

---

British Journal of

# INDUSTRIAL MEDICINE

---

Editor: H A Waldron

Assistant Editors: P J Baxter L Magos J C McDonald K M Venables

Technical Editor: N B Haynes

Editorial Committee:

M J Gardner

J A Lunn

G H G McMillan

A J Newman Taylor

D C Snashall

Editor, *British Medical Journal*

---

**NOTICE TO CONTRIBUTORS** The *British Journal of Industrial Medicine* is intended for the publication of original contributions relevant to occupational and environmental medicine, including fundamental toxicological studies of industrial and agricultural chemicals. Short papers relating to particular experience in occupational medicine may be submitted. Other short papers dealing with brief observations relevant to occupational medicine that do not warrant a full paper, such as individual case histories, preliminary reports, or modifications to analytical techniques, will also be considered. Extended book reviews may also be included but these should not be sent without first consulting the Editor. Review articles should also not be sent in unless the Editor has first been approached as to their suitability for the Journal. Letters to the Editor are always welcome.

All papers should be submitted in triplicate to The Editor, *British Journal of Industrial Medicine*, BMJ Publishing Group, BMA House, Tavistock Square, London WC1H 9JR. Each author must sign the covering letter as evidence of consent to publication. Papers reporting results of experiments on human subjects will not be considered unless the authors state explicitly that each subject gave his or her informed written consent to the procedure and that the protocol was approved by the appropriate ethical committee.

Papers are accepted on the understanding that they are contributed solely to this journal and are subject to editorial revision. The editor cannot enter into correspondence about papers rejected as being unsuitable for publication, and his decision is final. Papers should follow the requirements of the International Steering Committee of Medical Editors (*Br Med J* 1979;i:532-5). **Papers should be prefaced by an abstract of the argument and findings which should be more comprehensive than a summary. Papers and references must be typewritten on one side of the paper only, both in double spacing, and with a wide margin. Both SI units and their equivalents must be given throughout** (Baron *et al*, *J Clin Pathol* 1974;27:590-7). Photographs and photomicrographs on glossy paper should be submitted unmounted. Charts and graphs should be carefully drawn in black ink on tracing linen or Bristol board or stout white paper. Legends to figures should be typed on a separate sheet of paper.

**References will not be checked by the editorial office; responsibility for the accuracy and completeness of references lies with the author.** Number references consecutively in the order in which they are first mentioned in the text. Identify references in texts, tables, and legends by Arabic numerals above the line. References cited only in tables or in legends to figures should be numbered in accordance with a sequence established by the first identification in the text of a particular table or illustration. The number of references should be kept to the absolute minimum and only those essential to the argument being developed by the authors or to the discussion or if they describe methods which are being used

when the original is too long for inclusion. Usually one reference per typed page of manuscript should be sufficient.

Use the form of references adopted by *Index Medicus*—for instance, for a standard journal article: authors (list all authors when six or fewer, when seven or more, list only three and add *et al*), title, abbreviated title of journal, year of publication; volume number: **first and last page numbers**.

**Proofs** Contributors will receive one proof, but it is assumed that all but verbal corrections have been made in the original manuscript.

**Reprints** Reprints will be charged for; the number of reprints should be inserted on the form provided with the proofs.

**Copyright** © 1992 *British Journal of Industrial Medicine*. This publication is copyright under the Berne Convention and the International Copyright Convention. All rights reserved. Apart from any relaxations permitted under national copyright laws, no part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior permission of the copyright owners. Permission is not, however, required to copy abstracts of papers or of articles on condition that a full reference to the source is shown. Multiple copying of the contents of the publication without permission is always illegal.

**NOTICE TO ADVERTISERS** Applications for advertisement space and for rates should be addressed to the Advertisement Manager, *British Journal of Industrial Medicine*, BMJ Publishing Group, BMA House, Tavistock Square, London WC1H 9JR.

**NOTICE TO SUBSCRIBERS** *British Journal of Industrial Medicine* is published monthly. The annual subscription rates are £121 (USA \$219). Orders should be sent to the Subscription Manager, *British Journal of Industrial Medicine*, BMJ Publishing Group, BMA House, Tavistock Square, London WC1H 9JR. Orders may also be placed with any leading subscription agent or bookseller. (For the convenience of readers in the USA subscription orders with or without payment may also be sent to *British Medical Journal*, Box 560B, Kennebunkport, Maine 04046. All inquiries, however, must be addressed to the publisher in London). All inquiries regarding air mail rates and single copies already published should be addressed to the publisher in London.

Subscribers may pay for their subscriptions by Access, Visa, or American Express by quoting on their order the credit or charge card preferred together with the appropriate personal account number and the expiry date of the card.

Second class postage paid Rahway NJ. Postmaster: send address changes to: *British Journal of Industrial Medicine*, c/o Mercury Airfreight International Ltd Inc, 2323 Randolph Avenue, Avenel, NJ 07001, USA.

- l'amiante. *Poumon et la Coeur* 1983;39:283-6.
- 21 Begin R, Menard H, Decarie F, St-Sauveur A. Immunogenetic factors as determinant of asbestosis. *Lung* 1987;165:159-63.
  - 22 Libby DM, Gibofsky A, Fotino M, Waters SJ, Smith JP. Immunogenetic and clinical findings in idiopathic pulmonary fibrosis. *Am Rev Respir Dis* 1983;127:618-22.
  - 23 International Labour Office: *Guidelines for those of ILO international classification of radiographs for pneumoconiosis*. Geneva: ILO, 1980. (Occupational safety and health series No 22.)
  - 24 Amos DB, Pool P. HLA typing. In: Rose NR, Friedman HS, eds. *Manual of clinical immunology*. Washington, DC: American society for microbiology, 1976:797-804.
  - 25 Gibofsky A, Winchester RJ, Patarroyo M, Fotino M, Kunkel HG. Disease association of the Ia-like human alloantigens. Contrasting patterns in rheumatoid arthritis and systemic lupus erythematosus. *J Exp Med* 1978;148:1728-32.
  - 26 Terasaki PI. *Histocompatibility testing*. Los Angeles: UCLA Tissue Typing Laboratory, 1979: 18-20, 355, 509-511, 938.
  - 27 Vartdal F, Gandernack G, Fundernud S, Bratlie A, Lea T, Ugelstad J, Thorsby E. HLA class I and II typing using cells positively selected from blood by immunomagnetic isolation—a fast and reliable technique. *Tissue antigens* 1986; 28:302-12.
  - 28 Rose HM, Ragan C, Pearce E, Lipman MO. Differential agglutination of normal and sensitized sheep erythrocytes by sera of patients with rheumatoid arthritis. *Proc Soc Exp Biol Med* 1948;68:1.
  - 29 Singer JM, Plotz CM. The latex fixation test. I. Application to the serologic diagnosis of rheumatoid arthritis. *Am J Med* 1956;21:888-93.
  - 30 Sveigaard A, Jersild C, Staub Nielson L, Bodmer WF. HLA-A Antigens and disease—Statistical and genetic considerations. *Tissue Antigens* 1974;4:94-105.
  - 31 Sidak Z. Rectangular confidence regions for the means of multivariate normal distributions. *Journal of The American Statistical Association* 1967;62:626-33.
  - 32 Dunn OJ. On multiple tests and confidence intervals. *Communication in Statistics* 1974;3:101-3.
  - 33 Staples CA, Gamsu G, Ray CS, Webb WR. High resolution computed tomography and lung function in asbestos workers with normal chest radiograph. *Am Rev Respir Dis* 1989;139: 1502-8.
  - 34 Lozewicz S, Renznek RH, Herdman M, Dacie JE, McLean A, Davies RJ. Role of computed tomography in evaluating asbestos related lung disease. *Br J Ind Med* 1989;46:777-81.
  - 35 Woolf B. On estimating the relation between blood group and disease. *Ann Hum Genet* 1955;19:251-3.
  - 36 Weiss W. Cigarette smoking, asbestos, and pulmonary fibrosis. *Am Rev Respir Dis* 1971;104:223-7.
  - 37 Weiss W, Theodas PA. Pleuropulmonary disease among asbestos workers in relation to smoking and type of exposure. *J Occup Med* 1978;20:341.
  - 38 Lillis R, Selikoff IJ, Lerman Y, Seidman H, Gelb SK. Asbestosis: Interstitial pulmonary fibrosis and pleural fibrosis in a cohort of asbestos insulation workers: Influence of cigarette smoking. *Am J Ind Med* 1986;10:459-70.

Accepted 17 February 1992

## Correspondence and editorials

The *British Journal of Industrial Medicine* welcomes correspondence relating to any of the material appearing in the journal. Results from preliminary or small scale studies may also be published in the correspondence column if this seems appropriate. Letters should be not more than 500 words in length and contain a minimum of references. Table and figures should be kept to an absolute minimum. Letters are accepted on the

understanding that they may be subject to editorial revision and shortening.

The journal now also publishes editorials which are normally specially commissioned. The Editor welcomes suggestions regarding suitable topics; those wishing to submit an editorial, however, should do so only after discussion with the Editor.

- 5 Sprince NL, Oliver LC, Eisen EA, Greene RE, Chamberlin RI. Cobalt exposure and lung disease in tungsten carbide production. *Am Rev Respir Dis* 1988;138:1220-6.
- 6 Gilbert R, Auchincloss JH Jr. The interpretation of the spirogram. How accurate is it for obstruction? *Arch Intern Med* 1985;185:1835-1839.
- 7 Crapo RO, Morris AH, Gardner RM. Reference spirometric values using techniques and equipment that meets ATS recommendations. *Am Rev Respir Dis* 1981;123:659-64.
- 8 Crapo RO, Morris AH, Clayton PD, Nixon CR. Lung volumes in healthy non-smoking adults. *Bulletin de Physio-pathologie Respiratoire* 1982;18:419-25.
- 9 Pelzer AM, Thompson ML. Effect of age, sex, stature, and smoking habits on human airway conductance. *J Appl Physiol* 1966;21:469-76.
- 10 Abraham JL, Burnett BR. Quantitative in situ analysis of inorganic particulate burden in tissue sections—an update. In: Ingram P, Shelburne J, Roggli Z, eds. *Microprobe analysis in medicine*, Hemisphere Publishing Corporation, 1989:111-31.
- 11 Fischbein AL, Abraham JL, Horowitz SF, et al. Hard metal disease: a multidisciplinary evaluation of two cases. *New York State Journal of Medicine* 1986;86:600-3.
- 12 Liebow AA. Definition and classification of interstitial pneumonias in human pathology. *Prognosis in Respiratory Research* 1975;8:1-33.
- 13 Meyer-Bisch C, Pharm QT, Massin N, et al. Respiratory hazards in hard metal workers: a cross sectional study. *Br J Ind Med* 1989;46:302-9.
- 14 Abraham JL, Burnett BR, Hunt A. Development and use of a pneumoconiosis data base of human pulmonary inorganic particulate burden in over 400 lungs. *Scanning Microscopy* 1991;5:95-108.

Accepted 17 February 1992

## Vancouver style

All manuscripts submitted to the *Br J Ind Med* should conform to the uniform requirements for manuscripts submitted to biomedical journals (known as the Vancouver style).

The *Br J Ind Med*, together with many other international biomedical journals, has agreed to accept articles prepared in accordance with the Vancouver style. The style (described in full in *Br Med J*, 24 February 1979, p 532) is intended to standardise requirements for authors.

References should be numbered consecutively in the order in which they are first mentioned in the text by Arabic numerals above the line on each occasion the reference is cited (Manson<sup>1</sup> confirmed other reports<sup>2-5</sup> . . .). In future references to papers submitted to the *Br J Ind Med* should include: the

names of all authors if there are six or less or, if there are more, the first three followed by *et al*; the title of journal articles or book chapters; the titles of journals abbreviated according to the style of *Index Medicus*; and the first and final page numbers of the article or chapter.

Examples of common forms of references are:

- 1 International Steering Committee of Medical Editors. Uniform requirements for manuscripts submitted to biomedical journals. *Br Med J* 1979;1:532-5.
- 2 Soter NA, Wasserman SI, Austen KF. Cold urticaria: release into the circulation of histamine and eosino-phil chemotactic factor of anaphylaxis during cold challenge. *N Engl J Med* 1976;294:687-90.
- 3 Weinstein L, Swartz MN. Pathogenic properties of invading micro-organisms. In: Sodeman WA Jr, Sodeman WA, eds. *Pathologic physiology: mechanisms of disease*. Philadelphia: W B Saunders, 1974:457-72.

- 26 Liddell FDK. Laryngeal cancer and asbestos. *Br J Ind Med* 1990;47:289-91.
- 27 Smith AH, Handley MA, Wood R. Epidemiological evidence indicates asbestos causes laryngeal cancer. *J Occup Med* 1990;32:499-507.
- 28 Edelman DA. Laryngeal cancer and occupational exposure to asbestos. *Arch Occup Environ Health* 1989;61:223-7.
- 29 Kerns WD, Pavkov KL, Donofrio DJ, Gralla EJ, Swenberg JA. Carcinogenicity of formaldehyde in rats and mice after long-term inhalational exposure. *Cancer Res* 1983;43:4382-92.
- 30 Sellakumar AR, Snyder CA, Salomon JJ, Albert RE. Carcinogenicity of formaldehyde and hydrogen chloride in rats. *Toxicol Appl Pharmacol* 1985;81:401-6.
- 31 Dalls CE, Theiss JC, Harris RB, Fairchild EJ. Effect of subchronic formaldehyde inhalation on minute volume and nasal deposition in Sprague Dawley rats. *J Toxicol Environ Health* 1985;16:553-64.
- 32 Partanen T, Kaupinnen T, Nurminen M, et al. Formaldehyde exposure and respiratory related cancers. *Scand J Work Environ Health* 1985;11:409-15.
- 33 Libeling T, Rosenman KD, Pastides H, Griffith RG, Lemeshow S. Cancer mortality among workers exposed to formaldehyde. *Am J Ind Med* 1984;5:423-8.
- 34 Acheson ED, Gardner MJ, Pannett B, Barnes HR, Osmond C, Taylor CP. Formaldehyde in the British chemical industry. *Lancet* 1984;iii:611-6.
- 35 Blair A, Stewart P, O'Berg M, et al. Mortality among industrial workers exposed to formaldehyde. *J Natl Cancer Inst* 1986;76:1071-84.
- 36 Walrath J, Fraumeni J. Mortality patterns among embalmers. *Int J Cancer* 1983;31:407-11.
- 37 Walrath J, Fraumeni J. Cancer and other causes of death among embalmers. *Cancer Res* 1984;44:4638-41.

Accepted 2 March 1992

### **Destruction of manuscripts**

From 1 July 1985 articles submitted for publication will not be returned. Authors whose papers are rejected will be advised of the decision and the manuscripts will be kept under security for three months to deal with any inquiries and then destroyed.

As mercury primarily targets the S3-segment of the human proximal tubule,<sup>4</sup> our study validated the segment specificity of IAP. We believe that IAP is a more sensitive indicator of renal effects in workers exposed to mercury than NAG and TNAP because even at exposures well under the proposed threshold values (50 µg/g creatinine) IAP excretion was significantly increased and related to the exposure (U-Hg). This sensitivity could be the result of the segment specificity of this marker, thus expressing specific changes that may go undetected by other less specific markers such as NAG, present in the proximal tubules as well as in deeper parts of the nephron.<sup>5</sup> In a test battery applied in workers exposed to mercury, IAP can be a useful addition. As for all other early renal markers, the clinical relevance and predictive value remain unknown and a multicentre European study, Science and Technology for Environment Protection (STEP) has been set up. In STEP I (1989-90) a battery of more than 25 tests of renal function were studied in more than 1000 workers exposed to different potential nephrotoxins including mercury, solvents, cadmium, and lead. STEP II (1991-93) is a follow up study of workers in which the long term effects of a selected battery of relevant tests will be determined. This study will give some clues as to the clinical predictability of selected renal tests in the context of environmental pollution.

G D NUYTS  
ME DE BROE

Department of Nephrology—Hypertension,  
University of Antwerp,  
Belgium

- 1 Nuyts GD, Roels HA, Verpoeten GF, Bernard AM, Lauwerys RR, De Broe ME. Intestinal-type alkaline phosphatase in urine as an indicator of mercury induced effects on the S3-segment of the proximal tubule. *Nephrol Dial Transplant* 1992;7: 225-9.
- 2 Verpoeten GF, Nouwen EJ, Hoylaerts MF, Hendrix PG, De Broe ME. Segment-specific localisation of intestinal-type alkaline phosphatase in human kidney. *Kidney Int* 1989; 36:617-25.
- 3 Verpoeten GF, Nuyts GD, Hoylaerts MF, et al. Immunoassay in urine of a specific marker for the human proximal tubular S3-segment. *Clin Chem* 1992;38:642-7.
- 4 Bulger RE. Renal damage caused by heavy metals. *Toxicol Pathol* 1986; 14:58-65.
- 5 Guder WG, Ross BD. Enzyme distribution along the nephron. *Kidney Int* 1984;24:101-11.

