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Letter to the Editor

Effect of copper(II) sulphate impregnation of Chromarods on the sensitivity of the Iatroscan detection system to lipids

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Sir,

A recently published paper¹, indicates that the sensitivity of the Iatroscan TLC/FID to certain lipid classes can be considerably enhanced by impregnation of the Chromarods with copper(II) sulphate. As we routinely carry out lipid class analysis, we have investigated this claim in our own laboratory. Although the signal enhancements we obtained (*i.e. ca.* 37% for triglyceride, 30% for diglyceride, 4% for monoglyceride) were not as great as those obtained by Kaimal and Shantha, we can confirm that enhancement did occur. However we also found that the benefits obtained by copper sulphate impregnation were outweighed by the disadvantages, *i.e.*

(1) Following the proposed cleaning regime for the rods, signal enhancement decreases with successive re-impregnation, until after only 3 or 4 cycles a slight attenuation of the signal (when compared with new un-impregnated rods) becomes noticeable particularly with monoglycerides.

(2) The effect of repeated cleaning/impregnation cycles is to shorten considerably the life of the chromarods, because solvent elution times increase significantly, and perhaps partly as a consequence of this, separations become poorer. This renders the rods virtually unusable after *ca.* 10 cleaning-impregnation cycles (unimpregnated rods we find to last for about 100 runs).

It may be that the authors have ways of restoring the rods not described in the paper, but in our view the method, as published, offers no real advantages.

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¹ T. N. Kaimal and N. C. Shantha, *J. Chromatogr.*, 288 (1984) 177.