

HSE science and research publications

2026

Updated July 2026

<https://doi.org/10.69730/hse.26sp2026>



Contents

Journal Articles	2
Conference Presentations	4
Reports by HSE Scientists and Expert Committees	5
National and Official Statistics Publications	6

Journal Articles

Alliott, G., Bannister, A. and Dow, H. (2026) [Evaluation of the performance capability of remote visual inspection of concrete structures using drones](#). *Infrastructures*, 11(7), 250

Baguley, D., Evans, G., Bard, D., Monks, P. and Cordell, R. (2026) [Review of volatile organic compound \(VOC\) emissions from desktop 3D printers and associated health implications](#). *Journal of Exposure Science and Environmental Epidemiology*, 36, 149–66

Burden, N. et al including Fisher T and Fryer M. (2026) [Workshop report: Scoping for the development of a proposal for an OECD guidance document on fish vitellogenin assessment](#). *Integrated Environmental Assessment and Management*, 22(1), 11–20

Buston, J. and Reeve, P. (2026) [Safety in lithium-ion battery recycling: Tracking the materials of concern](#). *Next Energy*, 12, 100742

Cairns, J., Braysher, E., Butler, O., Cavoura, O., Davidson, C., Todoli Torro, J.-L. and von der Au, M. (2026) [Atomic spectrometry update: A review of advances in environmental analysis](#). *Journal of Analytical Atomic Spectrometry*, 41(1), 16–70

Chen, H., Rahman, S., Buston, J., Reeve, P., Jones, S., Dowson, M., Abaza, A., Page, J. and Barai, A. (2026) [Experimental investigation of environmental test chamber resilience to unintended thermal runaway events in large-format prismatic lithium-ion batteries](#). *Journal of Energy Storage*, 174, 123193

Clarke, A., Saunders, J. and Grindle, K. (2026) [The effectiveness of integrated dust extraction units on hammer drills](#). *Annals of Work Exposures and Health*, 70(1), wxaf065

Fishwick, D., De Matteis, S., van Tongeren, M., Thompson, E., Heederik, D., Weldam, S., Szmytko, E., Denning, J., Curran, A. and Powell, P. (2026) [Using social media to highlight inhaled occupational exposures as a cause of lung disease](#). *Occupational and Environmental Medicine*, 83(4), 217–22

Gill, J., Buston, J., Howard, G., Goddard, S., Reeve, P. and Mellor, J. (2026) [Experimental investigations into the failure modes of different formats of lithium-ion cells and the potential impact on building materials](#). *Fire*, 9(6), 213

Gosling, R., Simpson, A., Bailey, C., Baldwin, P. and Lord, S. (2026) [Worker exposure to persistent organic pollutants, as polybrominated diphenyl ethers, and biological hazards during the processing of waste upholstered domestic seating in Great Britain](#). *Annals of Work Exposures and Health*, 70(1), wxaf066

Hall, S., Bard, D., Bussy, C. and van Tongeren, M. (2026) [A digital survey to understand the use of advanced materials in the United Kingdom](#). *Annals of Work Exposures and Health*, 70(3), wxag006

Hopf, N. et al including Jones K (2026) [A BEI for adipate esters – ACGIH seeks health effects data](#). *Journal of Occupational and Environmental Hygiene*, 23(4), 215–18

- Kufoin, E., Bannister, A., Brown, M., Engelberg, D., Kahlon, N., Scenini, F. and Zhou, Y. (2026) [Medium-cycle fatigue behavior of three metallic materials and a welded steel following gaseous hydrogen soaking](#). *Fatigue & Fracture of Engineering Materials & Structures*, 49(6), 2395–410
- Marx-Stoelting, P. et al including Brescia S (2026) [Regulation of chemicals demands assessment of risks rather than identification of hazards only](#). *Archives of Toxicology*, 100, 1181–85
- Mason, H. J., Warren, N., Jones, K., Sumner, J., Robinson, E., Barber, C. and Fishwick, D. (2026) [An exploratory cross-sectional study of serum biomarkers as related to respiratory outcomes and workplace silica exposure levels in UK brick-manufacturing and stone workers](#). *Annals of Work Exposures and Health* 70(6), wxag058
- Mecchia, M. et al including Stacey P and Musgrove D (2026) [Quantitative X-ray diffraction \(XRD\) analysis of quartz in bulk samples: Outcomes of an international interlaboratory test on three standardized methods](#). *Annals of Work Exposures and Health*, 70(2), wxaf084
- Navarro Law, I. et al including Fryer M (2026) [The prevalence and acceptability of mesocosm studies submitted for macrophytes in pesticide risk assessment](#). *Integrated Environmental Assessment and Management*, 22(2), 338–44
- Reeve, P., Buston, J., Howard, G., Goddard, S., Gill, J. and Mellor, J. (2026) [Real-time analysis of gases produced by induced failure of lithium-ion batteries](#). *Journal of Energy Storage*, 154, Part C, 12193
- Sanchez, C., Bannister, A. and Engleberg, D. (2026) [Towards understanding the effect of surface residual stress on atmospheric chloride-induced stress corrosion cracking of austenitic stainless steels](#). *Corrosion Science*, 271, 114087
- Taylor, C., Mottram, L., Ingram, J., Entwistle, J., Kordas, K., Lanphear, B., Golding, J. and Morton, J. (2026) [Lead and mercury exposure in pregnant women in the UK: A cross-sectional observational study \(The Pear Study\)](#) *Occupational and Environmental Medicine* 16(6) e114169
- van Kesteren, P. et al including Bard D and Butler O (2026) [Health-based nanomaterial guidance value \(HNGV\) for occupational exposure to spheroidal biodurable engineered nanomaterials of relatively low substance-specific toxicity](#). *NanoImpact*, 42, 100621

