List of abbreviations used in this thesis

a Annum

AD Years after the birth of Jesus

¹⁴C Carbon ²³⁰Th Thorium

^{230Th} / ²³⁴U Uranium-thorium dating, also called thorium-230 dating.

²³⁴U Uranium 40 K Potassium

ABF Allahbund Fault

above mean sea level amsl

ASTM American Society for Testing and Materials

ARI Agharkar Research Institute, Pune

BHG Banni Half Graben

BLBhuj low

BP Before present, i.e Present referring to the year 1950 AD.

BTZ Bet Zone

 C^{14} Carbon-14 dating

Ca Around-About

CAM Central Age Model

CHR Central Highland Range

CHR Central Hill Range

CL / BLGO Canyon Limestone/ Badi Lower Golden Oolite

Coord Coordinator

CSIR Council of Scientific & Industrial Research

DEM Digital Elevation Model

DEM Digital Elevation Model

Dept Deaprtment

DGM Deputy General Manager

Dr Has obtained a doctoral degree

EDX Energy Dispersive X-ray Spectroscopy ESR Electron Spin Resonance

FA Fakirwadi Area

FMM Finite Mixture Modeling (FMM)

Fmr Former

Ga Gangeswar Area

GBZ Great Barren Zone

GF Gedi Fault

GOKHG Gulf of Kachchh Half Graben

GSI Geological Society of India

GYF Gora dungar-Yellow flagstone member

IBF Island Belt Fault

IBI Island Belt Upland

IBU Island Belt Uplift

ICS International Commission on Stratigraphy

ISB Island Belt

ISC Indian Science Congress

ISM Indian summer monsoon

ISR The Institute of Seismological Research, Gandhinagar.

IUGS International Union of Geological Sciences

JCL Jumara Coral Limestone Member

JGO Jhura Golden Oolite Member

Ka / kyr Thousand years

KA Kotda Roha Area

Kachchh Krantiguru Shyamji Krishna Verma Kachchh University, Bhuj

University

KHF Katrol Hill Fault

KHR Katrol Hill Range

KMF Kachchh Mainland Fault,

KMU Kachchh Mainland Uplift

KR Kachchh Rift

KU Kathiyawar Uplift

LED Light Emitting Diode

LGM Last Glaciations Maxima

LISS-III (Linear Imaging Self Scanning Sensor) sensor is an optical sensor

working in four spectral bands (green, red, near infrared and short wave infrared). It covers a 141km-wide swath with a resolution of

23m in all spectral bands.

LRK Little Rann of Kachchh

Lst Limestone

LTZ Linear Trench Zone

M S Uni The Maharaja Sayajirao University of Baroda, Vadodara. India

M.S.L./msl Mean Sea Level

Ma Million years

MAM Minimum Age Model

mb Member

MH Median High

MIS Marine Isotope Stage

MS Magnetic Susceptibility

NET National Eligibility for Lectureship Test

NGO Non Governmental Organization

NHR Northern Hill Range / Northern Highland Range

NKF North Kathiawar Fault

NKHF North Katrol Hill Fault

Nod Nodular

NPF Nagar Parkar Fault

NPU Nagar Parkar Uplift and.

NPU Nagar Parkar Uplift

ONGC Oil and Natural Gas Corporation Limited

OSL Optically-Stimulated Luminescence

op. (Latin-Opere Citato)-earlier in the text, used in starting or end note

Ph.D. Doctor of Philosophy

Pos Position

Prof. Professor

PU Pancham Uplift

RISO National Laboratory for Sustainable Energy, Technical University

of Denmark (DTU)

RHG Rann Half Graben

SAR Single-aliquot regenerative dose

SEM Scanning Electron Microscope

SKHF South Katrol Hill Fault

SOI Survey of India

SRTM Shuttle Radar Topography Mission

sst Sandstone

SWF South Wagad Fault

TF Transverse Fault

UGC University Grants Commission

VA Varli Area

VF Vigodi Fault

vs Versus

VGKDZ Vigodi-Gugriana-Khirsara Deformation Zone

WU Wagad Uplift

XRF X-ray fluorescence spectrometry