## NOTICES

**Minesafe International 1993—The second international conference on occupational health and safety in the minerals industry**, Burswood Convention Centre, Perth, Western Australia, 21-26 March 1993.

This event provides the mining industry with a major international forum for the exchange of ideas and developments in occupational health and safety.

The theme of the conference will be "from principals to practice", with the object of facilitating the subsequent implementation of practices throughout the industry that are discussed and examined at the conference. Among the major safety issues to be explored in the plenary sessions of the conference will be: health and safety management at the workplace; man and machinery; accident causation and solutions; lifestyle and health promotion; workplace hazards and their control; future regulation of occupational health and safety in the mining industry.

Workshop sessions will follow some plenary sessions to allow individual topics to be dealt with in greater detail. An exhibition will be staged in association with the conference. Full details can be obtained from: Mr John W Brown, Public Relations Officer, Government of Western Australia, 115 Strand, London WC2R 0AJ. Telephone (071) 240 2881; Fax (071) 240 6637.

**The Royal Society of Chemistry environment and toxicology subject groups in association with the health and safety group of the Society of Chemical Industry—the laboratory environment: working with dangerous substances**, Tuesday 30 March 1993 at the Scientific Societies Lecture Theatre, Burlington Place (Off Savile Row), London.

The handling and disposal of noxious substances (chemical, radiochemical, and biological) can present a variety of hazards and risks both for laboratory personnel and the environment, and are subject to regulatory control through the implementation of the COSHH Regulations 1988, the

Environmental Protection Act 1990, and the Health and Safety at Work Etc Act 1974, among other legal requirements.

In this symposium techniques for the safe handling and disposal of potentially dangerous and reactive substances will be reviewed, together with the health and insurance implications of working with these materials in the laboratory. Improvements in control and personal protection measures through advances in laboratory design will also be discussed.

This symposium will be of value to laboratory managers, and safety and environment officers in industry, research institutes, and government departments.

Further information may be obtained from Pauline A Sim, Gascoigne Secretarial Services, 24 Southfield Drive, Hazlemere, High Wycombe, Bucks HP15 7HB. Tel: 0494 713664; fax 0494 714516.

**University of Cincinnati, NIOSH Educational Resource Center: Environmental and Occupational Health & Safety continuing education courses. January-July 1993 513/558-1730**

**Pulmonary function testing: NIOSH approved spirometry (NIOSH 010) 5-7 April, 1993; 12-14 July, 1993 (Summer Institute).**

All aspects of screening spirometry in the occupational health and outpatient setting are presented through lectures and laboratories, with hands on experience. Successful completion of this course satisfies government training requirements for certain industries. 2.1 CEUs. Call 513/558-1730 for information. Fee: \$395 (\$495 when taken with interpretation of PFT), \$445—Summer Institute.

**Interpretation of pulmonary functions tests, 15 July, 1993**

This course provides additional pulmonary function training for practising professionals. The focus is on interpretation of test results and reviewing the latest changes and updates in pulmonary function testing. 0.7 CEUs. Call 513/558-1730 for information. Fee: \$125 (\$495 when taken with PFT).

**Building inspection procedures/management planner training 25–29 January, 1993; 19–23 April, 1993; 10–14 May, 1993.**

This five day training course has full EPA AHERA approval for asbestos building inspector and management planner training. Courses consist of lectures, hands on workshops, a field trip, and two examinations. Courses are offered in cities throughout Ohio. 5 ABIH points, 3.5CEUs. Call 513/558-1730 for information. Fee: \$875 (includes lunch).

**Building Inspector/management planner refresher training, 22 February, 1993; 19 April, 1993; 10 May, 1993; 14 June, 1993; 21 July, 1993; (Summer Institute).**

This one day refresher course meets EPA AHERA requirements for asbestos building inspector and management planner refresher training. Courses are offered in cities throughout Ohio. 0.7. CEUs, 1 ABIH point. Call 513/558-1730 for information. Fee: \$190 (includes lunch).

**Contractor/supervisor asbestos abatement practice, 26–29 January, 1993; 20–23 April, 1993; 11–14 May, 1993**

This four day training course has full EPA AHERA approval for asbestos abatement contractor and supervisor training. Courses consist of lectures, hands on workshops, and one examination. Courses are offered in cities throughout Ohio. 4 ABIH points, 2.8 CEUs. Call 513/558-1730 for information. Fee: \$735 (includes lunch).

**Contractor/supervisor asbestos abatement practices refresher, 23 February, 1993; 20 April 1993; 11 May, 1993; 15 June, 1993; 22 July, 1993 (Summer Institute).**

This one day training course meets EPA AHERA requirements for asbestos abatement contractor and supervisor refresher training. Courses are offered in cities throughout Ohio 0.7 CEUs, 1 ABIH point. Call 513/558-1730 for information. Fee: \$190 (includes lunch).

**Asbestos abatement project designer training, 20–23 April, 1993; 11–14 May, 1993**

This four day training fulfills requirements for EPA AHERA

project designer training. It covers all aspects of asbestos abatement project design from abatement specifications and preparing abatement drawings to industrial and occupied building special considerations. Hands on workshops, complete NIBS specifications, a field trip, and a 100 question exam are included. 2.8 CEUs, 3 ABIH points. Call 513/558-1730 for information. Fee: \$750 (includes lunch).

**Asbestos abatement project designer refresher course, 12 May, 1993; 23 July 1993 (Summer Institute).**

This one day training course meets EPA AHERA requirements for asbestos abatement project designer refresher training. Courses are offered in cities throughout Ohio. 0.7 CEUs, 1 ABIH point. Call 513/558-1730 for information. Fee: \$190 (includes lunch).

**Comprehensive review for industrial hygiene professionals, 8–12 March, 1993; 29 March–2 April, 1993; 9–13 August, 1993; 23–27 August, 1993.**

Designed for those studying for the ABIH certification exams. Twice daily quizzes will help students identify areas for further study. Lectures cover the entire field of industrial hygiene. Registration is limited, so please register early. 4.0 CEUs. Call 513/558-1730 for information. Fee: \$695.

**Occupational medicine training course (formerly “Mini-residency in occupational medicine for physicians”), 22–26 March, 1993; 7–18 June, 1993.**

This programme provides an overview of the broad specialty of occupational medicine for physicians currently practicing occupational medicine or planning to do so. The course begins with two weeks in June and continues with one week sessions in October and March. 111 Category 1 credits by AMA, 111 Prescribed credits by AAFP, 111 Category 2A by AOA, 111 Category 1 credits by ACEP. Call 513/558-0046 for information. Fee: One week sessions \$925 each; Two-week session \$1850.

**Occupational ergonomics, 22–24 February, 1993; 12–14 July, 1993 (Summer Institute).**

The application of ergonomic principles to ensure worker health, safety, and productivity is emphasized. All aspects of the work environment including design of tools and equipment and how they are used, design of work schedules, and training of workers, will be discussed in lecture and hands on workshops. 3 ABIH points, 2.1 CEUs. Call 513/558-1730 for information. Fee: \$625 (\$1000 if taken with “ergonomic control programmes to prevent injuries in industry” (25–26 February, 1993, or 15–16 July, 1993).

**Ergonomic control programmes to prevent injuries in industry, 25–26 February, 1993; 15–16 July 1993 (Summer Institute).**

Participants will learn to anticipate and identify conditions which result in back injuries. Medical treatment and management will be presented. Trainees will learn to use established guidelines and computer modelling for evaluating situations which may cause back injuries. Strategies for prevention will be explored in classroom discussion by using case studies and laboratory demonstrations. Call 513/558-1730 for information. 1.4 CEUs, 2.0 ABIH points. Fee: \$475 (\$1000 if taken with “occupational ergonomics” 22–24 February, 1993 or 12–14 July, 1993).

**Practical ergonomic risk assessment 19–20 July, 1993 (Summer Institute).**

This course will enable the participants to assess the risk of worker exposure to cumulative trauma disorders in industry. Guidelines for ergonomic task analysis will be introduced, then followed with the structure of the ergonomic risk assessment system and the methods used to estimate task requirements. Call 513/558-1730 for information. 1.4 CEUs 1.4 CSPs, ABIH points applied for. Fee: \$395 (\$1000 if taken with “occupational ergonomics”, \$850 if taken with ergonomic control . . . ,” or \$1450 if taken with both), \$500 for Summer Institute.

**Fundamentals of occupational safety & health compliance, 15–19 February, 1993; 12–16 July, 1993 (Summer Institute).**

This five day course is an overview of the activities and duties of the person responsible for safety compliance in business, industry, or government. It will provide information about regulatory compliance, accident and injury prevention, controlling liability and risk assessment, and cost containment. Call 513/558-1730 for more information. 3.5 CEUs, ABIH Points applied for Fee: \$850.

**Industrial ventilation, 11–13 January, 1993; 12–14 July, 1993 (Summer Institute).**

This three day course provides the participant with a detailed working knowledge of basic airflow principles, local exhaust system design procedures, dilution ventilation system design, fan selection principles, and air cleaner selection. Call 513/558-1730 for more information. 2.1 CEUs, 3 ABIH points; Fee: \$495 (\$850 if

taken with "indoor air quality"), \$545—Summer Institute.

**Indoor air quality, 14–15 January, 1993; 15–16 July, 1993 (Summer Institute).**

This two day course provides the participant with an overview of the indoor air quality problem as it exists in this country. Indoor air quality problems in institutional, office, and industrial environments are discussed. Call 513/558-1730 for more information. 1.4 CEUs, 2 ABIH points. Fee: \$395 (\$850 if taken with "industrial ventilation"), \$425—Summer Institute.

**International symposium on health hazards of butadiene and styrene, Espoo, Finland, 18–21 April, 1993.**

Both butadiene and styrene are important industrial chemicals which may also occur as contaminants in the environment. They share similar toxicological properties, and both are metabolised into biologically active intermediates. New research data on their potential carcinogenic and gen-

otoxic characteristics highlight the concern for preventive measures.

The purpose of this symposium is to serve as a scientific state of the art meeting, enabling improved prevention strategies for occupational as well as environmental exposures to these important chemicals.

The symposium is organised by the Finnish Institute of Occupational Health (FIOH) in collaboration with the International Agency for Research on Cancer (IARC) and the Commission of the European Communities (CEC).

The scientific programme will consist of invited lectures, free communications, and poster sessions around the themes exposure assessment, hazard assessment, and risk assessment. Ample time will be reserved for discussion.

For further information, contact: the Symposium Secretariat, International Symposium on Health Hazards of Butadiene and Styrene, Finnish Institute of Occupational Health, Topeliuksenkatu 41aA, SF-00250 Helsinki, Finland. Tel: +358-0-4747470. Fax: +358-0-4747548. Telex: 121394 occuphealth sf.

# INDEX TO VOLUME 49, 1992

Note: All conferences, notices and other announcements are under one heading: NOTICES

## A

- AASE G *see* FLODMARK B T and AASE G  
 ABRAHAM J L *see* AUCHINCLOSS J H *et al*  
 ACQUAVELLA J F *see* SHALLENBERGER L G *et al*  
 AGIUS R, RIDDLE H F V, SEATON A: Occupational health in the new NHS: *correspondence*, 872  
 AHLANDER A *see* JOHARD U *et al*  
 AITIO A *see* ERKKILÄ J *et al*  
 AL JARAD N  
   MACEY M, UTHAYAKUMAR S, NEWLAND A C, RUDD R M: Lymphocyte subsets in subjects exposed to asbestos: changes in circulating natural killer cells: *short report*, 811  
   UTHAYAKUMAR S, BUCKLAND E J, GREEN T S, ORD J, NEWLAND A C, RUDD R M: The histocompatibility antigen in asbestos related disease, 826  
   WILKINSON P, PEARSON M C, RUDD R M: A new high resolution computed tomography scoring system for pulmonary fibrosis, pleural disease, and emphysema in asbestos related disease, 73  
 AL-KASSIMI F A: Pleural effusion in silicosis of the lung, 448  
 ALBIN M  
   ENGHÖLM G, FRÖSTRÖM K, KHEDDACHE S, LARSSON S, SWANTESSON L: Chest x ray films in construction workers: International Labour Office (ILO 1980) classification compared with routine readings, 862  
   *see also* JOHANSSON L *et al*  
 ALEXANDERSSON R *see* JOHARD U *et al*  
 ALLEN J A, DOHERTY C C, MCGRANN S: Objective testing for vasospasm in the hand-arm vibration syndrome, 688  
 ALMKVIST O *see* LANGWORTH S *et al*  
 ANTILA S *see* TUOMI T *et al*  
 AOYAMA K  
   UEDA A, MANDA F, MATSUSHITA T, UEDA T, YAMAUCHI C: Allergy to laboratory animals: an epidemiological study, 41  
   *see also* UEDA A *et al*  
 ARBORELIUS M *see* HJORTSBERG U *et al*  
 ARMSTRONG R  
   CHETTLE D R, SCOTT M C, BLINDT M, MASON H J: Longitudinal studies of exposure to cadmium, 556  
   CHETTLE D R, SCOTT M C, SOMERVILLE L J, PENDLINGTON M: Repeated measurements of tibia lead concentrations by in vivo x ray fluorescence in occupational exposure, 14  
   *see also* ERKKILÄ J *et al*  
 ARTESE L *see* CARMIGNANI M *et al*  
 ASAEDA N *see* HUANG J *et al*  
 ASSENNATO G *see* PORRO A *et al*  
 AUCHINCLOSS J H, ABRAHAM J L, GILBERT R, LAX M, HENNEBERGER P K, HEITZMAN E R, PEPI D J: Health hazard of poorly regulated exposure during manufacture of cemented tungsten carbides and cobalt, 832

AXELSON O *see* COMBA P *et al*  
 GUNNARSSON L-G *et al*

## B

- BAGCHI N: What makes silica toxic?, 163  
 BAILEY W J *see* DAGG T G *et al*  
 BAJGAR J: Biological monitoring of exposure to nerve agents, 648  
 BARBIERI P G *see* COMBA P *et al*  
 BARTOLUCCI G B *see* MARCER G *et al*  
 BATTIGELLI M C *see* RANAVAYA M I *et al*  
 BATTISTA G *see* COMBA P *et al*  
 BEALE N, NETHERCOTT S: A critical review of the effect of factory closures on health: *correspondence*, 70  
 BECKER P J *see* REES D *et al*  
 BELLI S *see* COMBA P *et al*  
 BELLUCO U *see* MARCER G *et al*  
 BENTUR L *see* RUBIN A E *et al*  
 BENTUR Y *see* RUBIN A E *et al*  
 BERNARDI G *see* MARCER G *et al*  
 BERNHOLZ C D *see* MUIR D C F *et al*  
 BETRAND J P *see* CHAU N *et al*  
 BETTA A *see* BRUGNONE F *et al*  
 BEZUIDENHOUT B N *see* SLUIS-CREMER G K *et al*  
 BIERSTEEKER K *see* HEEDERIK D *et al*  
 BIGNON J *see* VALLERON A-J *et al*  
 BINZ H *see* DIOT P *et al*  
 BLAIR A *see* ZAHM S H *et al*  
 BLINDT M *see* ARMSTRONG R *et al*  
 BLOT W J *see* MCLAUGHLIN J K *et al*  
 BODIN L *see* GUNNARSSON L-G *et al*  
 BOECKX M *see* OFFERGELT J A *et al*  
 BOEY K W *see* NGIM C H *et al*  
 BOLAY J *see* GUBÉRAN E *et al*  
 BONDE J P: Semen quality in welders exposed to radiant heat, 5  
 BONIFACE M *see* CEZARD C *et al*  
 BORGERSEN A *see* SKYBERG K *et al*  
 BOSCHI S *see* DUJIC Z *et al*  
 BOSCOLO P *see* CARMIGNANI M *et al*  
 BOURBONNAIS R, VINET A, VÉZINA M, GINGRAS S: Certified sick leave as a non-specific morbidity indicator: a case-referent study among nurses, 673  
 BRENNER S *see* GANOR E *et al*  
 BROCHARD P *see* VALLERON A-J *et al*  
 BROGDEN K A *see* DE LUCCA A J *et al*  
 BRUGNONE F, MARANELLI G, ZOTTI S, ZANELLA I, DE PARIS P, CAROLDI S, BETTA A: Blood concentration of carbon disulphide in "normal" subjects and in alcoholic subjects treated with disulfiram, 658  
 BUCHET J P  
   GENNART J P, MERCADO-CALDERON F, DELAVIGNETTE J P, CUPERS L, LAUWERYS R: Evaluation of exposure to polycyclic aromatic hydrocarbons in a coke production



