



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





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شبكة المعلومات الجامعية

التوثيق الالكتروني والميكرو فيلم

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون أية تغيرات



يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %



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بعض الوثائق الأصلية تالفة



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بالرسالة صفحات
لم ترد بالأصل

POSSIBLE PROTECTIVE ROLE OF NITROXIDE, TEMPOL ON SOME BIOCHEMICAL ALTERATIONS INDUCED BY IRRADIATION IN RATS

A THESIS

**Submitted to Faculty of Science
*Ain Shams University***

**In Partial Fulfillment of the Requirement for the
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By

Tamer Mohamed Mahmoud Saad

B.Sc. Biochemistry

Nuclear Materials Authority

Supervised by

Prof. Dr. Zeinab Z. El-Dardiri

Professor of Biochemistry

Biochemistry Department

Faculty of Science

Ain Shams University

Prof. Dr. Rashwan M. Farag

Professor of Biochemistry

Biochemistry Department

Faculty of Medicine

Ain Shams University

Dr. Ahmed Rashad M. Abu Ghadeer

Ass. Prof. of Biochemistry

Radiation Biology Department

National Center for Radiation Research and Technology

Atomic Energy Authority

A. Rashad

B 1199

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To My Twins Daughters
Sarah and Samar

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ABSTRACT

Tamer Mohamed Mahmoud Saad

Possible Protective Role Of Nitroxide, Tempol On Some Biochemical Alterations Induced By Irradiation In Rats.

Nuclear Materials Authority

The present study was designed to evaluate the radioprotective effect of nitroxide compound, tempol and vitamin E., intraperitoneal injection to gamma irradiated rats.

Male Swiss albino rats (120-140 g) were subjected to 4.5 Gy whole body ^{137}Cs -gamma irradiation. Blood samples were collected from animals at time intervals (1,7,15,30 and 45 days) after irradiation.

The content of serum lipid peroxides was measured as malondialdehyde (MDA) and the levels of serum total lipids, triacylglycerol, cholesterol, high density lipoprotein (HDL-C), low density lipoprotein (LDL-C), total protein, albumin, globulin and A/G ratio were assayed.

The data revealed significant increase in MDA, total lipids, triacylglycerol, cholesterol, HDL-C, albumin and A/G ratio due to radiation exposure, while the levels of LDL-C, total protein and globulin were significantly decreased.

Injection of nitroxide, tempol (275 mg/ kg body wt., i.p., 5-10 min. before irradiation) and/or vitamin E (10 mg/ 100g body wt., i.p., 2 hours before irradiation), exerted noticeable amelioration of the radiation induced changes in most of the tested parameters.

Key words : Rats, Ionizing radiation, Nitroxide (Tempol), Vitamine E, Radioprotector, Lipids, Protein.