Electrochemical and surface studies of the effect of naphthalene-based additives on tin electrodeposition

Aranzales Ochoa, D.M.

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A Dios por hacerme testigo de la magnificencia de su obra,

A mis padres y hermanos

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List of Abbreviations

SA	-	Sulfuric Acid
MSA	-	Methane Sulfonic Acid
ML	-	Monolayer
UPD	-	Underpotential Deposition
OPD	-	Overpotential Deposition
XRD	-	X-ray Diffraction
STM	-	Scanning Tunnelling Microscopy
RE	-	Reference Electrode
RHE	-	Reversible Hydrogen Electrode
NHE	-	Normal Hydrogen Electrode
CE	-	Counter Electrode
RDE	-	Rotating Disk Electrode
SEM	-	Scanning Electron Microscopy
HER	-	Hydrogen Evolution Reaction
LSV	-	Linear sweep Voltammetry
CV	-	Cyclic Voltammetry
NPT	-	Naphthalene
NPTS	-	Naphthalene Sulfonic Acid
HNPTS	-	Hydroxy Naphthalene Sulfonic Acid
ENSA	-	Ethoxylated α-napthalenesulfonic acid
SERS	-	Surface Enhanced Raman Spectroscopy
DFT	-	Density Functional Theory
DL	-	Double Layer
BDD	-	Boron Doped Diamond
j	-	Current density
$D_{Sn^{2+}}$	-	Diffusion coefficient Sn (II)
SH	-	Scharifker and Hills model
N	-	Number of nuclei

List of Abbreviations

N_0	-	Number of actives sites
A	-	Rate constant
AN_0	-	Steady state nucleation rate