- and a graphite electrode manufacturing plant: assessment of urinary excretion of 1-hydroxypyrene as a biological indicator of exposure, 761  
*see also* OFFERGELT J A *et al*; ROELS H A *et al*
- BUCKLAND E J *see* AL JARAD N *et al*
- BUCKLEY T J, LLOYD P J: An examination of the time course from human dietary exposure to polycyclic aromatic hydrocarbons to urinary elimination of 1-hydroxypyrene, 113
- BURDETT G J *see* VALLERON A-J *et al*
- BUREMA J *see* HEEDERIK D *et al*
- BURGE P S *see* GANNON P F G *et al*
- BURKHART G A *see* EGELAND G M *et al*
- BUTLER T *see* JENKINS R *et al*

## C

- CALISTI R, DE GIULI P, GHIONE G L: An update of cancer mortality among chrysotile asbestos miners in Balangero, northern Italy: *correspondence*, 144
- CAMP J *see* CHECKOWAY H *et al*
- CAMPOSAMPIERO A *see* MARCER G *et al*
- CARMIGNANI M, BOSCOLO P, ARTESE L, DEL ROSSO G, PORCELLI G, FELACO M, VOLPE A R, GIULIANO G: Renal mechanisms in the cardiovascular effects of chronic exposure to inorganic mercury in rats, 226
- CAROLDI S *see* BRUGNONE F *et al*
- CASE B W *see* DEGUIRE L *et al*
- CAZZADORI A, MALESANI F, ROMEO L: Malignant pleural mesothelioma caused by non-occupational childhood exposure to asbestos, 599
- CEULEMANS E *see* ROELS H A *et al*
- CEZARD C, DEMARQUILLY C, BONIFACE M, HAGUENOER J M: Influence of the degree of exposure to lead on relations between alcohol consumption and the biological indices of lead exposure: epidemiological study in a lead acid battery factory, 645
- CHAN E *see* EHRLICH R *et al*
- CHAN J *see* MUIR D C F *et al*
- CHAU N, BERTRAND J P, GUENZI M, MAYER L, TÈCULESCU D, MUR J M, PATRIS A, MOULIN J J, PHAM Q T: Lung function in retired coke oven plant workers, 316
- CHECKOWAY H, COSTA L G, CAMP J, COCCINI T, DANIELL W E, DILLS R L: Peripheral markers of neurochemical function among workers exposed to styrene, 560
- CHERNIACK M G *see* LETZ R *et al*
- CHERRY N M  
 LABRÈCHE F P, McDONALD J C: Organic brain damage and occupational solvent exposure, 776  
*see also* LABRÈCHE *et al*
- CHETTLE D R *see* ARMSTRONG R *et al*
- CHETTLE D R *see* ERKKILÄ J *et al*  
 GERHARDSSON L *et al*
- CHIA K S *see* NG T P *et al*
- CHIAZZE L, WATKINS D K, FRYAR C: A case-control study of malignant and non-malignant respiratory disease among employees of a fibreglass manufacturing facility, 326
- CHIBA M, SHINOHARA A: Inhibition of erythrocyte 5-aminolaevulinic acid hydrolyase activity by tin and its prevention by selenite, 355
- CHRISTENSEN C C *see* SKYBERG K *et al*
- CLAVEL-CHAPELON F *see* LAPLANCHE A *et al*
- COCCINI T *see* CHECKOWAY H *et al*
- COLES G V: Byssinosis in developing countries: *correspondence*, 872

- COLES R R A *see* HINCHCLIFFE R *et al*
- COMBA P, BARBIERI P G, BATTISTA G, BELLI S, PONTERIO F, ZANETTI D, AXELSON O: Cancer of the nose and paranasal sinuses in the metal industry: a case-control study, 193
- CONTASSOT J-C *see* LAPLANCHE A *et al*
- CORATELLI P *see* PORRO A *et al*
- CORDÓN M *see* MCCONNELL R *et al*
- COSTA G *see* RONCO G *et al*
- COSTA L G *see* CHECKOWAY H *et al*
- COWLES S R *see* TSAI S P *et al*
- CRONJE R *see* REES D *et al*
- CROOK B *see* TEE R D *et al*
- CUPERS L *see* BUCHET J P *et al*
- CYR D *see* DEGUIRE L *et al*

## D

- DAGG T G, SATIN K P, BAILEY W J, WONG O, HARMON L L, SWENCICKI R E: An updated cause specific mortality study of petroleum refinery workers, 203
- DAHLQVIST M *see* JOHARD U *et al*
- DALLY S *see* FALLAS C *et al*
- DANIELL W E *see* CHECKOWAY H *et al*
- DAVIS S *see* WORTLEY P *et al*
- DE BROE M E *see* NUYTS G D AND DE BROE M E
- DE GIULI P *see* CALISTI R *et al*
- DE KLERK N H *see* MUSK A W *et al*
- DE LUCCA A J, BROGDEN K A, FRENCH A D: Agglutination of lung surfactant with glucan, 755
- DE PARIS P *see* BRUGNONE F *et al*
- DE ZOTTI R, LARESE F, FIORITO A: Asthma and contact urticaria from latex gloves in a hospital nurse, 596  
*see also* LARESE F *et al*
- DEGUIRE L, CYR D, THÉRIAULT G, PROVENCHER S, ITURRA H, CASE B W: Malignant melanoma of the skin among workers in a telecommunications industry: a mortality study 1976-83, 728
- DEL ROSSO G *see* CARMIGNANI M *et al*
- DELAVIGNETTE J P *see* BUCHET J P *et al*
- DEMARQUILLY C *see* CEZARD C *et al*
- DEMERS P A, HEYER N J, ROSENSTOCK L: Mortality among firefighters from three northwestern United States cities, 664
- DENOBLE P *see* DUJIC Ž *et al*
- DESCHAMPS D, ROSENBERG N, SOLER P, MAILLARD G, FOURNIER E, SALSON D, GERVAIS P: Persistent asthma after accidental exposure to ethylene oxide, 523
- DILLS R L *see* CHECKOWAY H *et al*
- DIOT P, LE PAPE A, NOLIBE D, NORMIER G, BINZ H, REVILLARD J P, LASFARGUES G, LAVANDIER M, LEMARIÉ E: Scintigraphy with <sup>100</sup>Tc, a Klebsiella membrane glycolipid, for the early diagnosis of chronic berylliosis: results from an experimental model, 359
- DOHERTY C C *see* ALLEN J A *et al*
- DONALESKI D *see* SHALLENBERGER L G *et al*
- DONCHIN M, SHOUVAL D: Occupational and non-occupational hepatitis B virus infection among hospital employees in Jerusalem: a basis for immunisation strategy, 620
- DOSEMECI M *see* MCLAUGHLIN J K *et al*
- DOSMAN J A *see* ZEJDA J E *et al*
- DOWD C M *see* TSAI S P *et al*
- DRISCOLL T R, HAMDAN H H, WANG G, WRIGHT P F A, STACEY N H: Concentrations of individual serum or plasma bile acids in workers exposed to chlorinated aliphatic hydrocarbons, 700
- DU TOIT R S J *see* REES D *et al*

## Dujć Ž

- ETEROVIĆ D, DENOBLE P, KRSTAČIĆ G, TOCILJ J: Lung diffusing capacity in a hyperbaric environment: assessment by a rebreathing technique, 254  
 TOCILJ J, BOSCHI S, ŠARIĆ M, ETEROVIĆ D: Biphasic lung diffusing capacity: detection of early asbestos induced changes in lung function, 260

## E

- EGELAND G M, BURKHART G A, SCHNORR T M, HORNUNG R W, FAJEN J M, LEE S T: Effects of exposure to carbon disulphide on low density lipoprotein cholesterol concentration and diastolic blood pressure, 287  
 EHRlich R, LILIS R, CHAN E, NICHOLSON W J, SELIKOFF I J: Long term radiological effects of short term exposure to amosite asbestos among factory workers, 268  
 EISEN E A *see* HU X *et al*  
 EKHOLM U *see* JOHARD U *et al*  
 EKLUND A *see* JOHARD U *et al*  
 ELINDER C G *see* LANGWORTH S *et al*  
 ENGHOLM G *see* ALBIN M *et al*  
 ENGLYST V *see* GERHARDSSON L *et al*  
 ERFURTH E M *see* SVENSSON B-G *et al*  
 ERIKSSON M, KARLSSON M: Occupational and other environmental factors and multiple myeloma: a population based case-control study, 95  
 ERKKILÄ J, ARMSTRONG R, RIIHIMAKI V, CHETTLE D R, PAAKKARI A, SCOTT M, SOMERVILLE L, STARCK J, KOCK B, AITTO A: In vivo measurements of lead in bone at four anatomical sites: long term occupational and consequent endogenous exposure, 631  
 ERNHART C B, GREENE T: Postpartum changes in maternal blood lead concentrations, 11  
 ESTRYN-BEHAR M *see* SAUREL-CUBIZOLLES M J *et al*  
 ETEROVIĆ D *see* DUJĆ Ž *et al*

## F

- FAJEN J M *see* EGELAND G M *et al*  
 FALLAS C, FALLAS J, MASLARD P, DALLY S: Subclinical impairment of colour vision among workers exposed to styrene, 679  
 FALLAS J *see* FALLAS C *et al*  
 FELACO M *see* CARMIGNANI M *et al*  
 FERRI G M *see* PORRO A *et al*  
 FIORETTA G *see* GUBÉRAN E *et al*  
 FIORITO A *see* DE ZOTTI R *et al*  
 LARESE F *et al*  
 FISCHBEIN A  
 LUO J-C J, SOLOMON S J, HOROWITZ S, HAILOO W, MILLER A: Clinical findings among hard metal workers, 17  
*see also* GANOR E *et al*  
 FLODMARK B T, AASE G: Musculoskeletal symptoms and type A behaviour in blue collar workers, 683  
 FOO S C *see* NG T P *et al*  
 NGIM C H *et al*  
 FOURNIER E *see* DESCHAMPS D *et al*  
 FRANCO G, MASSOLA A: Non-occupational pneumococcosis at high altitude villages in central Ladakh: *correspondence*, 452  
 FRANK A L: Cigarette smoking and small irregular opacities: *correspondence*, 600  
 FRENCH A D *see* DE LUCCA A J *et al*  
 FRENCH VCM GROUP *see* LAPLANCHE A *et al*  
 FROMM P *see* GANOR E *et al*

FROSTROM K *see* ALBIN M *et al*

FRYAR C *see* CHIAZZE L *et al*

FU S C *see* PANG D *et al*

FUJINO A, SATOH T, TAKEBAYASHI T, NAKASHIMA H, SAKURAI H, HIGASHI T, MATUMURA H, MINAGUCHI H, KAWAI T: Biological monitoring of workers exposed to acetone in acetate fibre plants, 654

## G

- GANNON P F G, BURGE P S, HEWLETT C, TEE R D: Haemolytic anaemia in a case of occupational asthma due to maleic anhydride, 142  
 GANOR E, FISCHBEIN A, BRENNER S, FROMM P: Extreme airborne asbestos concentrations in a public building, 486  
 GARIBALDI K *see* MORABIA A *et al*  
 GENNART J P *see* BUCHET J P *et al*  
 GERHARDSSON L, CHETTLE D R, ENGLYST V, NORDBERG G F, NYHLIN H, SCOTT M C, TODD A C, VESTERBERG O: Kidney effects in long term exposed lead smelter workers, 186  
 GERMANN C *see* ZOBER M A *et al*  
 GERR F *see* LETZ R *et al*  
 GERVAIS P *see* DESCHAMPS D *et al*  
 GHIONE G L *see* CALISTI R *et al*  
 GHYSELEN P *see* ROELS H A *et al*  
 GILBERT R *see* AUCHINCLOSS J H *et al*  
 GINGRAS S *see* BOURBONNAIS R *et al*  
 GIULIANO G *see* CARMIGNANI M *et al*  
 GOLDIE I *see* STENLUND B *et al*  
 GORDON D J *see* TEE R D *et al*  
 GORDON S  
 TEE R D, LOWSON D, WALLACE J, NEWMAN TAYLOR A J: Reduction of airborne allergenic urinary proteins from laboratory rats, 416  
*see also* TEE R D *et al*  
 GREEN T S *see* AL JARAD N *et al*  
 GREENBERG M: Inhalation fever: a proposed unifying term for febrile reactions to inhalation of noxious substances: *correspondence*, 455  
 GREENE T *see* ERNHART C B and GREENE T  
 GUBÉRAN E, USEL M, RAYMOND L, BOLAY J, FIORETTA G, PUISSANT J: Increased risk for lung cancer and for cancer of the gastrointestinal tract among Geneva professional drivers, 337  
 GUENZI M *see* CHAU N *et al*  
 GUNNARSDÓTTIR H *see* RAFNSSON V and GUNNARSDÓTTIR H  
 GUNNARSSON L-G, BODIN L, SÖDERFELDT B, AXELSON O: A case-control study of motor neurone disease: its relation to heritability, and occupational exposures, particularly to solvents, 791  
 GUSTAVSSON A *see* LUNDBERG I *et al*

## H

- HAGBERG M *see* STENLUND B *et al*  
 HAGUENOER J M *see* CEZARD C *et al*  
 HAILOO W *see* FISCHBEIN A *et al*  
 HAISHANG D *see* SHUQIN K *et al*  
 HAMDAN H H *see* DRISCOLL T R *et al*  
 HANSCOM B *see* KILBURN K H *et al*  
 HANSEN E S: A mortality study of Danish stokers, 48  
 HANSSON E *see* RÖNNBÄCK L and HANSSON E  
 HARDELL L: Hexachlorophene exposure in a young patient with soft tissue sarcoma: *correspondence*, 743  
 HARMON L L *see* DAGG T G *et al*

- HARVEY S *see* JENKINS R *et al*  
 HAYES J P *see* LAMBOURN E M *et al*  
 HEARL F J *see* McLAUGHLIN J K *et al*  
 HEEDERIK D, KROMHOUT H, KROMHOUT D, BUREMA J, BIERSTEKER K: Relations between occupation, smoking, lung function, and incidence and mortality of chronic non-specific lung disease: the Zutphen Study, 299  
 HEITZMAN E R *see* AUCHINCLOSS J H *et al*  
 HELLEDAY R *see* SANDSTRÖM T *et al*  
 HÉMON D *see* VALLERON A-J *et al*  
 HENNEBERGER P K *see* AUCHINCLOSS J H *et al*  
 HERMON C *see* ROMAN E *et al*  
 HERSHMAN D *see* LETZ R *et al*  
 HESTERBERG T W *see* VALLERON A-J *et al*  
 HEWLETT C *see* GANNON P F G *et al*  
 HEYER N J *see* DEMERS P A *et al*  
 HIGASHI T *see* FUJINO A *et al*  
     YAMATO H *et al*  
 HINCHCLIFFE R, COLES R R A, KING P F: Occupational noise induced vestibular malfunction?, 63  
 HINKAMP D L *see* HODGKINS D G *et al*  
 HISANAGA N *see* HUANG J *et al*  
 HJORTSBERG U, ØRBAEK P, ARBORELIUS M: Small airways dysfunction among non-smoking shipyard arc welders, 441  
 HNIZDO E: Loss of lung function associated with exposure to silica dust and with smoking and its relation to disability and mortality in South African gold miners, 472  
 HODGKINS D G, ROBINS T G, HINKAMP D L, SCHORK M A, KREBS W H: A longitudinal study of the relation of lead in blood to lead in air concentrations among battery workers, 241  
 HÖGBERG M *see* LUNDBERG I *et al*  
 HÖGLUND G V, ISELIUS E L, KNAVE B G: Children of male spray painters: weight and length at birth, 249  
 HOGSTEDT C *see* STENLUND B *et al*  
 HOKAMA S *see* UEDA A *et al*  
 HORNING R W *see* EGELAND G M *et al*  
 HOROWITZ S *see* FISCHBEIN A *et al*  
 HORSTMANN V *see* NIELSEN J *et al*  
 HU X, WEGMAN D H, EISEN E A, WOSKIE S R, SMITH R G: Dose related acute irritant symptom responses to occupational exposure to sodium borate dusts, 706  
 HUANG J, ASADA N, TAKEUCHI Y, SHIBATA E, HISANAGA N, ONO Y, KATO K: Dose dependent effects of chronic exposure to toluene on neuronal and glial cell marker proteins in the central nervous system of rats, 282  
 HUGHES J M *see* VALLERON A-J *et al*

