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# Quantitative analysis by the CARNAC procedure

Anthony M.C. Davies[1], and Tom Fearn[2]

[1]*Norwich Near Infrared Consultancy, 75 Intwood Road, Cringleford, Norwich NR4 6AA, UK.*
[2]*Department of Statistical Sciences, University College London, Gower Street, London WC1E 6BT, UK.*

CARNAC is a procedure for obtaining quantitative analysis of a sample by comparison of the NIR spectra of the unknown sample with a database of a large number of samples with NIR spectral and compositional data. The method depends on the compression of the NIR database followed by a modification of the compressed data which emphasises the required analyte. The method identifies a few very similar samples and the value of the required analyte is calculated from a weighed average of the analyte values for the selected similar samples.
The method was originally described at Chambersburg IDRC in 1986 and in the Proceedings of the FT Conference of 1987. This contribution will describe recent work on utilising new methods for both compression and modification.