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Magnesium Metallic Complex Coordinated Phenolic Used for Inhibitor of Reactive Oxygen Species (ROS) in Biological System



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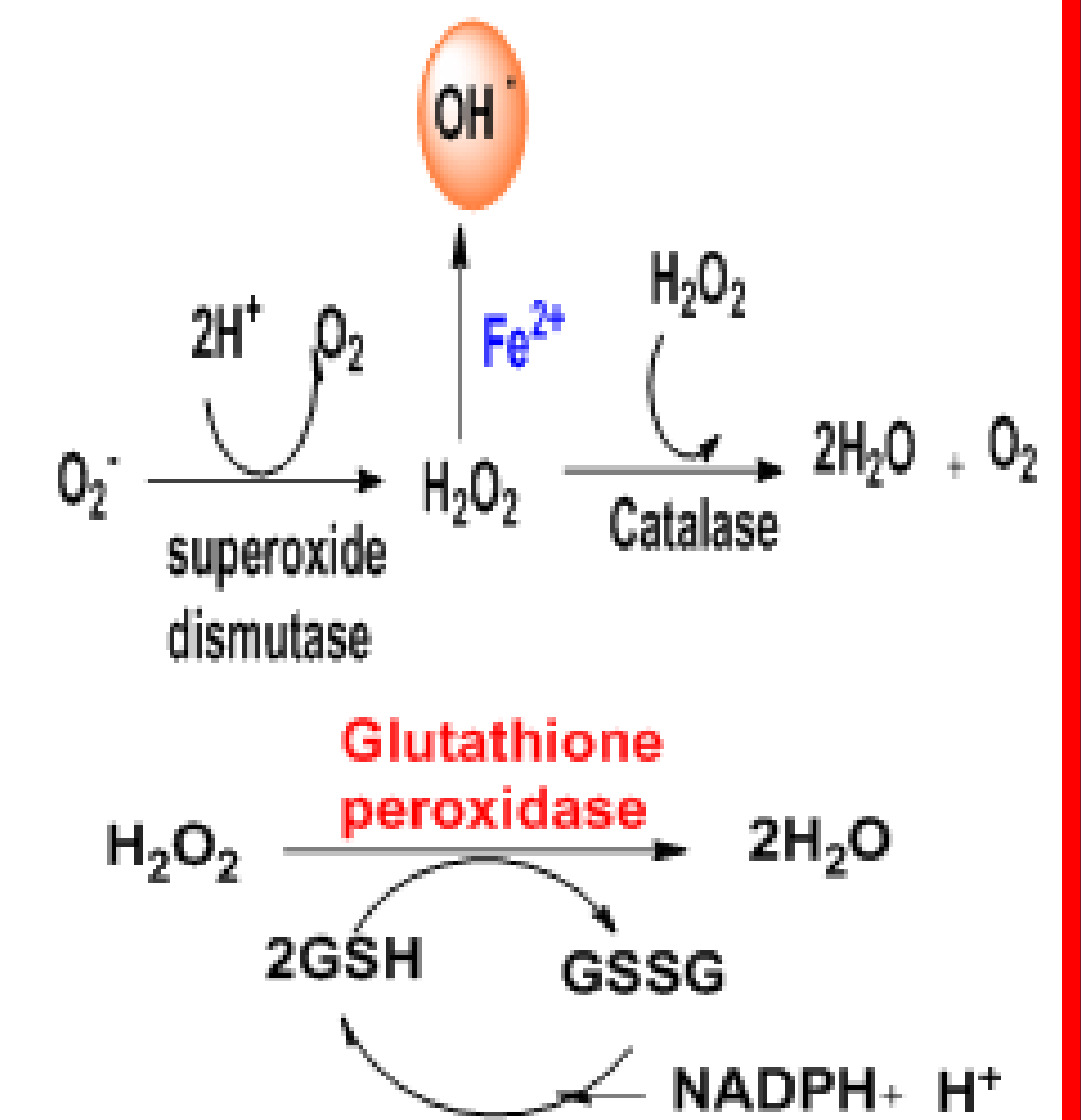
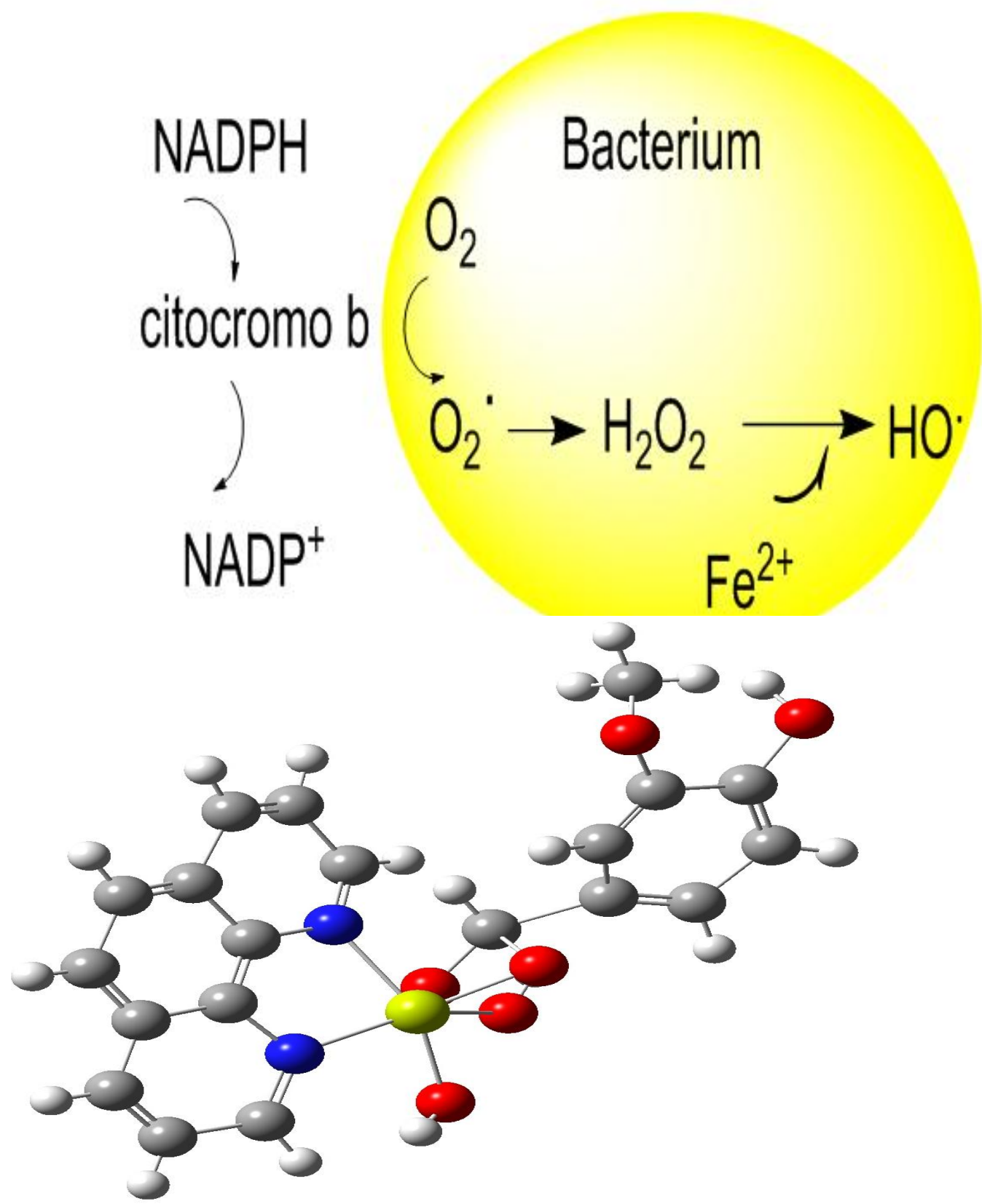
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Introduction