## I

- ICHIBA M *see* TOMOKUNI K *et al*  
 ISELIUS E L *see* HÖGLUND G V *et al*  
 ITURRA H *see* DEGUIRE L *et al*  
 IWATA K, SAITO H, MORIYAMA M, NAKANO A: Follow up study of renal tubular dysfunction and mortality in residents of an area polluted with cadmium, 736

## J

- JAKOBSSON K *see* JOHANSSON L *et al*  
 JAMIESON G G *see* JOHNSTON J D *et al*  
 JANSEN T *see* WESTGAARD R H and JANSEN T  
 JENKINS R, HARVEY S, BUTLER T, LLOYD THOMAS R: A six year longitudinal study of the occupational consequences of drinking over "safe limits" of alcohol, 369  
 JEYARATNAM J *see* NGIM C H *et al*

- JING-QIONG C *see* McLAUGHLIN J K *et al*  
 JOFFE M: Detection of agents causing genetic or reproductive damage: *editorial*, 1  
 JOHANSSON L, ALBIN M, JAKOBSSON K, MIKOCZY Z: Histological type of lung carcinoma in asbestos cement workers and matched controls, 626  
 JOHARD U, EKLUND A, DAHLQVIST M, AHLANDER A, ALEXANDERSSON R, EKHOLM U, TORNLING G, ULFVARSSON U: Signs of alveolar inflammation in non-smoking Swedish wood trimmers, 428  
 JOHNSTON J D, JAMIESON G G, WRIGHT S: Reproductive and developmental hazards and employment policies, 85  
 JONGENEELLEN F J *see* SHERSON D *et al*  
 JULIAN J A *see* MUIR D C F *et al*

## K

- KARJALAINEN A *see* TUOMI T *et al*  
 KARLSSON M *see* ERIKSSON M and KARLSSON M  
 KATO K *see* HUANG J *et al*  
 KATSNELSON B A, KONYSHEVA L K, PRIVALOVA L I, MOROSOVA K I: Development of a multicompartmental model of the kinetics of quartz dust in the pulmonary region of the lung during chronic inhalation exposure of rats, 172  
 KAWAI T *see* FUJINO A *et al*  
 KELSO J C: Asbestos and cancer: history and public policy: *correspondence*, 526  
 KENNEDY M C S: An industrial disease: *correspondence*, 672  
 KERN J *see* ZUSKIN E *et al*  
 KHEDDACHE S *see* ALBIN M *et al*  
 KIDO M *see* YAMATO H *et al*  
 KILBURN K H  
     POWERS D, WARSHAW R H: Pulmonary effects of exposure to fine fibreglass: irregular opacities and small airways obstruction, 714  
     WARSHAW R H, HANSCOM B: Are hearing loss and balance dysfunction linked in construction iron workers?, 138  
 KING P F *see* HINCHCLIFFE R *et al*  
 KLOSS D M *see* LEE W R and KLOSS D M  
 KNAVE B G *see* HÖGLUND G V *et al*  
 KNUDSEN K M *see* VESTBO J *et al*  
 KOCK B *see* ERKKILÄ J *et al*  
 KONGERUD J *see* SØYSETH V and KONGERUD J  
 KONYSHEVA L K *see* KATSNELSON B A *et al*  
 KOSKELA P *see* SEURI M and KOSKELA P  
 KREBS W H *see* HODGKINS D G *et al*  
 KROMHOUT D *see* HEEDERIK D *et al*  
 KROMHOUT H: Incidence of leukaemia and brain tumours in some "electrical occupations": *correspondence*, 375  
     *see also* HEEDERIK D *et al*  
 KRSTACIĆ G *see* DUJIC Z *et al*  
 KUSTERS E: Biological monitoring of MDA: *correspondence*, 72

## L

- LABRÈCHE F P  
 CHERRY N M, McDONALD J C: Psychiatric disorders and occupational exposure to solvents, 820  
     *see also* Cherry N M *et al*  
 LAMBOURN E M, HAYES J P, McALLISTER W A C, TAYLOR A J N: Occupational asthma due to EPO 60, 294

- LANGWORTH S  
 ALMKVIST O, SÖDERMAN E, WIKSTRÖM B-O: Effects of occupational exposure to mercury vapour on the central nervous system, 545  
 ELINDER C G, SUNDQUIST K G, VESTERBERG O: Renal and immunological effects of occupational exposure to inorganic mercury, 394  
 LANOUZIÈRE C *see* LAPLANCHE A *et al*  
 LAPLANCHE A, CLAVEL-CHAPELON F, CONTASSOT J-C, LANOUZIÈRE C, French VCM Group: Exposure to vinyl chloride monomer: results of a cohort study after a seven year follow up, 134  
 LARESE F  
 FIORITO A, DE ZOTTI R: The possible haematological effects of glycol monomethyl ether in a frame factory, 131  
*see also* DE ZOTTI R *et al*  
 LARSSON S *see* ALBIN M *et al*  
 LASFARGUES G *see* DIOT P *et al*  
 LAUWERYS R *see* BUCHET J P *et al*  
 OFFERGELT J A *et al*  
 LAUWERYS R R *see* ROELS H A *et al*  
 LAVANDIER M *see* DIOT P *et al*  
 LAWRENCE C E *see* TAYLOR P R and LAWRENCE C E  
 LAX M *see* AUCHINCLOSS J H *et al*  
 LE PAPE A *see* DIOT P *et al*  
 LEANDERSON P, TAGESSON C: Hydrogen peroxide release and hydroxyl radical formation in mixtures containing mineral fibres and human neutrophils, 745  
 LEDIN M-C *see* SANDSTRÖM T *et al*  
 LEE H S, PHOON W H: Diurnal variation in peak expiratory flow rate among workers exposed to toluene diisocyanate in the polyurethane foam manufacturing industry, 423  
*see also* NG T P *et al*  
 LEE J: A cautionary note on the use of the correlation coefficient: *correspondence*, 526  
 LEE S T *see* EGELAND G M *et al*  
 LEE W R: Cigarette smoking and small irregular opacities: *correspondence*, 815  
 KLOSS D M: "Clawbacks": *editorial*, 457  
 LEMARIE E *see* DIOT P *et al*  
 LETZ R, CHERNIACK M G, GERR F, HERSHMAN D, PACE P: A cross sectional epidemiological survey of shipyard workers exposed to hand-arm vibration, 53  
 LIDDELL F D K *see* SLUIS-CREMER G K *et al*  
 LILIS R *see* EHRLICH R *et al*  
 LIOY P J *see* BUCKLEY T J and LIOY P J  
 LLOYD THOMAS R *see* JENKINS R *et al*  
 LOFT S *see* SHERSON D *et al*  
 LOGAN W P D *see* SLUIS-CREMER G K *et al*  
 LOMONTE C *see* PORRO A *et al*  
 LOWSON D *see* GORDON S *et al*  
 LUNDBERG I, GUSTAVSSON A, HÖGBERG M, NISE G: Diagnoses of alcohol abuse and other neuropsychiatric disorders among house painters compared with house carpenters, 409  
 LUO J-C J *see* FISCHBEIN A *et al*  
 LYNGE E *see* RONCO G *et al*  
 SKOV T *et al*
- M
- MAARUP B *see* SKOV T *et al*  
 MCALLISTER W A C *see* LAMBOURN E M *et al*  
 MCBRIEN R H, STEVENS A B: Occupational health in the new NHS: *correspondence*, 872  
 MCCAWLEY M A *see* MCLAUGHLIN J K *et al*  
 MCCONNELL R, CORDÓN M, MURRAY D L, MAGNOTTI R: Hazards of closed pesticide mixing and loading systems: the paradox of protective technology in the Third World, 615  
 MCDONALD J C *see* CHERRY N M *et al*  
 LABRÈCHE F P *et al*  
 MACEY M *see* AL JARAD N *et al*  
 MCGRANN S *see* ALLEN J A *et al*  
 MCKIERNAN M J *see* SORAHAN T *et al*  
 MCLAUGHLIN J K, JING-QIONG C, DOSEMECI M, RONG-AN C, REXING S H, ZHIEN W, HEARL F J, MCCAWLEY M A, BLOT W J: A nested case-control study of lung cancer among silica exposed workers in China, 167  
 MCNULTY J C *see* MUSK A W *et al*  
 MAEHLE W *see* MUIR D C F *et al*  
 MAGNOTTI R *see* MCCONNELL R *et al*  
 MAILLARD G *see* DESCHAMPS D *et al*  
 MAILLARD M F *see* SAUREL-CUBIZOLLES M J *et al*  
 MALESANI F *see* CAZZADORI A *et al*  
 MALMBERG P *see* RYLANDER R and MALMBERG P  
 MANDA F *see* AOYAMA K *et al*  
 MANTON W I: Postpartum changes in maternal blood lead concentrations: *correspondence*, 671  
 MARANELLI G *see* BRUGNONE F *et al*  
 MARCER G, BERNARDI G, BARTOLUCCI G B, MASTRANGELO G, BELLUCO U, CAMPOSAMPIERO A, SAIA B: Pulmonary impairment in workers exposed to silicon carbide, 489  
 MARIONS O *see* STENLUND B *et al*  
 MARKOWITZ S *see* MORABIA A *et al*  
 MASLARD P *see* FALLAS C *et al*  
 MASON H J *see* ARMSTRONG R *et al*  
 MASSOLA A *see* FRANCO G and MASSOLA A  
 MASSON A *see* SAUREL-CUBIZOLLES M J *et al*  
 MASTRANGELO G *see* MARCER G *et al*  
 MATSUSHITA T *see* AOYAMA K *et al*  
 MATUMURA H *see* FUJINO A *et al*  
 MAYER L *see* CHAU N *et al*  
 MERCADO-CALDERON F *see* BUCHET J P *et al*  
 MIKOCZY Z *see* JOHANSSON L *et al*  
 MILLER A *see* FISCHBEIN A *et al*  
 MINAGUCHI H *see* FUJINO A *et al*  
 MONOD G *see* SAUREL-CUBIZOLLES M J *et al*  
 MONSELL F P, TILLMAN R M: Shearer's wrist: the carpal tunnel syndrome as an occupational disease in professional sheep shearers, 594  
 MORABIA A, MARKOWITZ S, GARIBALDI K, WYNDER E L: Lung cancer and occupation: results of a multicentre case-control study, 721  
 MORGAN M S *see* WORTLEY P *et al*  
 MORGAN W K C: Asbestos and cancer: history and public policy: *correspondence*, 451  
*see also* MUIR D C F *et al*  
 MORI K *see* TOMOKUNI K *et al*  
 MORIYAMA M *see* IWATA K *et al*  
 MOROSOVA K I *see* KATSNELSON B A *et al*  
 MOULIN J J *see* CHAU N *et al*  
 MUGNIER N *see* SAUREL-CUBIZOLLES M J *et al*  
 MUIR D C F, BERNHOLZ C D, MORGAN W K C, ROOS J O, CHAN J, MAEHLE W, JULIAN J A, SEBESTYEN A: Classification of chest radiographs for pneumoconiosis: a comparison of two methods of reading: *short report*, 869  
 MUR J M *see* CHAU N *et al*  
 MURRAY D L *see* MCCONNELL R *et al*  
 MURRAY R: Peter Holland: a pioneer of occupational medicine, 377

- MUSK A W, ROUSE I L, RIVERA B, DE KLERK N H, MCNULTY J C: Respiratory disease in non-smoking Western Australian goldminers, 750  
*see also* TEE R D *et al*
- MUSSELMAN R P: A case-control study of lung cancer in a cohort of workers potentially exposed to slag wool fibres: *correspondence*, 454
- MUSTAJBEGOVIC J *see* ZUSKIN E *et al*

## N

- NAESS-ANDRESEN C F *see* SKYBERG K *et al*
- NAKAJIMA R *see* WANG R-S and NAKAJIMA T
- NAKANO A *see* IWATA K *et al*
- NAKASHIMA H *see* FUJINO A *et al*
- NATTRASS M *see* POOLE C J M *et al*
- NETHERCOTT S A *see* BEALE N and NETHERCOTT S
- NEWLAND A C *see* AL JARAD N *et al*
- NEWMAN TAYLOR A J *see* GORDON S *et al*  
 TEE R D *et al*

## NG T P

- FOO S C, YOONG T: Menstrual function in workers exposed to toluene, 799
- FOO S C, YOONG T: Risks of spontaneous abortions in female workers exposed to toluene, 804
- NG Y L, LEE H S, CHIA K S, ONG H Y: A study of silica nephrotoxicity in exposed silicotic and non-silicotic workers, 35
- NG Y L *see* NG T P *et al*
- NGIM C H, FOO S C, BOEY K W, JEYARATNAM J: Chronic neurobehavioural effects of elemental mercury in dentists, 782
- NICHOLSON W J *see* EHRLICH R *et al*
- NIELSEN J, WELINDER H, HORSTMANN V, SKERFVING S: Allergy to methyltetrahydrophthalic anhydride in epoxy resin workers, 769
- NISE G *see* LUNDBERG I *et al*  
 SVENSSON B-G *et al*
- NOLIBE D *see* DIOT P *et al*
- NOMURA S *see* UEDA A *et al*
- NORDBERG G F *see* GERHARDSSON L *et al*
- NORMIER G *see* DIOT P *et al*
- NORPOTH K *see* POPP W *et al*
- NUNN A J *see* TEE R D *et al*
- NUYTS G D, DE BROE M E: Renal and immunological effects of occupational exposure to inorganic mercury: *correspondence*, 873
- NYHLIN H *see* GERHARDSSON L *et al*

## O

- OBAMA K *see* UEDA A *et al*
- OFFERGELT J A, ROELS H, BUCHET J P, BOECKX M, LAUWERYS R: Relation between airborne arsenic trioxide and urinary excretion of inorganic arsenic and its methylated metabolites, 387
- OJANEN T: Class specific antibodies in serodiagnosis of farmer's lung, 332
- OKSA P *see* TUOMI T *et al*
- OLSEN J *see* SKOV T *et al*
- OLSSON H *see* SVENSSON B-G *et al*
- ONG H Y *see* NG T P *et al*
- ONO Y *see* Huang J *et al*
- ØRBAEK P *see* HJORTSBERG U *et al*
- ORD J *see* AL JARAD N *et al*
- OTT M G *see* ZOBER M A *et al*
- OVERGAARD E *see* SHERSON D *et al*

## P

- PAKKARI A *see* ERKKILÄ J *et al*
- PACE P *see* LETZ R *et al*
- PAHWA P *see* ZEJDA J E *et al*
- PANG D, FU S C, YANG G C: Relation between exposure to respirable silica dust and silicosis in a tungsten mine in China, 38
- PÄPKE O *see* ZOBER M A *et al*
- PARIKH J R: Byssinosis in developing countries: *editorial*, 217
- PASSAVANTI G *see* PORRO A *et al*
- PATRIS A *see* CHAU N *et al*
- PEARSON M C *see* AL JARAD N *et al*
- PEIYI X *see* SHUQIN K *et al*
- PÉLERIN M *see* ROMAN E *et al*
- PENDLINGTON M *see* ARMSTRONG R *et al*
- PEPPI D J *see* AUCHINCLOSS J H *et al*
- PHAM Q T *see* CHAU N *et al*
- PHOON W H *see* LEE H S and PHOON W H
- PONTERIO F *see* COMBA P *et al*
- POOLE C J M, WRIGHT A D, NATTRASS M: Control of diabetes mellitus in shift workers, 513
- POPE D J *see* SORAHAN T *et al*
- POPP W, SCHMIEDING W, SPECK M, VAHRENHOLZ C, NORPOTH K: Incidence of bladder cancer in a cohort of workers exposed to 4-chloro-o-toluidine while synthesising chlordimeform, 529
- PORCELLI G *see* CARMIGNANI M *et al*
- PORRO A, LOMONTE C, CORATELLI P, PASSAVANTI G, FERRI G M, ASSENNATO G: Chronic glomerulonephritis and exposure to solvents: a case-referent study, 738
- POULSEN H E *see* SHERSON D *et al*
- POWERS D *see* KILBURN K H *et al*
- PRATT D S *see* RASK-ANDERSEN A and PRATT D S
- PRIVALOVA L I *see* KATSNELSON B A *et al*
- PROVENCHER S *see* DEGUIRE L *et al*
- PUISSANT J *see* GUBÉRAN E *et al*

