



**Ain-Shams University,
Faculty of Science**

Preparation and characterization of new nano- photocatalysts for purification of industrial waste water

BY

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LIST OF ABBREVIATIONS

AOP	Advanced Oxidation Processes
$\cdot\text{OH}$	Hydroxyl radical
$\text{O}_2^{\cdot-}$	Superoxide radical
BET	Brunauer–Emmet–Teller method
CB	Conduction band
CMC	Critical micelles concentration
CTAB	Cetyltrimethyl ammonium bromide
CVD	Chemical vapour deposition
D	Thickness of crystallite
DBS	Sodium dodecyl benzene sulfonate
DSSC	Dye sensitized solar cell
E-beam	Electron beam
FT -IR	Infrared Absorption Spectroscopy
HPLC	High Performance Liquid Chromatography
LTDRP	low temperature dissolution–reprecipitation process
MO	Methyl orange
MWCNT	Multiwall carbon nanotubes
NP	Naphthalene
NPE	Nonyl phenol ethoxylate
P25	Commercial TiO_2