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List of Abbreviations

Å	Angstrom
ASTM	American Society for Testing and Materials
ATR	Attenuated total reflectance
a.u.	Arbitrary units
bbl/day	Barrels per day
BET	Brunauer-Emmett-Teller
BJH	Barrett-Joyner-Halenda
Bnl	Billion litres
BUR	Biennial Update Report
CIA	Central Intelligence Agency
CII	Confederation of Indian Industry
cm^2/sec	Cubic centimeter per second
CO_2	Carbon dioxide
cP	Centipoise
cps	Counts per second
cSt	Centistoke
EDS	Energy dispersive X-ray spectroscopy
EIA	Energy Information Administration
eV	Electronvolt
FAME	Fatty Acid Methyl Ester
FFA	Free fatty acid
FT-IR	Fourier transform infrared
g	Gram
GC-MS	`Gas chromatography-mass spectrometry

GDP	Gross Domestic Product,
GHG	Greenhouse Gases
GOI	Government of India
h	Hour
^{1}H-NMR	Proton-1 nuclear magnetic resonance
IEA	International Energy Agency
JCPDS	Joint Committee on Powder Diffraction Standards
Kg	Kilogram
KJ/mol	Kilojoule per mole
kV	Kilovolt
M	Molar
m/z	Mass to charge ratio
m^2/g	Cubic meter per gram
mA	Milliamppere
Mb/d	Million barrels per day
mg	Milligram
min	Minute
MJ	Megajoule
mmol/g	Millimole per gram
Mtoe	Million tonnes of oil equivalent
N	Normal
NBM	National Biodiesel Mission
nm	Nanometre
p.a.	Per annum
pH	Potential of hydrogen
pKa	Acid dissociation constant

rpm	Revolution per minute
SEM	Scanning electron microscopy
TGA	Thermogravimetric analysis
v/v	Volume/volume
WRI	World Resources Institute
wt%	Weight percent
WVO	Waste vegetable oil
XRD	X-ray diffraction
ºC	Degree Celsius
λ	Lambda
µl	Microliter
µm	Micrometre
%	Percent
θ	Theta