

Comment

on *Regression analysis of exponential palaeodose growth curves*

by V. Poljakov and G. Hütt

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Paljakov and Hutt (1990), hereafter denoted PH90, outlined a standard approach (see texts on nonlinear regression, e.g. Seber and Wild (1989) and references therein) to regression and error analysis for a saturating exponential model but failed to state why this simple approach differs from that proposed by Berger et al. (1987), hereafter denoted BLK87, for the additive dose method. Here I wish to clarify this omission.

Though the form (parameterization) of the exponential equation used in PH90 differs from that used by BLK87 (PH90 do not state why their equation is "more convenient"), this difference is not important here. What is distinct is the inclusion of a weighted error term in the functional expression of the model of BLK87. For this reason the implication by PH90 that their "straight minimization" method lacks certain disadvantages of the linearization method used by BLK87 is misleading. The simple minimization method of Ph90 is not applicable to the more complicated model of BLK87.

Though BLK87 believe that their regression and error model was the most realistic statistically (see their extensive discussion), subsequent comparisons of different procedures applied to sets of "good" data (Berger and Huntley, 1989) suggest that in many luminescence and ESR applications there may be no significant difference among the alternative procedures.

References

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Computer Column

D. J. Huntley

The 'Nucleus' has announced a new plug-in multichannel scaling board for the PC. It is called the MCS-II and the price is US\$ 995 in the USA. It will count at 200 MHz if the negative NIM input is used, or at about 50 MHz for TTL input. The board is a much cheaper alternative to the PCA board that I reviewed earlier (*Ancient TL*, 1988, 6(2), p18) because it does not perform pulse height analysis in addition to multi-channel scaling. It appears superior to the Ortec ACE MCS board in several respects. Of critical interest is the ease with which it may be operated with a program written by the user. The announcement indicates that it has the same software as the PCA board, and thus there should be little difficulty for those already using this board. Others are advised to consult the review of the PCA board and note that my program (written in Microsoft QuickBasic) for running the PCA is available.

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