
TABLE OF CONTENTS

1 WASTEWATERS	1
1.1 Biological treatment of municipal wastewaters	1
1.1.1 Efficiency of biological wastewater treatment plant	2
1.1.2 Respirometry of activated sludge	5
1.1.3 Biodegradation of wastewaters	7
1.2 Chemical and physico-chemical treatment of industrial wastewaters	11
1.2.1 Characterization of industrial wastewaters	13
1.2.2 Coagulation and flocculation	18
1.2.3 Fenton oxidation	19
1.2.4 Adsorption on activated carbon	22
2 EMERGING POLLUTANTS	25
2.1 Risk assessment	25
2.1.1 Biodegradability	26
2.1.2 Toxicity	28
2.2 Nitrogen and phosphorous – Assessment of eutrophication potential	30
2.3 Bioremediation technologies	33
2.3.1 Phytoremediation of waters polluted by chromium	34
2.3.2 Mycoremediation of wastewaters by containing azo dyes	36
3 CALCULATIONS	41
3.1 Water quality	41
3.2 Surface waters	46
3.3 Wastewaters	51
3.4 Air pollution	59
3.5 Solid waste	61
4 REFERENCES	65