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ABBREVIATION

NPs	Nanoparticles
SMNPs	Starch functionalized magnetite nanoparticle
$Fe_3O_4/Ag/Ag_2O$	Magnetite/siver/silver oxide nanostructures
Fe_3O_4/Cu_2O	Magnetite/ cuprous oxide nanostructures
α-FeOOH/β-FeOOH	Goethite/akageniete nanocomposites
α-FeOOH/β-FeOOH /Cu_2O	Goethite/akageneite/cuprous oxide nanostructures
PNP	*p*-nitrophenol
MO	Methyl orange
NaOH	Sodium hydroxide
HCl	Hydrochloric acid
VB	Valance Band
CB	Conduction Band
HOMO	Highest occupied molecular orbital
LUMO	Lowest unoccupied molecular orbital
E_g	Band gap
LSPR	Localized surface plasmon resonance
t	time
t_0	zero time
A_t	Absorbance at time t
A_0	Absorbance at time t_0
TOF	Turn over frequency

H_2O_2	Hydrogen Peroxide
$OH^{\cdot}$	Hydroxyl radical
$OOH^{\cdot}$	Peroxide radical
OH^{-}	Hydroxide ion
UV-vis	Ultra violet visible Spectroscopy
UV-DRS	Ultra violet diffuse reflectance spectroscopy
XRD	X-ray diffractometer
FWHM	Full width half maximum
FTIR	Fourier transforms infrared spectroscopy
TEM	Transmission electron microscopy
MPMS	Magnetic property measurement system
XPS	X-ray photoelectron spectroscopy
MS	Mott Schottky

LIST OF FIGURES

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