Conference Presentations

Bard, D., Hunwin, G., Hall, S., Morton, J. and Saunders, J. (2026) [84 The future of particulate matter low-cost sensor devices for emission and exposure measurements in occupational settings](#). *Annals of Work Exposure and Health*, 70(Suppl_1) wxag024.109 Poster presented at Inhaled Particles and International Particle Toxicology Conference, 11-14 May, Glasgow, UK

Beattie, H., Bowry, A., Baxter, N., Young, C. and Beanland, T. (2026) [Fit testing of CE marked ear loop respirators](#) OH2026 The Workplace Health Protection Conference, 16th-18th June 2026, Glasgow, UK

Bowsher, R., Macchiarulo, S., Brookes, J., Crook, B., Patel, K. and Marczylo, E. (2026) [73 Bacterial composition of settled dust samples across UK railway stations](#). *Annals of Work Exposure and Health*, 70(Suppl_1) wxag024.041. Oral abstract presented at Inhaled Particles and International Particle Toxicology Conference, 11-14 May, Glasgow, UK

Cameron, M. and Suleiman, A. M. (2026) [Beyond borders: Why international conferences matter in occupational hygiene](#) OH2026 The Workplace Health Protection Conference, 16th-18th June 2026, Glasgow, UK

Chaplin, Z. (2026) [Why updated probabilistic models matter in risk-based regimes](#). *FABIG Technical Meeting*, 25-25 March 2026: TM 111: From Research to Practice: Insights From Recent Projects on Hydrogen & Ammonia Safety

Hall, J., Zhang, J., Marczylo, T., Leese, E., Morton, J. and Laycock, A. (2026) [64 Early method development for exhaled breath condensate particle characterisation using single particle inductively coupled plasma mass spectrometry \(SPICP-MS\)](#) *Annals of Work Exposures and Health*, 70 (Supp 1) wxag024.109. Poster presented at Inhaled Particles and International Particle Toxicology Conference, May 2026, Glasgow, UK

Keen, C., Stacey, P., Owen, C., Calcutt, M., Hambling, S. and Sherlock, L. (2026) [Control of risk from stone dust containing high levels of crystalline silica](#). OH2026 The Workplace Health Protection Conference, 16th-18th June 2026, Glasgow, UK

Martell, S., Bard, D., Hemingway, M. and Saunders, J. (2026) [Analysis of the use of multiple affordable optical particle counters for workplace aerosol monitoring during wet hand polishing of engineered stones](#) OH2026 The Workplace Health Protection Conference, 16th-18th June 2026, Glasgow, UK

Smith, J., Leese, E., Morton, J. and Jones, K. (2026) [30 Exposure to nickel in UK workplaces](#). *Annals of Work Exposures and Health* 70 (Suppl_1) wxag024.85 Abstract presented at Inhaled Particles and the International Particle Toxicology Conference, May 2026, Glasgow, UK

van Kesteren, P. et al including Bard D and Butler O (2026) [101 Health-based nanomaterial guidance value \(HNGV\) for occupational exposure to spheroidal biodurable engineered nanomaterials of relatively low substance-specific toxicity](#). *Annals of Work*

Exposures and Health, 70 (Suppl 1) Oral abstract presented at Inhaled Particles and International Particle Toxicology Conference, May 2026, Glasgow, UK

Vizma, J. (2026) [Unignited LH2 pressure peaking phenomena](#). *FABIG Technical Meeting*, 25-25 March 2026: TM 111: From Research to Practice: Insights From Recent Projects on Hydrogen & Ammonia Safety

Welch, J. (2026) [Leakage and dispersion of liquid hydrogen in a tank connection space](#). *FABIG Technical Meeting*, 25-25 March 2026: TM 111: From Research to Practice: Insights From Recent Projects on Hydrogen & Ammonia Safety

Reports by HSE Scientists and Expert Committees

Bannister, A. and Newton, C. (2026) [RR1230: Update to HSE'S pipeline integrity model \(PIPIN\): Fracture toughness of pipeline steels in hydrogen](#). (RR1230) HSE

Chaplin, Z. (2026) [RR1229: Revised fireball and jet fire models for pipelines](#) (RR1229) HSE

Liddle, M., Goodwin, Z., Birtles, M., Williamson, C. and Eaton, S. (2026) [RR1228: Safety of stairs for limited access in dwellings: A mixed methods study](#). (RR1228) HSE

National and Official Statistics Publications

Health and Safety Executive (2026) [Exposure to lead in Great Britain 2024 to 2025.](#)

Health and Safety Executive (2026) [Fatal injuries arising from accidents at work in Great Britain: Summary for April to December 2025](#)

Health and Safety Executive (2026) [International comparisons of work-related fatal injuries, 2026 \(experimental statistics\)](#)

Health and Safety Executive (2026) [Mesothelioma and asbestosis mortality in Great Britain: 1968 to 2024.](#)

Health and Safety Executive (2026) [Pesticide usage survey report: Potato stores in the United Kingdom 2024.](#)

Health and Safety Executive (2026) [Work-related fatal injuries in Great Britain, April 2025 to March 2026.](#)

[Inside rear cover – leave blank – remove this text before publishing]

Further information

For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit [the HSE website](#).

You can order HSE priced publications at [the HSE books website](#).

HSE priced publications are also available from bookshops.

This publication is available on the HSE website [here](#) (author to insert hyperlink linking to the location of their document to replace word 'here' and delete this sentence).

© Crown copyright If you wish to reuse this information visit [the HSE website](#) for details. First published [MM/YY].

Published by the Health and Safety Executive [MM/YY].