

Abbreviations

A	Austria
ABB	ASEA Brown Boveri AG
ABB AshArc	“name of ash melting process”
ABB Deglor	“name of vitrification process”
AbfAbIV	Abfallablagerungsverordnung, (D)
ACLSM	Active Control Landfill and Stabilization Method
AD	anaerobic digestion
AGL	Aktion Gesunde Luft Thun (CH)
AOX	adsorbable organic halogens
APC	air pollution control
ARA	American Automotive Recyclers Association
ASR	automotive shredder residues
ASTM	American Society for Testing and Materials
AT ₄	“respiration coefficient: amount of oxygen consumed within 96 hours”
AVAG	“AG für Abfallverwertung, waste disposal company of the Thun region (CH)”
AVI	see GDA/AVI
AVR	“Dutch MSWI plant”
BA	bottom ash
BCR	“official reference material of FA of European Community Bureau of Reference”
BFB	bubbling fluidized bed
BimSchV	“German legal requirements concerning air pollution control”
BLA	“Dutch Air Emissions from Waste Incineration Order”
BOD	biological oxygen demand
BTU	British Thermal Unit (BTU)
BUWAL	Bundesamt für Umwelt, Wald und Landschaft, (CH)
C	carbon
CBR	California Bearing Ratio
CE	consumer electronics
CEM	“standard of portland cement”
CEN	European. Committee on normalisation
CFB	circulating fluidized bed
CFC	chloro-fluoro-carbon

CFD	computational fluid dynamics
CH	Switzerland
CH ₄	methane
CHF	Swiss Franc, Swiss currency
CML	“a life-cycle impact assessment (LCIA) method”
CO	carbon monoxide
CO ₂	carbon dioxide
COD	Chemical Oxygen Demand
CombS	combined system
ConvS	conventional system
CRT	cathode ray tube
CSH	calcium-silicate-hydrates
CSR	continuously stirred reactor
CTU	CT Umwelttechnik
D	Germany
DDT	Dichlor diphenyl trichlor ethane, “biocide”
DEV-S4	“German leaching procedure”
DIN	Deutsche Industrie Norm
DIP	De-Inked-Pulp
DNA	deoxyribonucleic acid
DSD	Dual System Deutschland
EA	Environment Agency
ECO	economiser [tech.]
E _{CRS,0}	temperature dependent energy exchange ratio
EDIP	“a life-cycle impact assessment (LCIA) method”
EDP	electronic data processing
EDTA	ethylene dimethyl tetraamin acid
EEE	electrical and electronic equipment
EEE	Ecological-Economic Efficiency
EFA	electrostatic filter ash
ELV	end-of-life-vehicles
EM	ecological modernization
EMPA	“Swiss governmental Material Testing and Research Institute”
EN	Euro Norm
EO	explorable ores
EPS	“a life-cycle impact assessment (LCIA) method”
EPS	extracellular polymeric substances
ESP	electrostatic precipitator
EU	European Union
EXAFS	Extended X-ray Absorption Fine Structure Spectroscopy
FA	fly ash, filter ash
FB	fluidised bed
FC	filter cake
FLT	Freie Liste Thun, (CH)

FLU	“APC residue from MSWI plant Lucerne, (CH)”
FLUAPUR	“name of filter ash treatment process”
FNU	“APC residue from MSWI plant Niederurnen, (CH)”
GB ₂₁	“gas formation within 21 days”
GDA/AVI	“Amsterdam Municipal Waste Processing Department”
GDP	Gross Domestic Product of a country
GHG	Green House Gas
GNP	Gross National Product
HCB	Hexachlorobenzene
HCN	Hydrocyanic acid
HDPE	high density polyethylene
HE-WTE	High Efficiency Waste-to-Energy
HHW	household hazardous waste
HLW	nuclear high-level waste
h _n	net calorific value
HS	Blast furnace slag
HT	high temperature treatment technologies
I&B	Industry and Business
i.s.s.d/i.s.s.dry	under standard conditions, dry
ICP-OES	Inductively Coupled Plasma Optical Emission Spectrometer
IEA	International Energy Agency
IG	Interessen Gemeinschaft
IP-Waste	Integrated Project Waste
IR	infrared
ISO	International Organisation of Standardisation
ISWA	International Solid Waste Association
IT	industrial technology
IWM	Integrated Waste Management
JLT46	“Japanese leaching test method for soil”
KCC	Kent County Council
KE	Kent Enviropower
L/S	liquid/solid ratio
LCA	Life-Cycle Assessment
LCD	liquid crystal displays
LCI	Life-Cycle Inventory
LCIA	Life-Cycle Impact Assessment
LHV	lower heating value
l _{min}	minimum air requirement
LSLP	laboratory-scale leaching plant
MBP	mechanical-biological pre-treatment (of MSW)
MFR	material processing facility
MSW	municipal solid waste
MSWI	municipal solid waste incinerator
Mtoe	million tons of oil equivalent

