. M. Emin DURU, Assoc. Prof. Dr. Gülsen Tel ÇAYAN
13^{00}-13^{15}	**Tolgahan ÖZER:** Genotoxic Effects of Fe2O3 Nanoparticles Used in Various Fields and Environment. tolgahanozr@gmail.com
13^{15}-13^{30}	**Darina SOKOLOVA:** Connection between epigenetic polymorphism and resistance of cultural cereals to biotic and abiotic stresses. dasokolova88@gmail.com
13^{30}-13^{45}	**Doğan SÖZBİLEN:** Gaining insights into the reproductive behaviour of Caretta caretta. arzukaska@gmail.com
13^{45}-14^{00}	**Moldir YERMAGAMBETOVA:** Genetic structure analysis of Juniperus seravshanica Kom. using polymorphic microsatellite markers. ermaganbetova.moldir@bk.ru
14^{00}-14^{15}	**Ersin DOĞAÇ:** Determination of Seasonal Changes of Insecticide Resistance Alleles in Anopheles sacharovi Populations in Turkey. ersindogac@mu.edu.tr

Hall D Muğla U.	Chairs: Prof. Dr. Ömür BAYSAL, Assoc. Prof. Dr. Daniela GIANNETTO
13^{00}-13^{15}	**Sevan AĞDAMAR:** Invasion alert: Range extension of the eastern mosquitofish (Gambusia holbrooki Girard, 1859) in Karaburun Peninsula (İzmir, Turkey). sevanagdamar@comu.edu.tr
13^{15}-13^{30}	**Ineta SALMANE:** Soil mesofauna in the city habitats, with special reference to Mesostigmata mites. chuskauss@yahoo.com
13^{30}-13^{45}	**Tubukhanim GASİMZADE:** Value of winter pasturesof the Shırvan regions of Azerbaijan. nushana_kasimova@yahoo.com
13^{45}-14^{00}	**Mustafa CERİTOĞLU:** Role of Microbial Diversity and Priming Time on Effectiveness of Bio Priming in Lentil. ceritoglu@siirt.edu.tr
14^{00}-14^{15}	**Tofik MAMMADOV:** Analysis of Absheron Flora. aliyaribragimov@mail.ru

Genotoxic Effects of Fe_2O_3 Nanoparticles Used in Various Fields and Environment

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Abstract

Recently, using of nanoparticles (NPs) has remarkably increased especially in the fields of materials science, electronic, cosmetic, and therapeutics because of their unique properties. Among many classes, iron (III) oxide (Fe_2O_3) NPs are getting more attention for potential use with biological systems especially in biomedical applications due to their robust construction and magnetic properties, ease of production, and ease of use as homogeneous dispersion in water. They are also used to degrade a wide range of organic/inorganic pollutants in the treatment of wastewater and improve the agronomic features of crops. Although widespread use and releasing of Fe_2O_3 NPs into the environment increases the risk of unintended exposure of living things, there is still a clear lack of knowledge about the potentially toxic and specifically genotoxic effects of these particles on animals, humans, and plant health so, all the environment. While some of the previous studies revealed the non-genotoxic effect of Fe_2O_3 NPs, some others declared the generation of genetic damages following treatment with these particles. Besides, the genotoxicity of these particles was attributed to their physicochemical properties and uptake. This short review briefly provides both the application areas and genotoxic effects of inorganic Fe_2O_3 NPs on some terrestrial and marine species. Suggested mechanisms on the genotoxic potential of Fe_2O_3 NPs will also be included. However, available data contribute inadequate information to fully evaluate the potential risks of Fe_2O_3 NPs. Therefore, providing more comprehensive knowledge by future studies about the genotoxicity of Fe_2O_3 NPs for animal and plant species on the one hand and the possible mechanisms, on the other hand, will enable a healthier utilization of these nanoparticles.

Keywords: Iron (III) Oxide, Nanoparticles, Ecotoxicity, Genotoxicity, Comet assay