Dedicated

To

My Beloved PARENTS

Declaration

I, **Abhijit Nath** bearing Registration No. **Ph.D./724/2009** dated **11/02/2009**, hereby declare that the subject matter of the thesis entitled "***Studies on Synthesis, Characterisation and Properties of some Metal based and Carbon Nanomaterials***" is the record of work done by me and that the contents of this thesis did not form the basis for award of any degree to me or to anybody else to the best of my knowledge. The thesis has not been submitted in any other University/ Institute.

The thesis is being submitted to Assam University for the degree of Doctor of Philosophy in Chemistry.

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Contents

Abbreviations

SEM	Scanning electron microscopy
TEM	Transmission electron microscopy
HRTEM	High resolution transmission electron microscopy
SAED	Selected area electron diffraction
EDS	Energy dispersive spectra
ED	Electron diffraction
FT-IR	Fourier transform infrared
UV-Vis	Ultraviolet-visible
MB	Methylene blue
DPPH	Diphenyl picryl hydrazyl
CNM	Carbon nanomaterials
CNT	Carbon nanotube
SWCNT	Single walled carbon nanotube
MWCNT	Multiwalled carbon nano tube
CNW	Carbon nanowhisker
CNP	Carbon nanoparticles
CNS	Carbon nanospheres
CNF	Carbon nanoflake
DLC	Diamond like carbon
CVD	Chemical vapour deposition
XRD	X-ray diffraction
JCPDS	Joint committee on powder diffraction standard
FWHM	Full width at half maximum
fcc	Face centred cubic
EDAX	Energy dispersive X-ray analysis
W-H	Williamson-Hall
SC-50	Scavenging concentration 50
CV	Cyclic voltammetry
CD	Charge-discharge
SC	Super capacitors
Csp	Specific capacitance
Cp	Specific capacitance of a single electrode
SSA	Specific surface area
AFM	Atomic force microscopy

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