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Differential reaction analysis (DRA)—a technique for obtaining differential thermal analysis data from inert substances: a reply

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I appreciate Rogers' comments concerning our paper (Zuberi and Kopp, 1976) and the technique which we named "differential reaction analysis." I have no objection to a review of the name given to this technique as well as the other techniques by the International Confederation on Thermal Analysis to determine whether any (or all) of these variations of DTA should be given a single title such as "reaction differential thermal analysis" (RDTA?).

It should be noted that each of the techniques described briefly by Rogers differs to some degree from the others in experimental procedures, the kinds of materials to be studied, and the hoped-for results. The authors cited by Rogers obviously felt that their techniques provided some information not previously available by routine DTA.

Because Mr. Zuberi is no longer a resident of the U.S.A. and due to other commitments, the investigation of this technique has proceeded very slowly; however, I have gained access to a very sensitive (Mettler) DTA-TGA apparatus and have rerun several of the original specimens. I have confirmed that there is minimal weight loss of the reactant (Li_2WO_4) during repeated heatings, and improved upon the measurements of peak temperatures for the reactions previously detected. Additional small peaks which were not resolved using our small home-made instrument have been detected. I hope to undertake a study of the plagioclase feldspars in the near future.

Regardless of the outcome of any review of names by the International Confederation on Thermal Analysis, I believe that the method proposed by Zuberi and myself will produce differential thermal curves for some rather high-temperature, "inert" silicates for which no data was previously available. A rose by any other name . . .

Reference

Zuberi, Z. H. and O. C. Kopp (1976) Differential reaction analysis (DRA)—a technique for obtaining differential thermal analysis data from inert substances. *Am. Mineral., 61,* 281–286.

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