



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





شبكة المعلومات الجامعية



# شبكة المعلومات الجامعية

## التوثيق الالكتروني والميكرو فيلم

# جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

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# بعض الوثائق الأصلية تالفة



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بالرسالة صفحات  
لم ترد بالأصل

# **Comparative Studies on the Removal of Organic MicroPollutants from Drinking Water by Chlorine Dioxide, Ozone and Activated Carbon**

**Thesis**

**Submitted by**

**Tarek Samir Jamil Mahmoud**

**(B.Sc. of science, Cairo University)**

**Water Pollution Control department**

**National Research Center**

**For**

**The Degree of M.Sc**

**To**

**Chemistry Department**

**Faculty of science**

**Cairo University**

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## **APPROVAL SHEET FOR SUBMISSION**

**Title of M.Sc:** Comparative Studies On the Removal of Organic  
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Dioxide, Ozone and Activated Carbon

**Name of the Candidate:** Tarek Samir Jamil Mahmoud

This thesis has been approved for submission by the supervisors:

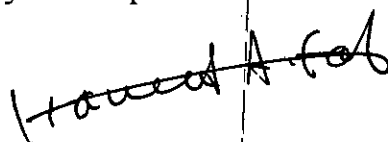
**1-Prof. Dr. Hamed Abd El-Reheem Ead**

**Professor of Organic Chemistry**

**Chemistry Department**

**Faculty of Science**

**Cairo University**

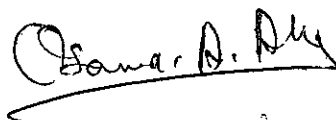


**2- Prof. Dr. Osama Ahmed Aly**

**Professor of Water Pollution**

**Water Pollution Research Department**

**National Research Center**



**Prof. Dr. Mohamed Helmy El-Nagdy**

**Chairman of Chemistry Department**

**Faculty of Science, Cairo University**

## **Abstract**

**Name: Tarek Samir Jāmil Mahmoud**

**Degree: M.Sc, Faculty of Science, Cairo University**

**Specialization: Organic Chemistry**

**Title of the Thesis: Comparative Studies On the Removal of Organic Micro-Pollutants from Drinking Water by Chlorine Dioxide, Ozone and Activated Carbon.**

Survey and analysis for the River Nile water indicated normal conditions for physico-chemical parameters but high concentration of oil and grease and some organic pollutants such as phenol and its derivatives. The use of chlorine in the disinfection step in drinking water treatment may produce chlorinated derivatives, which are hazardous compounds. In this study ozone and chlorine dioxide were used as alternatives of chlorine. It was found that these organic pollutants were oxidized to simple aliphatic compounds and carbon dioxide. The removal of the organic pollutants or the by-products produced during the disinfection by ozone or chlorine dioxide can be achieved by adsorption on activated carbon.

**Key Words: Ozone, Chlorine dioxide, Oxidation, Activated Carbon, Adsorption, Aminophenols and Chlorophenols.**

**Supervisors: 1- Prof. Dr. Hamed Abd El-Reheem Ead**

**Prof. of Organic Chemistry - Chemistry Department - Cairo University.**

**2-Prof. Dr. Osama Ahmed Aly**

**Prof. of Water Pollution - Water Pollution Research  
Department- National research Center**



**Note: -**

**Beside the work carried out in the thesis the candidate has attended and passed successfully the following post graduate courses as a partial fulfillment of the requirements of the degree of Master of Science.**

- 1. Heterocyclic chemistry.**
- 2. Design.**
- 3. Biochemistry.**
- 4. Natural products.**
- 5. Molecular orbital theory.**
- 6. Spectroscopy.**
- 7. Dyes.**
- 8. Physical organic chemistry.**
- 9. Photochemistry.**
- 10. Functional group.**
- 11. Polymer.**
- 12. Carbohydrate.**
- 13. Technique of molecular structure.**
- 14. Advanced analytical chemistry.**
- 15. Quantum chemistry.**
- 16. Elective coarse.**
- 17. Mathematics.**

**This certificate is issued at his own request.**

**Date of birth: 15/11/1973.**

**Place of birth: Cairo - Egypt**

**Prof. Dr. Mohamed Helmy El-Nagdy**

**Chairman of Chemistry Department**

**Faculty of Science, Cairo University**

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