## R

- RAFNSSON V, GUNNARSDÓTTIR H: Fatal accidents among Icelandic seamen: 1966-86, 694
- RANAVAYA M I, REGER R B, BATTIGELLI M C: Non-occupational pneumoconiosis at high altitude villages in central Ladakh: *correspondence*, 452
- RASK-ANDERSEN A, PRATT D S: Inhalation fever: A proposed unifying term for febrile reactions to inhalation of noxious substances, 40
- RASMUSSEN F V *see* VESTBO J *et al*
- RAYMOND L *see* GUBÉRAN E *et al*
- REES D
- CRONJE R, DU TOIT R S J: Dust exposure and pneumoconiosis in a South African pottery. 1 Study objectives and dust exposure, 459
- STEINBERG M, BECKER P J, SOLOMON A: Dust exposure and pneumoconiosis in a South African pottery. 2 Pneumoconiosis and factors influencing reading of radiological opacities, 465
- REFSUM H E *see* SKYBERG K *et al*
- REGER R B *see* RANAVAYA M I *et al*
- REVILLARD J P *see* DIOT P *et al*
- REXING S H *see* MCLAUGHLIN J K *et al*
- RIBAK J, SELIKOFF I J: Survival of asbestos insulation workers with mesothelioma, 732
- RIDDLE H F V *see* AGIUS R *et al*
- RIIHIMÄKI V *see* ERKKILÄ J *et al*
- RIVERA B *see* MUSK A W *et al*

- ROBINS T G *see* HODGKINS D G *et al*  
 ROELS H *see* OFFERGELT J A *et al*  
 ROELS H A, GHYSELEN P, BUCHET J P, CEULEMANS E, LAUWERYS R R: Assessment of the permissible exposure level to manganese in workers exposed to manganese dioxide dust, 25  
 ROGERS A: Prediction of mesothelioma, lung cancer, and asbestosis in former Wittenoom asbestos workers: *correspondence*, 451  
 ROMAN E, VERAL V, PELERIN M, HERMON C: Spontaneous abortion and work with visual display units, 507  
 ROMEO L *see* CAZZADORI A *et al*  
 RONCO G, COSTA G, LYNGE E: Cancer risk among Danish and Italian farmers, 220  
 RONG-AN C *see* MCCLAUGHLIN J K *et al*  
 RONNBACK L, HANSSON E: Chronic encephalopathies induced by mercury or lead: aspects of underlying cellular and molecular mechanisms, 233  
 RONNEBERG A *see* SKYBERG K *et al*  
 ROOS J O *see* MUIR D C F *et al*  
 RORTH M *see* SKOV T *et al*  
 ROSENBERG N *see* DESCHAMPS D *et al*  
 ROSENSTOCK L *see* DEMERS P A *et al*  
 ROSS C E *see* TSAI S P *et al*  
 ROUSE I L *see* MUSK A W *et al*  
 RUBIN A E, BENTUR L, BENTUR Y: Obstructive airway disease associated with occupational sodium hydroxide inhalation, 213  
 RUDD R M *see* AL JARAD N *et al*  
 RYLANDER R, MALMBERG P: Non-infectious fever: inhalation fever or toxic alveolitis? *correspondence*, 296

## S

- SAIA B *see* MARCER G *et al*  
 SAITO H *see* IWATA K *et al*  
 SAKURAI H *see* FUJINO A *et al*  
 SALSON D *see* DESCHAMPS D *et al*  
 SANDSTRÖM T, LEDIN M-C, THOMASSON L, HELLEDAY R, STJERNBERG N: Reductions in lymphocyte subpopulations after repeated exposure to 1.5 ppm nitrogen dioxide, 850  
 ŠARIĆ M *see* DUJČIĆ Ž *et al*  
 SATIN K P *see* DAGG T G *et al*  
 SATOH T *see* FUJINO A *et al*  
 SAUREL-CUBIZOLLES M J, ESTRYN-BEHAR M, MAILLARD M F, MUGNIER N, MASSON A, MONOD G: Neuropsychological symptoms and occupational exposure to anaesthetics, 276  
 SCHACHTER E N *see* ZUSKIN E *et al*  
 SCHMIEDING W *see* POPP W *et al*  
 SCHNEIDER T *see* VALLERON A-J *et al*  
 SCHNORR T M *see* EGELAND G M *et al*  
 SCHORK M A *see* HODGKINS D G *et al*  
 SCOTT M *see* ERKKILÄ J *et al*  
 SCOTT M C *see* ARMSTRONG R *et al*  
     GERHARDSSON L *et al*  
 SEATON A: Cigarette smoking and small irregular opacities: *correspondence*, 453  
     *see also* AGIUS R *et al*  
 SEBESTYEN A *see* MUIR D C F *et al*  
 SELIKOFF I J *see* EHRLICH R *et al*  
     RIBAK J AND SELIKOFF I J  
 SENFT K *see* ZOBER M A *et al*  
 SEURI M, KOSKELA P: Contact with pigs and cats associated with high prevalence of Toxoplasma antibodies among farmers, 845

- SHALLENBERGER L G, ACQUAVELLA J F, DONALESKI D: An updated mortality study of workers in three major United States refineries and chemical plants, 345  
 SHERSON D, SIGSGAARD T, OVERGAARD E, LOFT S, POULSEN H E, JONGENELEN F J: Interaction of smoking, uptake of polycyclic aromatic hydrocarbons, and cytochrome P450IA2 activity among foundry workers, 197  
 SHERWOOD R J: The twain have met: *editorial*, 145  
 SHIBATA E *see* HUANG J *et al*  
 SHINOHARA A *see* CHIBA M AND SHINOHARA A  
 SHOUVAL D *see* DONCHIN M AND SHOUVAL D  
 SHUQIN K, HAISHANG D, PEIYI X, WANDA H: A report of two cases of chronic serious manganese poisoning treated with sodium para-aminosalicylic acid, 66  
 SIGSGAARD T *see* SHERSON D *et al*  
 SKERFVING S *see* NIELSEN J *et al*  
 SKOV T, MAARUP B, OLSEN J, RØRTH M, WINTHEREIK H, LYNGE E: Leukaemia and reproductive outcome among nurses handling antineoplastic drugs, 855  
 SKYBERG K, RØNNEBERG A, CHRISTENSEN C C, NAESS-ANDRESEN C F, BORGERSEN A, REFSUM H E: Lung function and radiographic signs of pulmonary fibrosis in oil exposed workers in a cable manufacturing company: a follow up study, 309  
 SLUIS-CREMER G K, LIDDELL F D K, LOGAN W P D, BEZUIDENHOUT B N: The mortality of amphibole miners in South Africa, 1946-80, 566  
 SMITH R G *see* HU X *et al*  
 SÖDERFELDT B *see* GUNNARSSON L-G *et al*  
 SÖDERMAN E *see* LANGWORTH S *et al*  
 SOLER P *see* DESCHAMPS D *et al*  
 SOLOMON A *see* REES D *et al*  
 SOLOMON S J *see* FISCHBEIN A *et al*  
 SOMERVILLE L *see* ERKKILÄ J *et al*  
 SOMERVILLE L J *see* ARMSTRONG R *et al*  
 SORAHAN T, POPE D J, MCKIERNAN M J: Cancer incidence and cancer mortality in a cohort of semiconductor workers: an update, 215  
 SØYSETH V, KONGERUD J: Prevalence of respiratory disorders among aluminium potroom workers in relation to exposure to fluoride, 125  
 SPECK M *see* POPP W *et al*  
 STACEY N H *see* DRISCOLL T R *et al*  
 STARCK J *see* ERKKILÄ J *et al*  
 Steinberg M *see* Rees D *et al*  
 STENLUND B, GOLDIE I, HAGBERG M, HOGSTEDT C, MARIONS O: Radiographic osteoarthritis in the acromioclavicular joint resulting from manual work or exposure to vibration, 588  
 STEVENS A B *see* MCBRIEN R H AND STEVENS A B  
 STJERNBERG N *see* SANDSTRÖM T *et al*  
 SUNDQUIST K G *see* LANGWORTH S *et al*  
 SVENSSON B-G, NISE G, ERFURTH E M, OLSSON H: Neuroendocrine effects in printing workers exposed to toluene, 402  
 SWANTESSON L *see* ALBIN M *et al*  
 SWENCICKI R E *see* DAGG T G *et al*

## T

- TAGESSON C *see* LEANDERSON P AND TAGESSON C  
 TAIKINA-AHO O *see* TUOMI T *et al*  
 TAKEBAYASHI T *see* FUJINO A *et al*  
 TAKEUCHI Y *see* HUANG J *et al*  
 TANAKA I *see* YAMATO H *et al*  
 TASKINEN E *see* TUOMI T *et al*  
 TÁTRAI E, UNGVÁRY G: The aetiology of experimental

- fibrosing alveobronchiolitis induced in rats by paprika dust, 494
- TAYLOR A J N *see* LAMBOURN E M *et al*
- TAYLOR P R, LAWRENCE C E: Polychlorinated biphenyls: estimated serum half lives: correspondence, 527
- TEANBY D: Fatal injury due to unrestrained vehicle load: short report, 809
- TÉCULESCU D *see* CHAU N *et al*
- TEE R D, GORDON D J, GORDON S, CROOK B, NUNN A J, MUSK A W, VENABLES K M, NEWMAN TAYLOR A J: Immune response to flour and dust mites in a United Kingdom bakery, 581  
*see also* GANNON P F G *et al*  
GORDON S *et al*
- THÉRIAULT G *see* DEGUIRE L *et al*
- THOMAS D B *see* WORTLEY P *et al*
- THOMASSON L *see* SANDSTROM T *et al*
- TILLMAN R M *see* MONSELL F P and TILLMAN R M
- TOCILJ C *see* DUJIĆ Z *et al*
- TODD A C *see* GERHARDSSON L *et al*
- TOMOKUNI K, ICHIBA M, MORI K: Relation between urinary a-aminoisobutyric acid excretion and concentration of lead in the blood of workers occupationally exposed to lead, 365
- TORNLING G *see* JOHARD U *et al*
- TSAI S P, DOWD C M, COWLES S R, ROSS C E: A prospective study of morbidity patterns in a petroleum refinery and chemical plant, 516
- TUBIANA M: The carcinogenic effect of exposure to low doses of carcinogens: *editorial*, 601
- TUKIAINEN P *see* TUOMI T *et al*
- TUOMI T, OKSA P, ANTTILA S, TAIKINA-AHO O, TASKINEN E, KARJALAINEN A, TUKIAINEN P: Fibres and asbestos bodies in bronchoalveolar lavage fluids of asbestos sprayers, 480
- ### U
- UEDA A, AOYAMA K, UEDA T, OBAMA K, UENO T, HOKAMA S, NOMURA S: Recent trends in bagassosis in Japan, 499
- UEDA T *see* AOYAMA K *et al*  
UEDA A *et al*
- ULFVARSSON U *see* JOHARD U *et al*
- UNGVARY G *see* TATRAI E and UNGVARY G
- USEL M *see* GUBÉRAN E *et al*
- UTHAYAKUMAR S *see* AL JARAD N *et al*
- ### V
- VAHRENHOLZ C *see* POPP W *et al*
- VALLERON A-J, BIGNON J, HUGHES J M, HESTERBERG T W, SCHNEIDER T, BURDETT G J, BROCHARD P, HÉMON D: Low dose exposure to natural and man made fibres and the risk of cancer: towards a collaborative European epidemiology: meeting report, 606
- VAUGHAN T L *see* WORTLEY P *et al*
- VENABLES K M: Preventing occupational asthma: *editorial*, 817  
*see also* TEE R D *et al*
- VERAL B *see* ROMAN E *et al*
- VESTBO J, KNUDSEN K M, RASMUSSEN F V: Forced expiratory volume in one second: why dichotomise?, 445
- VESTERBERG O *see* GERHARDSSON L *et al*  
LANGWORTH S *et al*
- VÉZINA M *see* BOURBONNAIS R *et al*
- VINET A *see* BOURBONNAIS R *et al*
- VOLPE A R *see* CARMIGNANI M *et al*
- ### W
- WALDRON H A: Occupational health in the new NHS: *editorial*, 297
- WALLACE J *see* GORDON S *et al*
- WANDA H *see* SHUQIN K *et al*
- WANG G *see* DRISCOLL T R *et al*
- WANG R-S, NAKAJIMA T: Effects of ethanol and phenobarbital treatments on the pharmacokinetics of toluene in rats, 104
- WARSHAW R H *see* KILBURN K H *et al*
- WATKINS D K *see* CHIAZZE L *et al*
- WEGMAN D H *see* HU X *et al*
- WEISENBURGER D D *see* ZAHM S H *et al*
- WELINDER J *see* NIELSEN J *et al*
- WELLER M P I: Asbestos and cancer: history and public policy: *correspondence*, 70
- WESTGAARD R H, JANSEN T: Individual and work related factors associated with symptoms of musculoskeletal complaints. I A quantitative registration system, 147; II Different risk factors among sewing machine operators, 154
- WIKSTRÖM B-O *see* LANGWORTH S *et al*
- WILKINSON P *see* AL JARAD N *et al*
- WINTHEREIK H *see* SKOV T *et al*
- WONG O *see* DAGG T G *et al*
- WORTLEY P, VAUGHAN T L, DAVIS S, MORGAN M S, THOMAS D B: A case-control study of occupational risk factors for laryngeal cancer, 837
- WOSKIE S R *see* HU X *et al*
- WRIGHT A D *see* POOLE C J M *et al*
- WRIGHT P F A *see* DRISCOLL T R *et al*
- WRIGHT S *see* JOHNSTON J D *et al*
- WYNDER E L *see* MORABIA A *et al*
- ### Y
- YAMATO H, TANAKA I, HIGASHI T, KIDO M: Determinant factor for clearance of ceramic fibres from rat lungs, 182
- YAMAUCHI C *see* AOYAMA K *et al*
- YANG G C *see* PANG D *et al*
- YOONG T *see* NG T P *et al*
- ### Z
- ZAGAR Z *see* ZUSKIN E *et al*
- ZAHM S H, BLAIR A, WEISENBURGER D D: Sex differences in the risk of multiple myeloma associated with agriculture: *correspondence*, 815
- ZANELLA I *see* BRUGNONE F *et al*
- ZANETTI D *see* COMBA P *et al*
- ZEJDA J E, PAHWA P, DOSMAN J A: Decline in spirometric variables in grain workers from start of employment: differential effect of duration of follow up, 576
- ZHIEN W *see* MCLAUGHLIN J K *et al*
- ZOBER M A, OTT M G, PÄPKE O, SENFT K, GERMANN C: Morbidity study of extruder personnel with potential exposure to brominated dioxins and furans. I Results of blood monitoring and immunological tests, 532
- ZOTTI S *see* BRUGNONE F *et al*
- ZUSKIN E, ZAGAR Z, SCHACHTER E N, MUSTAJBEGOVIC J, KERN J: Respiratory symptoms and ventilatory capacity in swine confinement workers, 435

---

# SUBJECT INDEX TO VOLUME 49, 1992

---

## A

- Abortion, spontaneous
  - risk, and toluene exposure, 804
  - and VDUs, 507
- Acetone, exposure, in acetate fibre plants, biological monitoring, 654
- Acetylcholinesterase, blood activity for biological monitoring of exposure to nerve agents, 648
- Agglutination of lung surfactant with glucan, 755
- Airways obstruction, and fine fibreglass exposure, 714
- Alcohol
  - abuse, and other neuropsychiatric disorders, diagnoses, painters and carpenters compared, 409
  - occupational consequences of drinking over "safe limits", 369
- Allergy
  - and asthma, caused by proteins from laboratory rats, 416
  - to laboratory animals, epidemiology, 41
  - to methyltetrahydrophthalic anhydride, epoxy resin workers, 769
- Aluminium potroom workers, prevalence of respiratory disorders in relation to exposure to fluoride, 125
- Alveolar inflammation, signs in non-smoking Swedish wood trimmers, 428
- $\beta$ -Aminoisobutyric acid, urinary excretion, and lead blood levels, relation in lead-exposed workers, 365
- Amosite asbestos, short term exposure, long term radiological effects, factory workers, 268
- Amphibole miners, mortality, South African, 1946-80, 566
- Anaesthetics, occupational exposure, and neuropsychological symptoms, 276
- Antineoplastic drugs, leukaemia and reproductive outcome among nurses handling, 855
- Arc welders, shipyard, non-smoking, and small airways dysfunction, 441
- Arsenic trioxide, airborne, and urinary excretion of inorganic arsenic and its methylated metabolites, relation between, 387
- Asbestos
  - bodies and fibres in bronchoalveolar lavage fluids of asbestos sprayers, 480
  - and cancer, history and public policy: *correspondence*, 70, 451, 526
  - cement workers, lung carcinoma, histological type, 626
  - exposure, lymphocyte subsets, changes in circulating NK cells: *short report*, 811
  - extreme airborne concentrations, public building, 486
  - former workers, Wittenoom, prediction of mesothelioma, lung cancer, and asbestosis: *correspondence*, 451
  - induced changes in lung function, early, detection, biphasic lung diffusing capacity, 260
  - insulation workers, with mesothelioma, survival, 732

