

LIST OF ABBREVIATIONS

| | |
|--------------------|---|
| %DNA | percentage DNA in tail |
| •OH | hydroxyl radical |
| 3-MC | 3-methylcholanthrene |
| 8-OH-dG | 8-hydroxy-2'-deoxyguanosine |
| 8-oxodGuo | 8-oxo-7,8-dihydro-2'-deoxyguanosine |
| ACGIH | American Conference of Governmental Industrial Hygienists |
| Al | aluminium |
| ALL | acute lymphoblastic leukaemia |
| AM | alveolar macrophage |
| AML | acute myeloid leukaemia |
| ApoJ | apolipoprotein J |
| Ar | argon |
| BALF | bronchoalveolar lavage fluid |
| BALT | bronchus-associated lymphoid tissue |
| Be | beryllium |
| Ca | calcium |
| CaCrO ₄ | calcium chromate |
| CANJEM | Canadian job-exposure matrix |
| Cd | cadmium |
| CFU | colony-forming unit |
| CHMS | Canadian Health Measures Survey |
| CI | confidence interval |
| CLL | chronic lymphocytic leukaemia |
| CLU | clusterin |
| CO | carbon monoxide |
| Co | cobalt |
| Cr | chromium |
| Cr(VI) | hexavalent chromium |
| CRP | C-reactive protein |
| Cu | copper |
| dGuo | deoxyguanosine |
| DLBCL | diffuse large B-cell lymphoma |
| ECRHS | European Community Respiratory Follow-up Survey |

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|--------------------------------|---|
| ELF-EMF | extremely low frequency electromagnetic fields |
| EPIC | European Prospective Investigation into Cancer and Nutrition |
| ER | electric resistance |
| FCA | flux-cored arc |
| Fe | iron |
| Fe ₂ O ₃ | iron oxide |
| FINJEM | Finnish job-exposure matrix |
| FSH | follicle-stimulating hormone |
| GLP | good laboratory practice |
| GMA | gas metal arc |
| GPX | glutathione peroxidase |
| GSH | glutathione |
| GTA | gas tungsten arc |
| H ₂ O ₂ | hydrogen peroxide |
| He | helium |
| HR | hazard ratio |
| HRV | heart rate variability |
| HS | hard-surfacing |
| IARC | International Agency for Research on Cancer |
| ICARE | Investigation of Occupational and Environmental Causes of Respiratory Cancers |
| ICNIRP | International Commission on Non-Ionizing Radiation Protection |
| ICP | inductively coupled plasma |
| IEC | International Electrochemical Commission |
| IFN γ | interferon gamma |
| IgA | immunoglobulin A |
| IgM | immunoglobulin M |
| IL | interleukin |
| In | indium |
| In ₂ O ₃ | indium tin oxide |
| iNOS | inducible nitrite oxide synthase |
| IPUMS | Integrated Public Use Microdata Series |
| ISO | International Organization for Standardization |
| ITO | indium tin oxide |
| JEM | job-exposure matrix |
| JSOH | Japan Society for Occupational Health |
| KL-6 | Krebs von den Lungen-6 |
| LALN | lung-associated lymph node |
| LDH | lactate dehydrogenase |
| LH | luteinizing hormone |
| LINE-1 | long interspersed nuclear element-1 |
| LOD | limit of detection |
| LPS | lipopolysaccharide |
| MAG | metal active gas |
| MAPP | methylacetylene-propadiene |
| MDA | malondialdehyde |
| Mg | magnesium |
| MIG | metal inert gas |
| MLN | mediastinal lymph node |
| MMA | manual metal arc |
| Mn | manganese |

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|-------------------|--|
| MN | micronucleus |
| MnSOD | manganese superoxide dismutase |
| Mo | molybdenum |
| MoO ₃ | molybdenum trioxide |
| MOR | mortality odds ratio |
| MoS ₂ | molybdenum (IV) sulfide |
| MS | mild steel |
| MTT | 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide |
| N | nitrogen |
| β-NAG | β-N-acetyl-glucosaminidase |
| NFκB | nuclear factor kappa-light-chain-enhancer of activated B cells |
| NHANES | United States National Health and Nutrition Examination Survey |
| NHL | non-Hodgkin lymphoma |
| Ni | nickel |
| NIOSH | United States National Institute for Occupational Safety and Health |
| NLRP3 | NACHT, LRR and PYD domains-containing protein 3 |
| NLST | National Lung Screening Trial |
| NO | nitric oxide |
| NO ₂ | nitrogen dioxide |
| NO _x | nitrogen oxides |
| NP | nanoparticle |
| O | oxygen |
| O ₃ | ozone |
| OR | odds ratio |
| PAFR | platelet-activating factor receptor |
| PAH | polycyclic aromatic hydrocarbon |
| PAPR | powered air-purifying respirator |
| Pb | lead |
| PBMC | peripheral blood mononuclear cell |
| PM _{2.5} | particulate matter of diameter < 2.5 μm |
| PM ₄ | particulate matter of diameter < 4 μm |
| PMN | polymorphonuclear leukocytes |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| ROS | reactive oxygen species |
| RR | relative risk |
| SA | submerged arc |
| SAA | serum amyloid A |
| SIR | standardized incidence ratio |
| SITO | sintered indium tin oxide |
| SLL | small lymphocytic lymphoma |
| SMR | standardized mortality ratio |
| SnO ₂ | stannic oxide |
| SOD | superoxide dismutase |
| SP | surfactant protein |
| SRBC | sheep red blood cell |
| SS | stainless steel |
| TCC | transitional cell carcinoma |
| TCE | trichloroethylene |
| Th | thorium |
| TIG | tungsten inert gas |

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|------------------|-------------------------------------|
| TiO ₂ | titanium dioxide |
| TIP | total inhalable particulate |
| TNF α | tumour necrosis factor alpha |
| TRH | TSH-releasing hormone |
| TSH | thyroid-stimulating hormone |
| TWA | time-weighted average |
| UFP | ultrafine particles |
| UV | ultraviolet |
| <i>VHL</i> | von Hippel–Lindau tumour suppressor |
| vs | versus |
| wt% | percentage by weight |
| Zn | zinc |