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ENHANCEMENT OF PHOTOCATALYTIC PROCESS IN THE PETROLEUM WASTEWATER TREATMENT AT SOHAR OIL REFINERY, OMAN

by

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LIST OF ABBREVIATIONS

AP	Adequate precision
R^2_{adj}	Adjusted Coefficient of determination
AOPs	Advanced oxidation processes
AF	Air flow
API Oil Separator	American Petroleum Institute Oil Separator
ANOVA	Analysis of variance
BOD	Biological oxygen demand
BT	Biological Treatment
CCD	Central composite design
COD	Chemical oxygen demand
R^2	Coefficient of determination
COD_f	Concentration of COD after treatment
TOC_f	Concentration of TOC after treatment
CF	Degree of freedom
DOE	Design of experiment
De	Desirability
Fe^{+3}	Ferric iron
Fe^{+2}	Ferrous iron
·OH	Hydroxy1 radicals
COD_i	Initial concentration of COD
TOC_i	Initial concentration of TOC
RH	Organic compounds
PRESS	Predicted Residual Sum of Squares
RT	Reaction time

RI	Residual iron
RO	Reverse osmosis
SOR	Sohar oil refinery
Std. Dev.	Standard Deviation
k	The number of factors
e_i	The random error
X_i and X_j	The variables.
TDS	Total Dissolved Solids
TOC	Total organic compounds
TSS	Total suspended solid
TOG	Total of oil and grease

LIST OF SYMBOLS

Coefficient for the linear effect	$ß_i$
Coefficient for the quadratic effect	$ß_{ii}$
Coefficient for the cross- product effect	$ß_{ij}$
Constant coefficient	$ß_o$
Error	ε
Standard deviation	σ
The regression coefficient.	β