- non-occupational childhood exposure, causing malignant pleural mesothelioma, 599
- related disease
  - histocompatibility antigen, 826
  - new HRCT scoring system for pulmonary fibrosis, pleural disease and emphysema, 73
- sprayers, asbestos bodies and fibres in bronchoalveolar lavage fluids, 480
- see also* Amosite asbestos
- Asthma
  - caused by proteins from laboratory rats, 416
  - and contact urticaria from latex gloves, hospital nurse, 596
  - occupational
    - due to EPO, 60, 294
    - due to maleic anhydride, and haemolytic anaemia, 142
  - preventing: *editorial*, 817
  - persistent, after accidental exposure to ethylene oxide, 523
- Australia, respiratory disease in non-smoking goldminers, 750

## B

- Bagassosis, recent trends, Japan, 499
- Battery workers, relation between blood and air lead concentrations, 241
- Berylliosis, chronic, scintigraphy with J001X in diagnosis, 359
- Bile acids, serum or plasma concentrations, chlorinated aliphatic hydrocarbons, 700
- Biological monitoring *editorial*, 145
- Bladder cancer, incidence, exposure to 4-chloro-o-toluidine while synthesising chlordimeform, 529
- Blood pressure, diastolic, and LDL cholesterol, effects of carbon disulphide exposure, 287
- Blue collar workers, musculoskeletal symptoms and type A behaviour, 683
- Brain damage, organic, and occupational solvent exposure, 776
- Brain tumours, and leukaemia, incidence in some "electrical occupations": *correspondence*, 375
- Bronchoalveolar lavage fluids, asbestos sprayers, fibres and asbestos bodies in, 480
- Byssinosis in developing countries: *editorial*, 217: *correspondence*, 872

## C

- Cable manufacturing, oil exposure, and pulmonary fibrosis, 309
- Cadmium exposure, longitudinal studies, 556
- Cadmium polluted area, renal tubular dysfunction and mortality, 736



- Cancer  
and asbestos, history and public policy: *correspondence*, 70, 451, 526  
incidence and mortality, in cohort of semiconductor workers, update, 215  
risk  
among Danish and Italian farmers, 220  
and low dose exposure to natural and man made fibres, 606
- Carbon disulphide  
blood concentration, normal and alcoholic subjects treated with disulfiram, 658  
exposure, effects on LDL cholesterol and diastolic blood pressure, 287
- Carcinogens, carcinogenic effect of exposure to low doses: *editorial*, 601
- Carpal tunnel syndrome, as occupational disease in professional sheep shearers, 594
- Carpenters and painters compared, for alcohol abuse and other neuropsychiatric disorders, 409
- Cats, associated with prevalence of *Toxoplasma* antibodies among farmers, 845
- Central nervous system, effects of occupational exposure to mercury vapour, 545
- Ceramic fibres, clearance from rat lungs, determinant factor, 182
- Chemical plant  
petroleum refinery, morbidity patterns, 516  
and refineries, US, mortality of workers, 345
- Chest radiographs  
in construction workers, ILO 1980 classification compared with routine readings, 862  
for pneumoconiosis, classification, comparison of two methods of reading: *short report*, 869
- Chlordimeform, 4-chloro-o-toluidine exposure, and bladder cancer incidence, 529
- Chlorinated aliphatic hydrocarbon exposure, serum or plasma bile acid concentration, 700
- 4-Chloro-o-toluidine, exposure to while synthesising chlordimeform, and bladder cancer incidence, 529
- Chronic bronchitis, as industrial disease: *correspondence*, 672
- Chronic non-specific lung disease, incidence and mortality, relations between occupation, smoking and lung function, Zutphen Study, 299
- Chrysotile asbestos miners, cancer mortality, Balangero, northern Italy: *correspondence*, 144
- "Clawbacks": *editorial*, 457
- Cobalt, and cemented tungsten carbides, poorly regulated exposure, health hazard, 832
- Coke oven plant workers, retired, lung function, 316
- Coke production, PAH exposure, 761
- Colour vision, subclinical impairment, styrene exposure, 679
- Construction workers, chest x ray films, ILO 1980 classification compared with routine readings, 862
- Correlation coefficient, use, cautionary note: *correspondence*, 526
- Cytochrome P450IA2 activity, smoking, and uptake of polycyclic aromatic hydrocarbons, interaction, foundry workers, 197
- D
- Denmark, cancer risk among farmers, 220
- Dentists, chronic neurobehavioural effects of elemental mercury, 782
- Diabetes mellitus, in shift workers, control, 513
- Dioxins and furans, brominated, exposure, morbidity study. I Results of blood monitoring and immunological tests, 532
- Disulfiram, blood concentration of carbon disulphide, normal and alcoholic subjects, 658
- Drivers, professional, increased risk for lung cancer and gastrointestinal tract cancer, Geneva, 337
- Drownings, among Icelandic seamen, 1966-86, 694
- Dust exposure and pneumoconiosis, South African pottery, 1 Study objectives and dust exposure, 459: 2 Pneumoconiosis and factors influencing reading of radiological opacities, 465
- Dust mites, immune response to, United Kingdom bakery, 581
- E
- "Electrical occupations", incidence of leukaemia and brain tumours: *correspondence*, 375
- Electronics workers, male, children of, weight and length at birth, 249
- Emphysema  
in asbestos related disease, new HRCT scoring system, 73  
as industrial disease: *correspondence*, 672
- Employment policies, reproductive and developmental hazards, 85
- Encephalopathies, chronic, induced by mercury or lead, underlying cellular and molecular mechanisms, 233
- EPO 60, causing occupational asthma, 294
- Epoxy resin workers, allergy to methyltetrahydrophthalic anhydride, 769
- Erythrocyte 5-aminolaevulinate hydrolyase activity, inhibition by tin and its prevention by selenite, 355
- Ethanol treatment, effect on pharmacokinetics of toluene, rats, 104
- Ethylene oxide, persistent asthma after accidental exposure, 523
- F
- Factory closures, effect on health, critical review: *correspondence*, 70
- Farmer's lung, class specific antibodies in serodiagnosis, 332
- Fatal accidents, Icelandic seamen, 1966-86, 694
- Fatal injury, due to unrestrained vehicle load: *short report*, 809
- Fever, non-infectious, inhalation fever or toxic alveolitis: *correspondence*, 296
- Fibreglass, fine, pulmonary effects of exposure, irregular opacities and small airways obstruction, 714
- Fibreglass manufacturing facility, malignant and non-malignant respiratory disease among employees, 326
- Fibres  
and asbestos bodies, in bronchoalveolar lavage fluids of asbestos sprayers, 480  
natural and man made, low dose exposure and cancer risk, 606
- Fibrosing alveolitis induced by paprika dust, rats, 494
- Firefighters, mortality, three northwestern United States cities, 664
- Flour mites, immune response to, United Kingdom bakery, 581
- Fluoride exposure, aluminium potroom workers, and prevalence of respiratory disorders, 125
- Forced expiratory volume in one second, why

- dichotomise?, 445  
 Foundry workers, interaction of smoking, uptake of polycyclic aromatic hydrocarbons, and cytochrome P450IA2 activity, 197  
 Frame factory, possible haematological effects of glycol monomethyl ether, 131  
 Furans and dioxins, brominated, exposure, morbidity study. I Results of blood monitoring and immunological tests, 532

## G

- Gastrointestinal tract cancer, increased risk among Geneva professional drivers, 337  
 Genetic damage, detection of agents causing: *editorial*, 1  
 Glomerulonephritis, chronic, and solvent exposure, 738  
 Glucan, and agglutination of lung surfactant, 755  
 Glycol monomethyl ether, in a frame factory, possible haematological effects, 131  
 Glycolipid (J001X), in early diagnosis of chronic berylliosis, 359  
 Goldminers  
   lung function loss, silican dust and smoking, South Africa, 472  
   non-smoking, and respiratory disease, Western Australia, 750  
 Grain workers, decline in spirometric variables from start of employment, 576  
 Graphite electrode manufacturing plant, PAH exposure, 761

## H

- Haemolytic anaemia, in case of occupational asthma due to maleic anhydride, 142  
 Hand-arm vibration, shipyard workers, cross sectional epidemiological survey, 53  
 Hand-arm vibration syndrome, objective testing for vasospasm, 688  
 Hard metal workers, clinical findings, 17  
 Hazards, reproductive and developmental, and employment policies, 85  
 Hearing loss and balance dysfunction, possible link in construction iron workers, 138  
 Hepatitis B virus, hospital employees, Jerusalem, 620  
 Hexachlorophene exposure, and soft tissue sarcoma: *correspondence*, 743  
 High resolution computed tomography scoring system, for pulmonary fibrosis, pleural disease, and emphysema, in asbestos related disease, 73  
 Histocompatibility antigen, in asbestos related disease, 826  
 Holland, Peter, pioneer of occupational medicine, 377  
 Hydrogen peroxide release and hydroxyl radical formation in mixtures containing mineral fibres and human neutrophils, 745  
 1-Hydroxypyrene excretion, biological indication of PAH exposure, 761  
 Hyperbaric environment, lung diffusing capacity, assessment by rebreathing technique, 254

## I

- Iceland, fatal accidents among seamen, 1966-86, 694  
 Immune response to flour and dust mites, United Kingdom bakery, 581  
 Immunoglobulin classes, in serodiagnosis of farmer's lung, 332

- Immunological and renal effects of occupational exposure to inorganic mercury, 394: *correspondence*, 873  
 Inhalation exposure, quartz dust kinetics, rats, 172  
 Inhalation fever, proposed unifying term for febrile reactions to inhalation of noxious substances, 40; *correspondence*, 455  
 Iron construction workers, hearing loss and balance dysfunction, possible link, 138  
 Italy, cancer risk among farmers, 220

## J

- J001X, in early diagnosis of chronic berylliosis, 359  
 Japan, bagassosis, recent trends, 499  
 Jerusalem, hepatitis B virus, hospital employees, 620

## K

- Kidney effects in long term exposed lead smelter workers, 186

## L

- Laboratory animals, allergy to, epidemiology, 41  
 Ladakh, non-occupational pneumoconiosis at high altitude villages: *correspondence*, 452  
 Laryngeal cancer, occupational risk factors, 837  
 Latex gloves, asthma and contact urticaria from, hospital nurse, 596  
 Lead  
   blood and air concentrations, relations between, battery workers, 241  
   blood levels, and urinary  $\beta$ -aminoisobutyric acid excretion, relation in lead-exposed workers, 365  
   bone concentrations, in vivo measurements, four sites, 631  
   exposure, relations between alcohol consumption and biological indices, 645  
   -induced chronic encephalopathies, underlying cellular and molecular mechanisms, 233  
   maternal blood concentrations, postpartum changes, 11: *correspondence*, 671  
   smelter workers, long term exposed, kidney effects, 186  
   tibial concentrations, in vivo x ray fluorescence measurements repeated, 14  
 Leukaemia  
   and brain tumours, incidence in some "electrical occupations": *correspondence*, 375  
   and reproductive outcome, among nurses handling antineoplastic drugs, 855  
 Low density lipoprotein cholesterol, and diastolic blood pressure, effects of carbon disulphide exposure, 287  
 Low dose exposure to natural and man made fibres and risk of cancer, towards a collaborative European epidemiology: meeting report, 606  
 Lung cancer  
   increased risk among Geneva professional drivers, 337  
   and occupation, 721  
   silica exposed workers, China, 167  
   in workers potentially exposed to slag wool fibres, case-control study: *correspondence*, 454  
 Lung carcinoma, histological type in asbestos cement workers and matched controls, 626  
 Lung diffusing capacity  
   biphasic, detection of early asbestos induced changes in lung function, 260  
   in hyperbaric environment, assessment by rebreathing technique, 254

- Lung function
  - loss, and silica dust and smoking, South African gold miners, 472
  - retired coke oven plant workers, 316
- Lung surfactant, agglutination with glucan, 755
- Lymphocyte subpopulations, reductions after repeated exposure to 1.5 ppm nitrogen dioxide, 850
- Lymphocyte subsets in subjects exposed to asbestos, changes in circulating NK cells: *short report*, 811

## M

- Maleic anhydride, causing occupational asthma, and haemolytic anaemia, 142
- Manganese, permissible exposure level, exposure to manganese dioxide dust, 25
- Manganese poisoning, chronic serious, treated with sodium para-aminosalicylic acid, 66
- Marker proteins, neuronal and glial cell, dose dependent effects of chronic exposure to toluene, CNS, rats, 282
- MDA, see 4,4'-Methylenedianiline
- Melanoma, malignant, telecommunications industry workers, mortality, 1976-83, 728
- Menstrual function in workers exposed to toluene, 799
- Mercury
  - elemental, chronic neurobehavioural effects, dentists, 782
  - induced chronic encephalopathies, underlying cellular and molecular mechanisms, 233
  - inorganic
    - renal and immunological effects of occupational exposure, 394: *correspondence*, 873
    - renal mechanisms in cardiovascular effects of chronic exposure, rats, 226
  - vapour, occupational exposure, effects on central nervous system, 545
- Mesothelioma, asbestos insulation workers, survival, 732
- Metal industry, cancer of nose and paranasal sinuses, 193
- 4,4'-Methylenedianiline, biological monitoring: *correspondence*, 72
- Methyltetrahydrophthalic anhydride, allergy to, epoxy resin workers, 769
- Mineral fibres and human neutrophils, hydrogen peroxide release and hydroxyl radical formation in mixtures containing, 745
- Mites, flour and dust, immune response to, United Kingdom bakery, 581
- Mortality, among firefighters, three northwestern United States cities, 664
- Motor neurone disease, relation to heritability, and occupational exposures, particularly to solvents, 791
- Multiple myeloma, occupational and other environmental factors, 95: *correspondence*, 815
- Musculoskeletal complaints, individual and work related factors, I A quantitative registration system, 147; II Different risk factors among sewing machine operators, 154
- Musculoskeletal symptoms and type A behaviour, blue collar workers, 683

## N

- Natural killer cells, circulating, changes, lymphocyte subsets and asbestos exposure: *short report*, 811
- Nephrotoxicity, silica, in exposed silicotic and non-silicotic workers, 35
- Nerve agents, exposure, biological monitoring, 648

- Neurobehavioural effects, chronic, elemental mercury, dentists, 782
- Neuroendocrine effects in printing workers exposed to toluene, 402
- Neuropsychological symptoms and occupational exposure to anaesthetics, 276
- Nitrogen dioxide, 1.5 ppm, repeated exposure, reductions in lymphocyte subpopulations, 850
- Noise induced vestibular malfunction, occupational, 63
- Nose and paranasal sinuses, cancer, metal industry, 193
- Notices, 144, 375, 455, 528, 600, 672, 743, 816, 874
- Nurses
  - certified sick leave, non-specific morbidity indicator, 673
  - handling antineoplastic drugs, leukaemia and reproductive outcome, 855

## O

- Obstructive airway disease, associated with occupational sodium hydroxide inhalation, 213
- Occupation, smoking, lung function, and incidence and mortality of chronic non-specific lung disease, Zutphen Study, 299
- Occupational health in the new NHS: *editorial*, 297: *correspondence*, 872
- Occupational noise induced vestibular malfunction?, 63
- Oil exposure, cable manufacturing, and pulmonary fibrosis, 309
- Opacities
  - irregular, pulmonary, and fine fibreglass exposure, 714
  - small irregular, and cigarette smoking: *correspondence*, 453, 600, 815
- Organic brain damage, and occupational solvent exposure, 776
- Osteoarthritis, radiographic, in acromioclavicular joint, resulting from manual work or exposure to vibration, 588