Mitochondrias are essential organelles for the life and death of the cell, participating of the cellular energy metabolism as well as in the control of programmed cell death¹. But are responsible for the major source of reactive oxygen species in vivo, thus being mitochondrial oxidative damage one of the main causes of many chronic diseases.

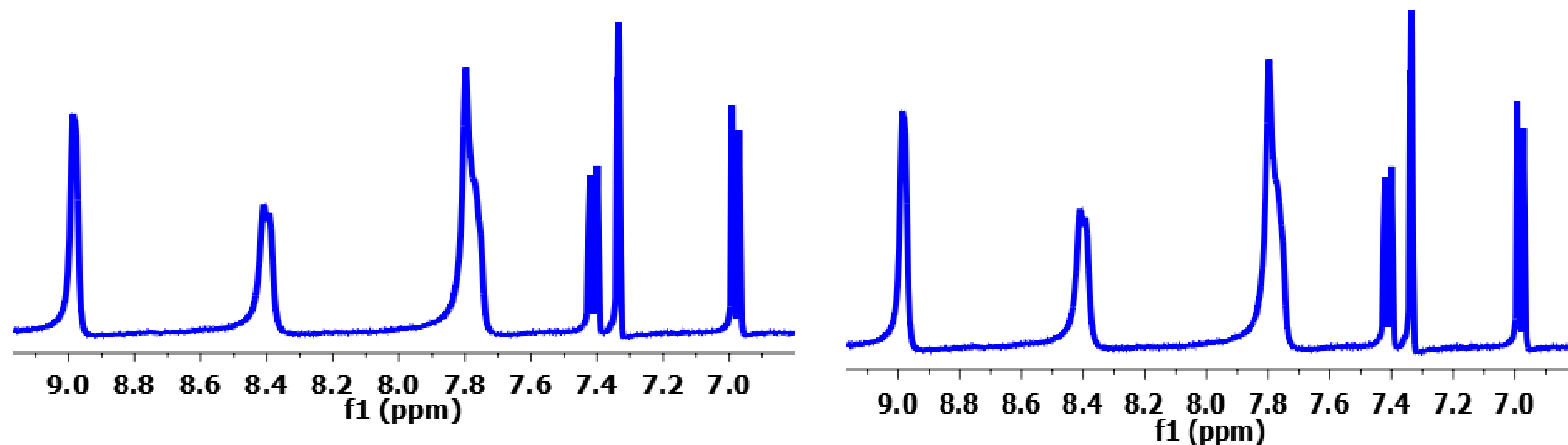


Results and Discussion

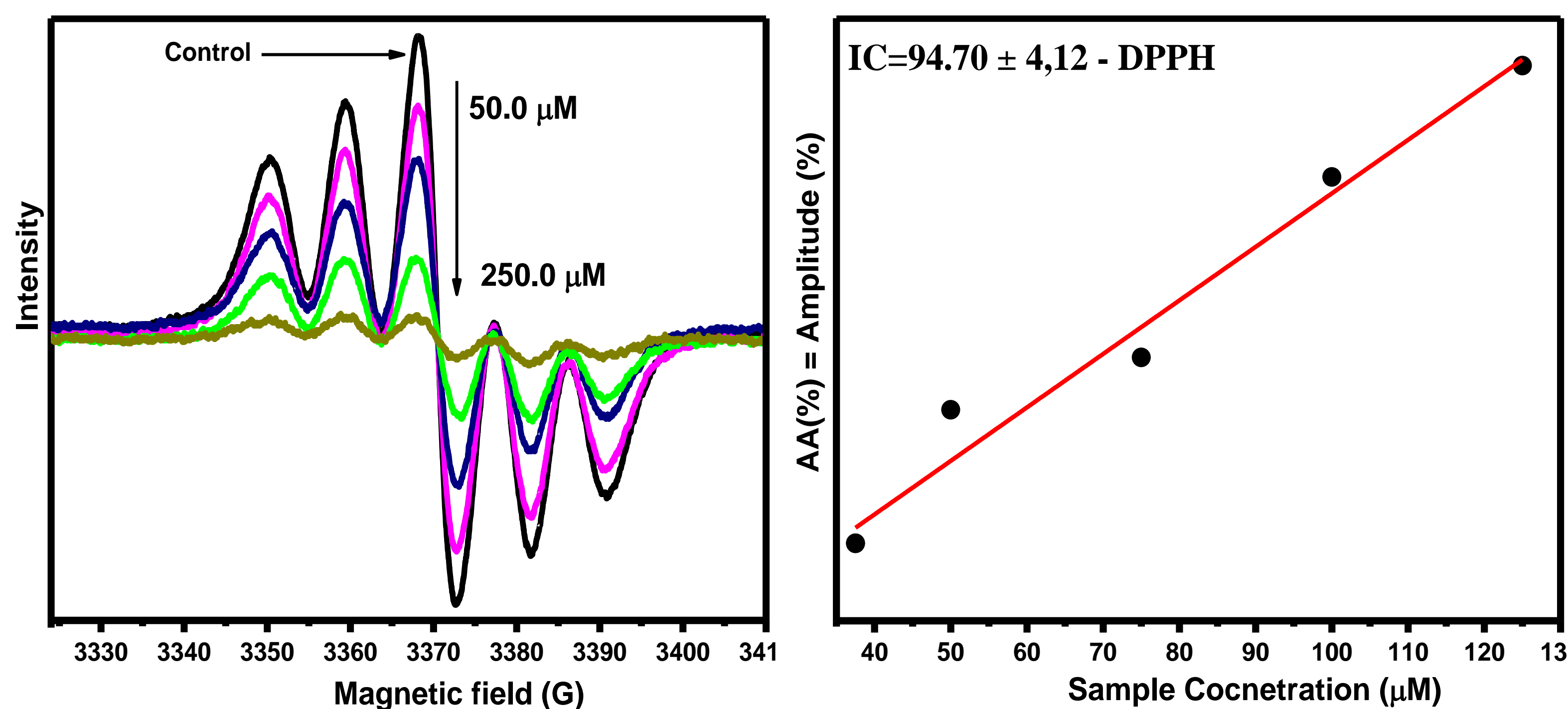
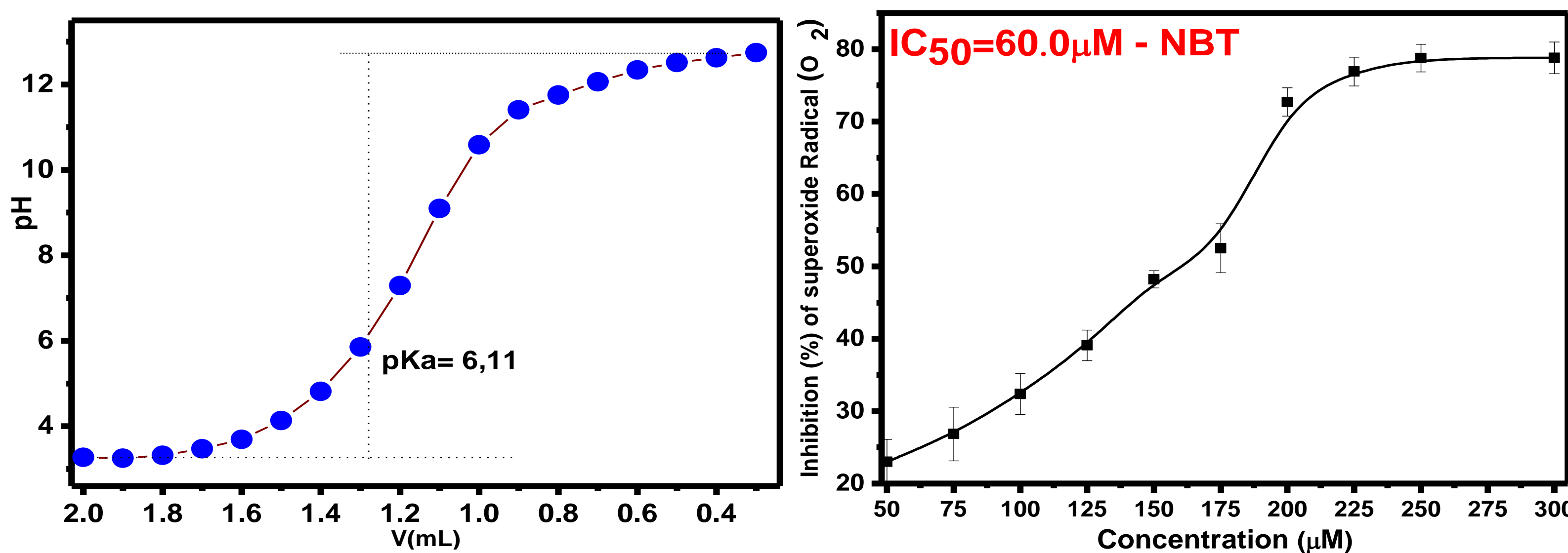
Spectroscopic Investigations

