

# LIST OF ABBREVIATIONS

AAF	2-acetylaminofluorene
AhR	aryl hydrocarbon receptor
AKR	aldo-keto reductase
AM	arithmetic mean
ATSDR	Agency of Toxic Substances and Disease Registry
B[a]P	benzo[a]pyrene
B[a]PDE	benzo[a]pyrene-7,8-diol-9,10-epoxide
BAL	bronchoalveolar lavage
BG	gasoline, high-emitting black smoker
bhp	brake horse power
bw	body weight
CI	confidence interval
CO	carbon monoxide
CYP	cytochrome P450
DB[a,h]A	dibenz[a,h]anthracene
dG	deoxyguanosine
dG-C8-2-AF	<i>N</i> -(deoxyguanosin-8-yl)-2-aminofluorene
dG-C8-AP	<i>N</i> -(deoxyguanosin-8-yl)-1-aminopyrene
dG- <i>N</i> <sup>2</sup> -2-AAF	C3-(deoxyguanosin- <i>N</i> <sup>2</sup> -yl)-2-acetylaminofluorene
5-(dG- <i>N</i> <sup>2</sup> -yl)-6-AC	5-(deoxyguanosin- <i>N</i> <sup>2</sup> -yl)-6-aminochrysene
5-(dG- <i>N</i> <sup>2</sup> -yl)-1,2-DHD-6-AC	5-(deoxyguanosin- <i>N</i> <sup>2</sup> -yl)-1,2-dihydroxy-1,2-dihydro-6-aminochrysene
<i>N</i> -(dG-8-yl)-6-AC	<i>N</i> -(deoxyguanosin-8-yl)-6-aminochrysene
1,2-DHD-6-AC	<i>trans</i> -1,2-dihydro-1,2-dihydroxy-6-aminochrysene
1,2-DHD-6-NC	<i>trans</i> -1,2-dihydro-1,2-dihydroxy-6-nitrochrysene
9,10-DHD-6-NC	<i>trans</i> -9,10-dihydro-9,10-dihydroxy-6-nitrochrysene
1,2-DHD-6-NHOH-C	<i>trans</i> -1,2-dihydroxy-1,2-dihydro-6-hydroxyaminochrysene
<i>N</i> -(dI-8-yl)-6-AC	<i>N</i> -(deoxyinosin-8-yl)-6-aminochrysene
DiPN	<i>N</i> -nitrosodiisopropanolamine
DMSO	dimethyl sulfoxide
DPF	diesel particle filter
EC	elemental carbon
EDTA	ethylenediaminetetraacetic acid
EOM	extractable organic matter
EPA	Environmental Protection Agency
ERCC	excision repair cross-complementing

ESC	European stationary cycle
ETC	European transient cycle
EU	European Union
F <sub>1</sub>	offspring
2-FAF	2-formylaminofluorene
FINJEM	Finnish job-exposure matrix
FTP	Federal Test Procedure
G	gasoline, normal emitter at 72 °F
G30	gasoline, normal emitter at 30 °F
GC	gas chromatography
GC-ECD	gas chromatography-electron capture detector
GC-MS	gas chromatography-mass spectrometry
GC-NICI-MS	gas chromatography-negative ion chemical ionization-mass spectrometry
GDI	gasoline direct injection
g/bhp-h	grams per brake horsepower-hour
g/kg <sub>fuel</sub>	mass emissions per mass of fuel
g/kWh	grams per kilowatt-hour
g/mi	grams per mile
g/km	grams per kilometre
GPT	guanine phosphoribosyl transferase
GST	glutathione S-transferase
GVWR	gross vehicle weight rating
HGV	heavy goods vehicle
Hmox	haeme oxygenase
hp	horse power
HPLC	high-performance liquid chromatography
HPRT	hypoxanthine-guanine phosphoribosyltransferase
HR	hazard ratio
H <sub>2</sub> SO <sub>4</sub>	sulfuric acid
IARC	International Agency for Research on Cancer
Ig	immunoglobulin
IL	interleukin
IPCS	International Programme on Chemical Safety
JEM	job-exposure matrix
kW	kilowatt
kW-h	kilowatt-hour
LEV	low emission vehicle
LPG	liquefied petroleum gas
MAPK	mitogen-activated protein kinase
MS	mass spectrometry
NADPH	nicotinamide adenine dinucleotide phosphate
NAT	<i>N</i> -acetyltransferase
NCI	National Cancer Institute
NDEA	<i>N</i> -nitrosodiethylamine
NDPA	<i>N</i> -nitrosodipentylamine
NDPHA	<i>N</i> -nitroso-bis(2-hydroxypropyl)amine
NG	new technology gasoline
NICI	negative ion chemical ionization

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NIOSH	National Institute of Occupational Safety and Health
NIST	National Institute of Standard and Technology
NQO1	nicotinamide adenine dinucleotide phosphate-quinone oxidoreductase
NTDE	new technology diesel engines
OGG	8-oxoguanine glycosylase
8-OH-dG	8-oxo-2'-deoxyguanosine
OR	odds ratio
PAH	polycyclic aromatic hydrocarbon
PFI	port fuel injection
PM	particulate matter
POR	P450 oxidoreductase
R <sup>2</sup>	explanatory strength
ROS	reactive oxygen species
rpm	revolutions per minute
RR	relative risk
SCR	selective catalytic reduction
SD	standard deviation
SFTP	Supplemental Federal Test Procedure
SID-LC/MS	stable-isotope dilution liquid chromatography/mass spectrometry
SIR	standardized incidence ratio
SMR	standardized mortality ratio
SO <sub>2</sub>	sulfur dioxide
SRM	standard reference material
SULT	sulfotransferase
TDE	traditional technology diesel engines
TK	thymidine kinase
TLC	thin-layer chromatography
TNF	tumour necrosis factor
TPA	12-O-tetradecanoylphorbol-13-acetate
UGT	uridine glucuronosyl transferase
UV	ultraviolet
WG	gasoline, high-emitting white smoker