## P

- Painters
  - and carpenters compared, for alcohol abuse and other neuropsychiatric disorders, 409
  - spray, male, weight and length of their children, 249
- Paprika dust, inducing fibrosing alveolobronchiolitis, rats, 494
- Pesticide, closed mixing and loading systems, hazards, 615
- Petroleum refinery
  - and chemical plant, morbidity patterns, 516
  - updated cause specific mortality study, 203
- Phenobarbital treatment, effect on pharmacokinetics of toluene, rats, 104
- Pigs, associated with prevalence of *Toxoplasma* antibodies among farmers, 845
- Pleural disease, in asbestos related disease, new HRCT scoring system, 73
- Pleural effusion, in silicosis of the lung, 448
- Pleural mesothelioma, malignant, caused by non-occupational childhood exposure to asbestos, 599
- Pneumoconiosis
  - chest radiographs, classification, comparison of two methods of reading: *short report*, 869
  - and dust exposure, South African pottery, 1 Study objectives and dust exposure, 459: 2 Pneumoconiosis and factors influencing reading of radiological opacities, 465

- non-occupational, at high altitude villages in central Ladakh: *correspondence*, 452
- Polychlorinated biphenyls, estimated serum half lives: *correspondence*, 527
- Polycyclic aromatic hydrocarbons  
 dietary exposure, time course to urinary elimination of 1-hydroxypyrene, 113  
 exposure, in coke production and graphite electrode manufacturing plant, 761  
 smoking, and cytochrome P450IA2 activity, interaction, foundry workers, 197
- Polyurethane foam manufacturing industry, diurnal variation in PEFr among workers exposed to toluene diisocyanate, 423
- Pottery, dust exposure and pneumoconiosis, South Africa, 1 Study objectives and dust exposure, 459: 2 Pneumoconiosis and factors influencing reading of radiological opacities, 465
- Printing workers, exposed to toluene, neuroendocrine effects, 402
- Psychiatric disorders and occupational solvent exposure, 820
- Pulmonary effects of fine fibreglass exposure, irregular opacities and small airways obstruction, 714
- Pulmonary fibrosis  
 in asbestos related disease, new HRCT scoring system, 73  
 oil exposed workers, cable manufacturing, 309
- Pulmonary impairment, in workers exposed to silicon carbide, 489

## Q

- Quartz dust, kinetics, during chronic inhalation exposure, rats, 172

## R

- Rebreathing technique, in assessment of lung diffusing capacity in hyperbaric environment, 254
- Refineries, and chemical plants, US, mortality of workers, 345
- Renal and immunological effects of occupational exposure to inorganic mercury, 394: *correspondence*, 873
- Renal mechanisms in cardiovascular effects of chronic exposure to inorganic mercury, rats, 226
- Renal tubular dysfunction, and mortality, cadmium polluted area, 736
- Reproductive damage, detection of agents causing: *editorial*, 1
- Reproductive and developmental hazards, and employment policies, 85
- Reproductive outcome and leukaemia among nurses handling antineoplastic drugs, 855
- Respiratory disease  
 malignant and non-malignant, among employees of fibreglass manufacturing facility, 326  
 in non-smoking Western Australian goldminers, 750
- Respiratory disorders, prevalence among aluminium pot-room workers in relation to exposure to fluoride, 125
- Respiratory symptoms, and ventilatory capacity, in swine confinement workers, 435

## S

- Sarcoma, soft tissue, and hexachlorophene exposure: *correspondence*, 743

- Seamen, fatal accidents, Iceland, 1966-86, 694
- Selenite, preventing inhibition of erythrocyte 5-aminolae-vulinate hydrolyase activity by tin, 355
- Semen, quality in welders exposed to radiant heat, 5
- Semiconductor workers, cancer incidence and mortality in cohort, update, 215
- Sewing machine operators, musculoskeletal complaints, 147
- Shearer's wrist, carpal tunnel syndrome as occupational disease in professional sheep shearers, 594
- Sheep shearers, professional, shearer's wrist, carpal tunnel syndrome as occupational disease, 594
- Shift workers, control of diabetes mellitus, 513
- Shipyards workers, exposed to hand-arm vibration, cross sectional epidemiological survey, 53
- Sick leave, certified, as non-specific morbidity indicator, case-referent study among nurses, 673
- Silica  
 dust, exposure, respirable, and silicosis, relation between, tungsten mine, China, 38  
 and smoking, lung function loss, South African gold miners, 472  
 exposed workers, lung cancer, China, 167  
 nephrotoxicity, in exposed silicotic and non-silicotic workers, 35  
 what makes it toxic?, 163
- Silicon carbide exposure and pulmonary impairment, 489
- Silicosis, and respirable silica dust exposure, relation between, tungsten mine, China, 38
- Silicosis of the lung, pleural effusion, 448
- Slag wool fibres, workers potentially exposed to, case-control study of lung cancer: *correspondence*, 454
- Small airways dysfunction, non-smoking shipyard arc welders, 441
- Smoking  
 cigarette, and small irregular opacities: *correspondence*, 453, 600, 815  
 relation between occupation, lung function, and smoking, and incidence and mortality of chronic non-specific lung disease, Zutphen Study, 299  
 and silica dust, lung function loss, South African gold miners, 472  
 uptake of polycyclic aromatic hydrocarbons, and cytochrome P450IA2 activity, interaction, foundry workers, 197
- Sodium borate dusts, dose-related acute irritant symptom responses to exposure, 706
- Sodium hydroxide inhalation, occupational, and obstructive airway disease, 213
- Sodium para-aminosalicylic acid, in treatment of chronic serious manganese poisoning, 66
- Solvent exposure  
 and chronic glomerulonephritis, 738  
 and motor neurone disease, 791  
 occupational  
 and organic brain damage, 776  
 and psychiatric disorders, 820
- South Africa  
 mortality of amphibole miners, 1946-80, 566  
 pottery, dust exposure and pneumoconiosis, 1 Study objectives and dust exposure, 459: 2 Pneumoconiosis and factors influencing reading of radiological opacities, 465
- Spray painters, male, children of, weight and length at birth, 249
- Stokers, mortality study, Denmark, 48
- Styrene exposure  
 peripheral markers of neurochemical function, 560

and subclinical impairment of colour vision, 679  
 Swine confinement workers, respiratory symptoms and ventilatory capacity, 435

## T

Taxation recouping, "clawbacks": *editorial*, 457  
 Telecommunications industry workers, malignant melanoma, mortality, 1976-83, 728  
 Third World, technology and hazards of closed pesticide mixing and loading systems, 615  
 Toluene  
   diisocyanate, in polyurethane foam manufacturing industry, diurnal variation in PEFr, 423  
   dose dependent effects of chronic exposure on neuronal and glial cell marker proteins, CNS, rats, 282  
   effects of ethanol and phenobarbital treatments on pharmacokinetics, rats, 104  
   exposure  
     and menstrual function, 799  
     printing workers, neuroendocrine effects, 402  
     and spontaneous abortion risk, 804  
*Toxoplasma* antibodies among farmers, pigs and cats associated with high prevalence, 845  
 Tungsten carbides, cemented, and cobalt, poorly regulated exposure, health hazard, 832  
 Tungsten mine, silica dust exposure and silicosis, relation between, China, 38  
 Type A behaviour, and musculoskeletal symptoms, blue collar workers, 683

## U

Unrestrained vehicle load, causing fatal injury: *short report*, 809

Urticaria, contact, and asthma, from latex gloves, hospital nurse, 596

## V

Vasospasm, objective testing, hand-arm vibration syndrome, 688  
 Vehicle load, unrestrained, causing fatal injury: *short report*, 809  
 Ventilatory capacity, and respiratory symptoms, in swine confinement workers, 435  
 Vestibular malfunction, noise induced, occupational, 63  
 Vibration, resulting in radiographic osteoarthritis in the acromioclavicular joint, 588  
 Vinyl chloride monomer exposure, cohort study after seven year follow up, 134  
 Visual display units, and spontaneous abortion, 507

## W

Welders  
   arc, shipyard, non-smoking, and small airways dysfunction, 441  
   exposed to radiant heat, semen quality, 5  
 Wittenoom asbestos workers, former, prediction of mesothelioma, lung cancer, and asbestosis: *correspondence*, 451  
 Wood trimmers, non-smoking, signs of alveolar inflammation, Sweden, 428

## Z

Zutphen Study, relations between occupation, smoking, lung function, and incidence and mortality of chronic non-specific lung disease, 299

---

*British Journal of*

# INDUSTRIAL MEDICINE

---

VOLUME 49

---

*Editor:* H A Waldron

*Assistant Editors:* P J Baxter L Magos J C McDonald K M Venables

*Technical Editor:* N B Haynes

*Editorial Committee:*

M J Gardner  
J A Lunn

G H G McMillan  
A J Newman Taylor

D C Snashall  
*Editor, British Medical Journal*

BRITISH MEDICAL ASSOCIATION TAVISTOCK SQUARE LONDON WC1H 9JR



- 131 The possible haematological effects of glycol monomethyl ether in a frame factory *Francesca Larese, Antonio Fiorito, Renata De Zotti*
- 134 Exposure to vinyl chloride monomer: results of a cohort study after a seven year follow up *Agnès Laplanche, Françoise Clavel-Chapelon, Jean-Claude Contassot, Claudine Lanouzière, and the French VCM group (see end)*
- 138 Are hearing loss and balance dysfunction linked in construction iron workers? *Kaye H Kilburn, Raphael H Warshaw, Brad Hanscom*

#### **Short report**

- 142 Haemolytic anaemia in a case of occupational asthma due to maleic anhydride *P F G Gannon, P Sherwood Burge, C Hewlett, R D Tee*

#### **Correspondence**

- 144 An update of cancer mortality among chrysotile asbestos miners in Balangero, northern Italy *Roberto Calisti, Paolo De Giuli, Gian Luigi Ghione*

- 144 Notices

No 3 MARCH 1992

#### **Editorial**

- 145 The twain have met *R J Sherwood*

#### **Papers**

- 147 Individual and work related factors associated with symptoms of musculoskeletal complaints. I A quantitative registration system *R H Westgaard, T Jansen*
- 154 Individual and work related factors associated with symptoms of musculoskeletal complaints. II Different risk factors among sewing machine operators *R H Westgaard, T Jansen*
- 163 What makes silica toxic? *N Bagchi*
- 167 A nested case-control study of lung cancer among silica exposed workers in China *Joseph K McLaughlin, Chen Jing-Qiong, Mustafa Dosemeci, Chen Rong-An, Suzanne H Rexing, Wu Zhien, Frank J Hearl, Michael A McCawley, William J Blot*
- 172 Development of a multicompartamental model of the kinetics of quartz dust in the pulmonary region of the lung during chronic inhalation exposure of rats *B A Katsnelson, L K Konyshova, L I Privalova, K I Morosova*
- 182 Determinant factor for clearance of ceramic fibres from rat lungs *Hiroshi Yamato, Isamu Tanaka, Toshiaki Higashi, Masamitsu Kido*
- 186 Kidney effects in long term exposed lead smelter workers *L Gerhardsson, D R Chettle, V Englyst, G F Nordberg, H Nyhlin, M C Scott, A C Todd, O Vesterberg*
- 193 Cancer of the nose and paranasal sinuses in the metal industry: a case-control study *Pietro Comba, Pietro Gino Barbieri, Giuseppe Battista, Stefano Belli, Francesco Ponterio, Diego Zanetti, Olav Axelsson*
- 197 Interaction of smoking, uptake of polycyclic aromatic hydrocarbons, and cytochrome P450IA2 activity among foundry workers *D Sherson, T Sigsgaard, E Overgaard, S Loft, H E Poulsen, F J Jongeneelen*
- 203 An updated cause specific mortality study of petroleum refinery workers *T G Dagg, K P Satin, W J Bailey, O Wong, L L Harmon, R E Swencicki*
- 213 Obstructive airway disease associated with occupational sodium hydroxide inhalation *Amihai E Rubin, Lea Bentur, Yedidia Bentur*

#### **Short report**

- 215 Cancer incidence and cancer mortality in a cohort of semiconductor workers: an update *T Sorahan, D J Pope, M J McKiernan*

No 4 APRIL 1992

#### **Editorial**

- 217 Byssinosis in developing countries *J R Parikh*

#### **Papers**

- 220 Cancer risk among Danish and Italian farmers *Guglielmo Ronco, Giuseppe Costa, Elsebeth Lynge*



- 226 Renal mechanisms in the cardiovascular effects of chronic exposure to inorganic mercury in rats *Marco Carmignani, Paolo Boscolo, Luciano Artese, Goffredo Del Rosso, Giovanni Porcelli, Mauro Felaco, Anna Rita Volpe, Giovanni Giuliano*
  - 233 Chronic encephalopathies induced by mercury or lead: aspects of underlying cellular and molecular mechanisms *Lars Römbäck, Elisabeth Hansson*
  - 241 A longitudinal study of the relation of lead in blood to lead in air concentrations among battery workers *Douglas G Hodgkins, Thomas G Robins, David L Hinkamp, M Anthony Schork, William H Krebs*
  - 249 Children of male spray painters: weight and length at birth *Gunnar V Höglund, E Lemart Iselius, Bengt G Knave*
  - 254 Lung diffusing capacity in a hyperbaric environment: assessment by a rebreathing technique *Željko Dujčić, Davor Eterović, Pero Denoble, Goran Krstajić, Jadranka Tocilj*
  - 260 Biphasic lung diffusing capacity: detection of early asbestos induced changes in lung function *Željko Dujčić, Jadranka Tocilj, Srdjan Boschi, Marko Šarić, Davor Eterović*
  - 268 Long term radiological effects of short term exposure to amosite asbestos among factory workers *Rodney Ehrlich, Ruth Lilis, Eva Chan, William J Nicholson, Irving J Selikoff*
  - 276 Neuropsychological symptoms and occupational exposure to anaesthetics *M J Saurel-Cubizolles, M Estryn-Behar, M F Maillard, N Mugnier, A Masson, G Monod*
  - 282 Dose dependent effects of chronic exposure to toluene on neuronal and glial cell marker proteins in the central nervous system of rats *Jian Huang, Nobuyuki Asaeda, Yasuhiro Takeuchi, Eiji Shibata, Naomi Hisanaga, Yuichiro Ono, Kanefusa Kato*
  - 287 Effects of exposure to carbon disulphide on low density lipoprotein cholesterol concentration and diastolic blood pressure *Grace M Egeland, Greg A Burkhardt, Teresa M Schnorr, Rick W Hornung, John M Fajen, Shiu T Lee*
- Short report**
- 294 Occupational asthma due to EPO 60 *E M Lambourn, J P Hayes, W A C McAllister, A J Newman Taylor*

#### Correspondence

- 296 Non-infectious fever: inhalation fever or toxic alveolitis? *Ragnar Rylander, Per Malmberg*

No 5 MAY 1992

#### Editorial

- 297 Occupational Health in the new NHS *H A Waldron*

#### Papers

- 299 Relations between occupation, smoking, lung function, and incidence and mortality of chronic non-specific lung disease: the Zutphen Study *Dick Heederik, Hans Kromhout, Daan Kromhout, Jan Burema, Klaas Biersteker*
- 309 Lung function and radiographic signs of pulmonary fibrosis in oil exposed workers in a cable manufacturing company: a follow up study *K Skyberg, A Rønneberg, C C Christensen, C F Næss-Andresen, A Borgersen, H E Refsum*
- 316 Lung function in retired coke oven plant workers *N Chau, J P Bertrand, M Guenzi, L Mayer, D Tăculescu, J M Mur, A Patris, J J Moulin, Q T Pham*
- 326 A case-control study of malignant and non-malignant respiratory disease among employees of a fibreglass manufacturing facility *Leonard Chiazze Jr, Deborah K Watkins, Cheryl Fryar*
- 332 Class specific antibodies in serodiagnosis of farmer's lung *Tarja Ojanen*
- 337 Increased risk for lung cancer and for cancer of the gastrointestinal tract among Geneva professional drivers *E Gubéran, M Usel, L Raymond, J Bolay, G Fioretta, J Puissant*
- 345 An updated mortality study of workers in three major United States refineries and chemical plants *Leba G Shallenberger, John F Acquavella, Donna Donaleski*

- 355 Inhibition of erythrocyte 5-aminolaevulinate hydrolyase activity by tin and its prevention by selenite *Momoko Chiba, Atsuko Shinohara*
- 359 Scintigraphy with J001X, a Klebsiella membrane glycolipid, for the early diagnosis of chronic berylliosis: results from an experimental model *P Diot, A Le Pape, D Nolibe, G Normier, H Binz, J P Revillard, G Lasfargues, M Lavandier, E Lemarié*
- 365 Relation between urinary  $\beta$ -aminoisobutyric acid excretion and concentration of lead in the blood of workers occupationally exposed to lead *Katsumaro Tomokuni, Masayoshi Ichiba, Koji Mori*
- 369 A six year longitudinal study of the occupational consequences of drinking over "safe limits" of alcohol *Rachel Jenkins, Sharon Harvey, Tony Butler, Ruth Lloyd Thomas*

