

Re: "Breath analysis: Physiological basis and sampling techniques" by KH Wilson. *Scand J Work Environ Health* 12 (1986) 174—192

It was with great interest that I read the article "Breath Analysis: Physiological Basis and Sampling Techniques." [*Scand J Work Environ Health* 12 (1986) 174—192]. With its numerous references, dating from as far back as 1874, this article clearly reveals the author's wide experience and profound knowledge of the subject.

I was therefore all the more surprised to find no answer to the following question: What is the opinion of the author (and of the referees of the review) of the papers on the list which I enclose in the appendix? All of them report experimental field data on the alveolar air and/or blood of workers occupationally exposed to a variety of industrial solvents, but they appear to have been completely ignored by the author of the article and by the referees.

The fact that all the papers on my list are the work of a group of Italian researchers is no indication of vanity or intellectual chauvinism on my part; I merely believe that the readers of any scientific review have the right to be critically informed of all the previously published data when they read an article which surveys, illustrates, and discusses the advantages and pitfalls of breath analysis from 1874 to the 7th of October 1985.

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Appendix

1. Alveolar air and blood toluene concentrations in roto-gravure workers. *Int Arch Occup Environ Health* 38 (1976) 45—54.
2. Solvent exposure in a shoe upper factory: I n-Hexane and acetone concentrations in alveolar and environmental air and in blood. *Int Arch Occup Environ Health* 42 (1978) 51—62.
3. Solvent exposure in a shoe upper factory: II Methylcyclopentane, 2-methylpentane and 3-methylpentane concentrations in alveolar and environmental air and in blood. *Int Arch Occup Environ Health* 42: (1979) 355—363.
4. N-N-Dimethylformamide concentration in environmental and alveolar air in an artificial leather factory. *Br J Ind Med* 37 (1980) 185—188.
5. Lung uptake and metabolism of cyclohexane in shoe factory workers. *Int Arch Occup Environ Health* 45 (1980) 261—269.
6. Biomonitoring of industrial solvent exposures in workers' alveolar air. *Int Arch Occup Environ Health* 47 (1980) 245—261.
7. Monitoraggio dell'esposizione professionale a fluorocarburi mediante l'analisi dell'aria alveolare e del sangue. *Med Lav* 72 (1981) 480—487.
8. Biomonitoring of occupational toluene exposure. *Int Arch Occup Environ Health* 50 (1982) 153—168.
9. Isopropanol exposure — Environmental and biological monitoring in a printing works. *Br J Ind Med* 40 (1983) 160—168.
10. L'aria alveolare nel monitoraggio dell'esposizione industriale a composti chimici volatili. *Med Lav* 74 (1983) 1—12.
11. Occupational styrene exposure — Environmental and biological monitoring. *Am J Ind Med* 4 (1983) 741—754.
12. Methyl ethyl ketone exposure in industrial workers — Uptake and kinetics. *Int Arch Occup Environ Health* 54 (1984) 73—81.
13. Monitoring of occupational exposure to ethylene oxide by analysis of environmental air, alveolar air and blood. Presented at the International Conference on Organic Solvent Toxicity, 15—17 October, 1984, Stockholm.
14. Occupational exposure to n-hexane — Environmental and biological monitoring. Presented at the International Conference on Organic Solvent Toxicity, 15—17 October, 1984, Stockholm.
15. Concentration of ethylene oxide in the alveolar air of occupationally exposed workers. *Am J Ind Med* 8 (1985) 67—72.
16. Uptake of solvents from the lungs. *Br J Ind med* 42 (1985) 569.
17. Blood and alveolar toluene concentrations in workers during the workshift and the morning after. *Ann Am Conf Ind Hyg* 12 (1985) 283—286.
18. Toxicokinetic aspects of n-hexane and 2,5-hexanedione in the biomonitoring of occupational exposure to n-hexane. *Ann Am Conf Ind Hyg* 12 (1985) 357—364.

Author's reply

My review article on breath analysis [*Scand J Work Environ Health* 12 (1986) 174—192] was directed towards a critical evaluation of breath sampling techniques, together with a discussion on the physiological basis of breath sampling. It was not my intention that it should be an exhaustive review of all the available published data.

The breath sampling procedures adopted by Professor Brugnone's group are based on the glass pipette developed by Stewart and his colleagues. Examples of the contribution made to breath analysis by our Italian colleagues are illustrated in reference 82 (Perbellini et al) and reference 49 (Imbriani et al) of the review.

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