

## **LIST OF ABBREVIATIONS USED IN THIS VOLUME**

- ACGIH:** American Conference of Governmental Industrial Hygienists  
**AES:** alkaline earth silicate  
**AI:** alveolar–interstitial (region)  
**APFE:** European Glass Fibre Producers Association  
**AR:** alkali-resistant  
**ASTM:** American Society for Testing and Materials  
**ATF:** activating transcription factor  
**B fibre:** Bayer fibre  
**BEA:** bronchitis, emphysema and asthma  
**CARE:** control and reduce exposure  
**CEN:** Comité européen de Normalisation (European Committee of Standardization)  
**Chrome:** chromium oxides  
**CIIT:** Chemical Industry Institute of Toxicology  
**CVF:** colloidal and vacuum formed  
**D:** diameter  
**ECA:** Everest Consulting Associates  
**ECFIA:** European Ceramic Fibre Industries Association  
**EDXA:** energy dispersive X-ray diffraction analysis  
**E-glass:** electrical glass (i.e. developed for electrical applications)  
**EIPPCB:** European Integrated Pollution Prevention and Control Bureau  
**ERK:** extracellular signal-regulated kinase  
**ERM:** Environmental Resources Management  
**ET:** extrathoracic  
**EU:** European Union  
**EURIMA:** European Insulation Manufacturers' Association  
**FARIMA:** Fiberglass and Rockwool Insulation Manufacturers' Association of Australia  
**FEV<sub>1</sub>:** forced expiratory volume in 1 s  
**FVC:** forced vital capacity  
**GM:** geometric mean  
**GMD:** geometric mean diameter

- GML:** geometric mean length  
**GSD:** geometric standard deviation  
**HEPA:** high-efficiency particulate air  
**HID:** highest ineffective dose  
**HSPP:** Health and Safety Partnership Program  
**HT:** high-alumina, low-silica wool  
**ICRP:** International Committee on Radiological Protection  
**IgG:** immunoglobulin G  
**ILO:** International Labour Office (of the International Labour Organization)  
**ILSI:** International Life Sciences Institute  
**INRS:** Institut national de Recherche et Sécurité  
**INSERM:** Institut national de la Santé et de la Recherche médicale  
**IPF:** idiopathic pulmonary fibrosis  
**ISO:** International Organization for Standardization  
**JM Fibre:** Johns Manville fibre  
**JNK:** Jun N-terminal kinase  
 $k_{dis}$ : dissolution constant  
**L:** length  
**LED:** lowest effective dose  
**LR:** local rate  
**MAPK:** mitogen-activated protein kinases  
**Met:** mesothelial  
**MMAD:** mass median aerodynamic diameter  
 **MMMF:** man-made mineral fibre  
 **MMVF:** man-made vitreous fibre  
**NAIMA:** North American Insulation Manufacturers' Association  
**NF:** nuclear factor  
**NIOSH:** National Institute for Occupational Safety and Health  
**NMRD:** non-malignant respiratory disease  
**NOHSC:** National Occupational Health and Safety Commission of Australia  
**NR:** national rate  
**NRC:** National Research Council (USA)  
**8-OH-dG:** 8-hydroxydeoxyguanosine  
**OSHA:** Occupational Safety and Health Administration (USA)  
**P & CAM:** physical and chemical analytical method  
**PAH:** polycyclic aromatic hydrocarbons  
**PCOM:** phase-contrast optical microscopy  
**PLM:** polarized light microscopy  
**PSP:** Product Stewardship Program  
**R:** retained  
**RCF:** refractory ceramic fibre  
**RCFC:** Refractory Ceramic Fiber Coalition (USA)

- RH:** Rheinstahl (slag wool)
- RRF:** respiratory response function
- SD:** standard deviation
- SEM:** scanning electron microscopy
- SIR:** standardized incidence ratio
- SMR:** standardized mortality ratio
- TB:** tracheobronchial
- TEM:** transmission electron microscopy
- TG:** transcription factor
- TGF:** tumour growth factor
- TIMA:** Thermal Insulation Manufacturers' Association (USA)
- TNF:** tumour necrosis factor
- TPC:** total pulmonary capacity
- TRGS:** Technische Regeln für Gefahrstoffe
- TWA:** time-weighted average
- UICC:** Union internationale contre le Cancer (International union against cancer)
- VDI:** Verein Deutscher Ingenieure
- WHO fibre:** see Glossary
- WT<sub>½</sub>:** weighted lung retention half-time
- ZI:** Zimmermann (slag wool)