#### Correspondence

- 375 Incidence of leukaemia and brain tumours in some "electrical occupations" *Hans Kromhout*
- 375 Notices

No 6 JUNE 1992

#### Papers

- 377 Peter Holland: a pioneer of occupational medicine *Robert Murray*
- 387 Relation between airborne arsenic trioxide and urinary excretion of inorganic arsenic and its methylated metabolites *J A Offergelt, H Roels, J P Buchet, M Boeckx, R Lauwerys*
- 394 Renal and immunological effects of occupational exposure to inorganic mercury *S Langworth, C G Elinder, K G Sundquist, O Vesterberg*
- 402 Neuroendocrine effects in printing workers exposed to toluene *Bengt-Göran Svensson, Gun Nise, Eva Marie Erfurth, Håkan Olsson*
- 409 Diagnoses of alcohol abuse and other neuropsychiatric disorders among house painters compared with house carpenters *Ingvar Lundberg, Annika Gustavsson, Magareta Högberg, Gun Nise*
- 416 Reduction of airborne allergenic urinary proteins from laboratory rats *Susan Gordon, Rosemary D Tee, D Lowson, J Wallace, A J Newman Taylor*
- 423 Diurnal variation in peak expiratory flow rate among workers exposed to toluene diisocyanate in the polyurethane foam manufacturing industry *H S Lee, W H Phoon*
- 428 Signs of alveolar inflammation in non-smoking Swedish wood trimmers *U Johard, A Eklund, M Dahlqvist, A Ahlander, R Alexandersson, U Ekholm, G Tornling, U Ulfvarsson*
- 435 Respiratory symptoms and ventilatory capacity in swine confinement workers *E Zuskin, Z Zagar, E Neil Schachter, J Mustajbegovic, J Kern*
- 441 Small airways dysfunction among non-smoking shipyard arc welders *Ulf Hjortsberg, Palle Ørbæk, Måns Arborelius Jr*

#### Short reports

- 445 Forced expiratory volume in one second: why dichotomise? *Jørgen Vestbo, Kim M Knudsen, Finn V Rasmussen*
- 448 Pleural effusion in silicosis of the lung *Feisal A Al-Kassimi*

#### Correspondence

- 451 Asbestos and cancer: history and public policy *W K C Morgan*
- Prediction of mesothelioma, lung cancer, and asbestosis in former Wittenboom asbestos workers *A Rogers*
- Non-occupational pneumoconiosis at high altitude villages in central Ladakh *G Franco, A Massola and M I Ranavaya, R B Reger, M C Battigelli*
- Cigarette smoking and small irregular opacities *Anthony Seaton*
- A case-control study of lung cancer in a cohort of workers potentially exposed to slag wool fibres *Rod P Musselman*
- Inhalation fever: a proposed unifying term for febrile reactions to inhalation of noxious substances *Morris Greenberg*

- 455 Notices

# **Editorial**

- 457 "Clawbacks" *W R Lee, Diana M Kloss*

## **Papers**

- 459 Dust exposure and pneumoconiosis in a South African pottery. 1 Study objectives and dust exposure *D Rees, R Cronje, R S J du Toit*
- 465 Dust exposure and pneumoconiosis in a South African pottery. 2 Pneumoconiosis and factors influencing reading of radiological opacities *D Rees, M Steinberg, P J Becker, A Solomon*
- 472 Loss of lung function associated with exposure to silica dust and with smoking and its relation to disability and mortality in South African gold miners *Eva Hnizdo*
- 480 Fibres and asbestos bodies in bronchoalveolar lavage fluids of asbestos sprayers *Timo Tuomi, Panu Oksa, Sisko Anttila, Olavi Taikina-aho, Eero Taskinen, Antti Karjalainen, Pentti Tukiainen*
- 486 Extreme airborne asbestos concentrations in a public building *Eliezer Ganor, Alf Fischbein, Shmuel Brenner, Paul Froom*
- 489 Pulmonary impairment in workers exposed to silicon carbide *G Marcer, G Bernardi, G B Bartolucci, G Mastrangelo, U Belluco, A Camposampiero, B Saia*
- 494 The aetiology of experimental fibrosing alveolitis induced in rats by paprika dust *Erzsébet Tátrai, Gy Ungváry*
- 499 Recent trends in bagassosis in Japan *Atsushi Ueda, Kohji Aoyama, Tadako Ueda, Konomi Obama, Tatsuro Ueno, Seitetsu Hokama, Shigeru Nomura*
- 507 Spontaneous abortion and work with visual display units *Eve Roman, Valerie Beral, Margo Pelerin, Carol Hermon*
- 513 Control of diabetes mellitus in shift workers *C J M Poole, A D Wright, M Nattrass*
- 516 A prospective study of morbidity patterns in a petroleum refinery and chemical plant *Shan P Tsai, Catherine M Dowd, Sally R Cowles, Charles E Ross*

## **Short report**

- 523 Persistent asthma after accidental exposure to ethylene oxide *D Deschamps, N Rosenberg, P Soler, G Maillard, E Fournier, D Salson, P Gervais*

## **Correspondence**

- 526 Asbestos and cancer: history and public policy *J C Kelso*  
A cautionary note on the use of the correlation coefficient *James Lee*  
Polychlorinated biphenyls: estimated serum half lives *Philip R Taylor, Charles E Lawrence*
- 528 Notice

## **Papers**

- 529 Incidence of bladder cancer in a cohort of workers exposed to 4-chloro-o-toluidine while synthesising chlordimeform *W Popp, W Schmieding, M Speck, C Vahrenholz, K Norpoth*
- 532 Morbidity study of extruder personnel with potential exposure to brominated dioxins and furans. I Results of blood monitoring and immunological tests *M A Zober, M G Ott, O Pöpke, K Senft, C Germann*
- 545 Effects of occupational exposure to mercury vapour on the central nervous system *S Langworth, O Almkvist, E Söderman, B-O Wikström*
- 556 Longitudinal studies of exposure to cadmium *R Armstrong, D R Chettle, M C Scott, M Blindt, H J Mason*
- 560 Peripheral markers of neurochemical function among workers exposed to styrene *Harvey Checkoway, Lucio G Costa, Janice Camp, Teresa Coccini, William E Daniell, Russell L Dills*
- 566 The mortality of amphibole miners in South Africa, 1946-80 *G K Sluis-Cremer, F D K Liddell, W P D Logan, B N Bezuidenhout*
- 576 Decline in spirometric variables in grain workers from start of employment: differential effect of duration of follow up *Jan E Zejda, Punam Pahwa, James A Dosman*

581 Immune response to flour and dust mites in a United Kingdom bakery *R D Tee, D J Gordon, S Gordon, B Crook, A J Nunn, A W Musk, K M Venables, A J Newman Taylor*

588 Radiographic osteoarthritis in the acromioclavicular joint resulting from manual work or exposure to vibration *B Stenlund, I Goldie, M Hagberg, C Hogstedt, O Marions*

#### **Short reports**

594 Shearer's wrist: the carpal tunnel syndrome as an occupational disease in professional sheep shearers *Fergal P Monsell, Roger M Tillman*

596 Asthma and contact urticaria from latex gloves in a hospital nurse *Renata De Zotti, Francesca Larese, Antonio Fiorito*

599 Malignant pleural mesothelioma caused by non-occupational childhood exposure to asbestos *A Cazzadori, F Malesani, L Romeo*

#### **Correspondence**

600 Cigarette smoking and small irregular opacities *Arthur L Frank*

600 Notice

No 9 SEPTEMBER 1992

#### **Editorial**

601 The carcinogenic effect of exposure to low doses of carcinogens *M Tubiana*

#### **Meeting report**

606 Low dose exposure to natural and man made fibres and the risk of cancer: towards a collaborative European epidemiology. Report of a workshop held in Paris, 10-12 June, 1991 *Alain-J Valleron, Jean Bignon, Janet M Hughes, Thomas W Hesterberg, Thomas Schneider, Garry J Burdett, Patrick Brochard, Denis Hémon*

#### **Papers**

615 Hazards of closed pesticide mixing and loading systems: the paradox of protective technology in the Third World *Rob McConnell, Mario Cordon, Douglas L Murray, Ralph Magnotti*

620 Occupational and non-occupational hepatitis B virus infection among hospital employees in Jerusalem: a basis for immunisation strategy *Milka Donchin, Daniel Shouval*

626 Histological type of lung carcinoma in asbestos cement workers and matched controls *L Johansson, M Albin, K Jakobsson, Z Mikoczy*

631 In vivo measurements of lead in bone at four anatomical sites: long term occupational and consequent endogenous exposure *J Erkkilä, R Armstrong, V Riihimäki, D R Chettle, A Paakkari, M Scott, L Somervaille, J Starck, B Kock, A Aitio*

645 Influence of the degree of exposure to lead on relations between alcohol consumption and the biological indices of lead exposure: epidemiological study in a lead acid battery factory *C Cezard, C Demarquilly, M Boniface, J M Haguenoer*

648 Biological monitoring of exposure to nerve agents *J Bajgar*

654 Biological monitoring of workers exposed to acetone in acetate fibre plants *Akihiro Fujino, Toshihiko Satoh, Tohru Takebayashi, Hiroshi Nakashima, Haruhiko Sakurai, Toshiaki Higashi, Hiroshi Matumura, Haruo Minaguchi, Toshio Kawai*

658 Blood concentration of carbon disulphide in "normal" subjects and in alcoholic subjects treated with disulfiram *F Brugnone, G Maranelli, S Zotti, I Zanella, P De Paris, S Caroli, A Betta*

664 Mortality among firefighters from three northwestern United States cities *Paul A Demers, Nicholas J Heyer, Linda Rosenstock*

#### **Correspondence**

671 Postpartum changes in maternal blood lead concentrations *W I Manton*  
An industrial disease *M C S Kennedy*

671 Notice

**Papers**

- 673 Certified sick leave as a non-specific morbidity indicator: a case-referent study among nurses *Renée Bourbonnais, Alain Vinet, Michel Vézina, Suzanne Gingras*
- 679 Subclinical impairment of colour vision among workers exposed to styrene *C Fallas, J Fallas, P Maslard, S Dally*
- 683 Musculoskeletal symptoms and type A behaviour in blue collar workers *Bo T Flodmark, Grete Aase*
- 688 Objective testing for vasospasm in the hand-arm vibration syndrome *Judith A Allen, C C Doherty, S McGrann*
- 694 Fatal accidents among Icelandic seamen: 1966-86 *Vilhjálmur Rafnsson, Hólmfríður Gunnarsdóttir*
- 700 Concentrations of individual serum or plasma bile acids in workers exposed to chlorinated aliphatic hydrocarbons *Timothy R Driscoll, Hanan H Hamdan, Ganfeng Wang, Paul F A Wright, Neill H Stacey*
- 706 Dose related acute irritant symptom responses to occupational exposure to sodium borate dusts *Xiaohan Hu, David H Wegman, Ellen A Eisen, Susan R Woskie, Ralph G Smith*
- 714 Pulmonary effects of exposure to fine fibreglass: irregular opacities and small airways obstruction *Kaye H Kilburn, Daniel Powers, Raphael H Warshaw*
- 721 Lung cancer and occupation: results of a multicentre case control study *A Morabia, S Markowitz, K Garibaldi, E L Wynder*
- 728 Malignant melanoma of the skin among workers in a telecommunications industry: a mortality study 1976-83 *Louise DeGuire, Diane Cyr, Gilles Thériault, Simone Provencher, Hilda Iturra, Bruce W Case*
- 732 Survival of asbestos insulation workers with mesothelioma *Joseph Ribak, Irving J Selikoff*
- 736 Follow up study of renal tubular dysfunction and mortality in residents of an area polluted with cadmium *Kokichi Iwata, Hiroshi Saito, Masaki Moriyama, Atsuhiko Nakano*
- 738 Chronic glomerulonephritis and exposure to solvents: a case-referent study *Antonio Porro, Carlo Lomonte, Pasquale Coratelli, Giuseppe Passavanti, Giovanni Maria Ferri, Giorgio Assennato*

**Correspondence**

- 743 Hexachlorophene exposure in a young patient with soft tissue sarcoma *Lennart Hardell*
- 743 Notices

**Papers**

- 745 Hydrogen peroxide release and hydroxyl radical formation in mixtures containing mineral fibres and human neutrophils *Per Leanderson, Christer Tagesson*
- 750 Respiratory disease in non-smoking Western Australian goldminers *A William Musk, Ian L Rouse, Bing Rivera, Nicholas H de Klerk, James C McNulty*
- 755 Agglutination of lung surfactant with glucan *A J De Lucca II, K A Brogden, A D French*
- 761 Evaluation of exposure to polycyclic aromatic hydrocarbons in a coke production and a graphite electrode manufacturing plant: assessment of urinary excretion of 1-hydroxypyrene as a biological indicator of exposure *J P Buchet, J P Gennart, F Mercado-Calderon, J P Delavignette, L Cupers, R Lauwerys*
- 769 Allergy to methyltetrahydrophthalic anhydride in epoxy resin workers *J Nielsen, H Welinder, V Horstmann, S Skerfving*
- 776 Organic brain damage and occupational solvent exposure *N M Cherry, F P Labrèche, J C McDonald*
- 782 Chronic neurobehavioural effects of elemental mercury in dentists *C H Ngim, S C Foo, K W Boey, J Jeyaratnam*

- 791 A case-control study of motor neurone disease: its relation to heritability, and occupational exposures, particularly to solvents *Lars-Gunnar Gunnarsson, Lennart Bodin, Birgitta Söderfeldt, Olav Axelsson*
- 799 Menstrual function in workers exposed to toluene *Tze Pin Ng, Swee Cheng Foo, Theresa Yoong*
- 804 Risk of spontaneous abortion in workers exposed to toluene *Tze Pin Ng, Swee Cheng Foo, Theresa Yoong*

#### **Short reports**

- 809 Fatal injury due to unrestrained vehicle load *David Teanby*
- 811 Lymphocyte subsets in subjects exposed to asbestos: changes in circulating natural killer cells *N Al Jarad, M Macey, S Uthayakumar, A C Newland, R M Rudd*

#### **Correspondence**

- 815 Cigarette smoking and small irregular opacities *W R Lee*  
Sex differences in the risk of multiple myeloma associated with agriculture  
*Shelia Hoar Zahm, Aaron Blair, Dennis D Weisenburger*
- 816 Notices

No 12 DECEMBER 1992

#### **Editorial**

- 817 Preventing occupational asthma *Katherine M Venables*

#### **Papers**

- 820 Psychiatric disorders and occupational exposure to solvents *F P Labrèche, N M Cherry, J C McDonald*
- 826 The histocompatibility antigen in asbestos related disease *N Al Jarad, S Uthayakumar, E J Buckland, T S Green, J Ord, A C Newland, R M Rudd*
- 832 Health hazard of poorly regulated exposure during manufacture of cemented tungsten carbides and cobalt *J Howland Auchincloss, Jerrold L Abraham, Robert Gilbert, Michael Lax, Paul K Henneberger, E R Heitzman, D J Peppi*
- 837 A case-control study of occupational risk factors for laryngeal cancer  
*Pascale Wortley, Thomas L Vaughan, Scott Davis, Michael S Morgan, David B Thomas*
- 845 Contact with pigs and cats associated with high prevalence of *Toxoplasma* antibodies among farmers *Markku Seuri, Pentti Koskela*
- 850 Reductions in lymphocyte subpopulations after repeated exposure to 1.5 ppm nitrogen dioxide *Thomas Sandström, Maj-Cari Ledin, Lissi Thomasson, Ragnberth Helleday, Nils Stjernberg*
- 855 Leukaemia and reproductive outcome among nurses handling antineoplastic drugs *Torsten Skov, Birgit Maarup, Jørn Olsen, Mikael Rørth, Hanna Winthereik, Elsebeth Lyng*
- 862 Chest x ray films from construction workers: International Labour Office (ILO 1980) classification compared with routine readings *M Albin, G Engholm, K Fröström, S Kheddache, S Larsson, L Swantesson*

#### **Short report**

- 869 Classification of chest radiographs for pneumoconiosis: a comparison of two methods of reading *D C F Muir, C D Bernholz, W K C Morgan, J O Roos, J Chan, W Maehle, J A Julian, A Sebestyen*

#### **Correspondence**

- 872 Occupational Health in the new NHS *R Agius, H F V Riddle, A Seaton*  
Occupational Health in the new NHS *R H McBrien, A B Stevens*  
Byssinosis in developing countries *Gerald V Coles*  
Renal and immunological effects on occupational exposure to inorganic mercury  
*G D Nuyts, M E De Broe*
- 874 Notices
- 877 Index to Volume 49