1 - NMR H¹ pH 4.0

2 - NMR H¹ pH 10.0



pKa and Antioxidant Study



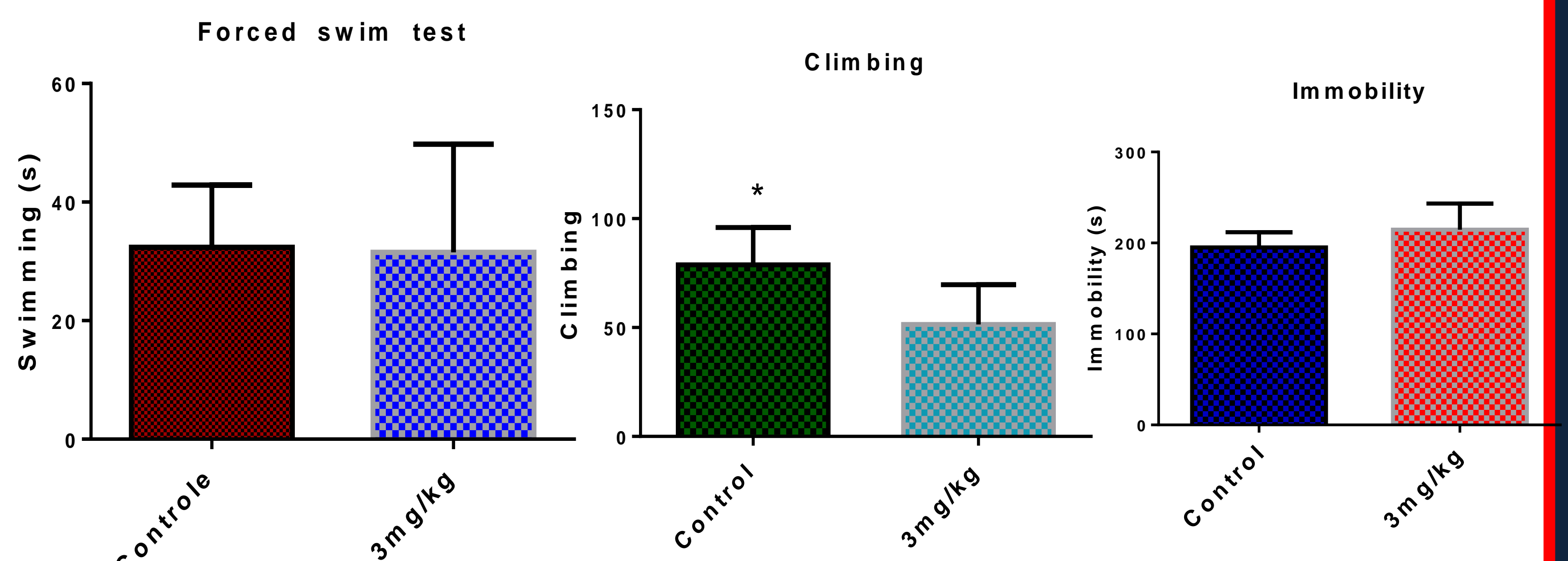
Experiments in Vivo

Kidney



GSH – Glutathione

Kidney



*p<0.05

Brian



Hippocampus
cortex front
striated

Hippocampus

SOD – Dismutase
superoxide

Conclusion

The results showed an increased SOD activity in the hippocampus, thus indicating which this complex can stimulate the production of SOD in the brain and stimulate the production of glutathione (GSH) in kidney. The best antioxidant in the human body.

Acknowledgment