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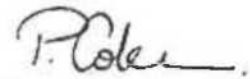
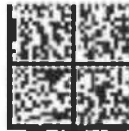
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Sayın Nur Korkmaz,

19-21 Nisan 2021 tarihleri arasında online düzenlenecek olan **5. Uluslararası Akademik Araştırmalar Kongresi'ne (ICAR)** göndermiş olduğunuz "**İğnemsiz TiO₂ Nanopartiküllerinin İnsan Lenfositlerindeki Genotoksik Etkilerinin in vitro Kromozom Anormallikleri Testi İle Değerlendirilmesi**" başlıklı bildiriniz, hakem değerlendirmesi neticesinde sözlü olarak sunulmak üzere kabul edilmiştir.

Sunumunuz 15 dakika ile sınırlı olup, kongre katılım belgesi sunum yapıldıktan sonra takdim edilecektir.

Bilginize sunar, iyi çalışmalar dileriz.



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Evaluation of Genotoxic Effects of Needle-Like TiO₂ Nanoparticles in Human Lymphocytes by Chromosomal Aberration Assay *in vitro*

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TiO₂ nanoparticles (NPs) are used primarily as a white pigment in medical products, cosmetics, foods, paper, paints, and plastic materials. They are also used as an antimicrobial agent and a catalyst for the purification of air and water. Although several investigations have reported conflicting results using various genotoxic endpoints, TiO₂-NPs have been classified as an IARC Group 2B potential carcinogen. So, investigating of genotoxic potential of these NPs is an important issue for risk assessment. In this study, the genotoxic and cytotoxic effects of TiO₂-NPs were investigated by chromosomal aberration (CA) assay and mitotic index (MI), respectively. Human lymphocytes (from three healthy donors) were treated by 100, 200, 300, 400, and 500 µg/mL concentration of TiO₂-NPs for 24 and 48 h. Only 500 µg/mL in the 24 h treatment significantly increased the frequency of abnormal cells and CAs/cell compared to the control. TiO₂-NPs significantly decreased the mitotic index in some concentrations both in the 24 and 48 h treatments. These results warn that more detailed studies are required to clarify the genotoxic potential of TiO₂-NPs.

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Keywords: TiO₂ Nanoparticles, Genotoxicity, Cytotoxicity, Chromosomal Aberration, human lymphocytes.