MW	municipal solid waste
MWI	municipal waste incineration
MWTE	“public utility in the Netherlands”
MWTS	Municipal waste water treatment sludge
NEB	net ecological benefit
NGO	non-governmental organization
NH ₃	ammonia
NIMBY	“Not in my backyard!”
NL	The Netherlands
NM VOC	non-methane volatile organic compounds
NO _x	nitrogen oxide
NPV	net present value
O&M	Operation and Maintenance
OECD	Organization for Economic Co-operation and Development
PAH	polycyclic aromatic hydrocarbons
PAN	„Gesellschaft zur Planung der Restabfallbehandlung, (D)“
PBB	polybrominated biphenyls
PBDD/F	polybrominated dibenzo dioxins and furans
PBDE	polybrominated diphenylethers
PC	personal computer
PCB	polychlorinated biphenyls
PCDD/F	polychlorinated dibenzo dioxins and furans
PDF	“a life-cycle impact assessment (LCIA) method”
Pe	Peclet Number
PE	Polyethylen
PECK	„Paul Scherrer Institut - Eberhard Recycling - CT Umwelttechnik – Kūpat“
PET	polyethylene terephthalate
PF	primary (regular) fuel
PFR	plug flow reactor
pH	log H ₃ O ⁺ concentration
PLFA	phospholipid fatty acids
PS	power station
PS	Polystyrole
PSA	pressure swing adsorption
PTFE	Teflon
PVC	polyvinyl chloride
QRR	quartz-glass tube
QZ	Quartz
R&D	Research and Development
RAL-GZ 724	“quality certificate”
RBRC	Rechargeable Battery Recycling Corporation
RDF	refuse derived fuel
REF	recovered fuel

RES	renewable energy sources
RESH	residues from shredding
RR park	resource recovery park
RRRF	Robbins Resource Recovery Facility
SAEFL	Swiss Agency for the Environment, Forests and Landscape
SBA	Siemens-Schwelbrennanlage
SC	Social Compatibility
SCA	Social Compatibility Analysis
SCR	selective catalytic reduction
SCW	Supercritical water
SCWO	supercritical water oxidation
SEM	Scanning electron micrographs
SEM	scanning electron microscope
SF	substitute fuel
SFA	Fly ash
SI	saturation index
SIA	Schweizerischer Ingenieur- und Architektur-Verband
SLF	shredder light fraction, fluff
SNCR	selective non-catalytic reduction
SO ₂	sulfur dioxide
SPPE	Swiss Priority Program Environment
SWICO	Swiss business association of information, communication and organisation technologies
TC	Transfer coefficients
TCDD	Tetrachlor dibenzo dioxin „Seveso-Dioxin“
TCE	trichloroethene
TDS	Thermo-Desorption-Spectroscopy
TEES	Thermochemical Environmental Energy System
TEQ	TCDD equivalent
TOC	Total Organic Carbon
TOW	Swiss Technical Ordinance on Waste (see also TVA)
TV	television set
TVA	Schweizerische Technische Verordnung über Abfälle (see also TOW)
TWR	transpiring wall reactor
UCPTE	“a life-cycle impact assessment (LCIA) method”
UK	United Kingdom
US	United States of America
VFA	Volatile fatty acids
V _{min}	minimum amount of flue gas
VREG	“Act on Return, Take back and Disposal of Electrical and Electronic Appliances”
VS	Vergasen/Verbrennen-Schmelzen
VTT	“finnish national research centre”

WEEE	Electrical and Electronic Equipment
WTA	“Willingness To Accept”
WtE	Waste to Energy
WTP	”Willingness To Pay”
WWTP	Waste Water Treatment Plant
ϑ	temperature
χ	concentration
λ	stoichiometric ratio
ω	frequency
ξ	concentration (mass related)
Ψ	concentration (volume-related)