Toxicology Letters

Volume 205, Supplement, 28 August 2011, Pages S281

Abstracts of the 47th Congress of the European Societies of Toxicology (EUROTOX)

P2328

Heat shock decrease *Saccharomyces cerevisiae* UE-ME3 survival exposed to nanoparticles of titanium dioxide

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Available online 22 July 2011.

http://dx.doi.org/10.1016/j.toxlet.2011.05.952, How to Cite or Link Using DOI

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The main objective of this study was to evaluate the effect of temperature in *Saccharomyces cerevisiae* exposed to nanoparticles of titanium dioxide (NP-TiO_2), because there are scarces studies to evaluate the toxic effects of NP-TiO_2 in eukaryote cells. *S. cerevisiae* UE-ME3, wild-type yeast, belonging to the Enology laboratory collection of University of Evora, growing at mid-exponential phase in liquid YEPD medium with 2% (w/v) glucose at 28 or 40 °C are exposed at 0.1 or 1.0 μg/mL NP-TiO_2 prepared by sonication, during 200 min at 28 or 40 °C, in case of cell previously grown at 28 and at 40 °C, in other case. Samples from each treatment were used to obtain the post-12,000 g supernatant, which was used for protein content, DPPH antioxidant capacity and, ALP and CAT T activities determinations. Protein content, ALP and CAT T