JOURNAL OF CATALYSIS 49, 244 (1977)

LETTERS TO THE EDITORS

Comments on "Involvement of Free Radicals in the Aqueous Phase Catalytic Oxidation of Phenol over CuO"

In an article in this journal by Sadana and Katzer (*1*), the authors indicated that samples were analyzed for phenol by gas chromatography using a 6-ft column packed with Porapak N.

We wish to advise that our attempts to reproduce this analysis under conditions identical to those indicated in their articles have failed.

Conversations with agents of Waters Associates Inc. (Milford, Mass.) confirm that Porapak N packings are porous polymer beads which exhibit high water retention, i.e., they are highly polar materials. Consequently, they cannot be used for the analysis of phenol which has, in the gaseous phase, an appreciable dipole moment. Thus, we are advised that Porapak N should not be used for analysis of polar substances, because the elution time will be prohibitively large. Instead, Waters Associates recommend 80–100 mesh Porapak P in a 4-ft column at 200°C for phenol analysis.

We are consequently puzzled as to how the authors obtained their analyses. We suspect that an error was made in reporting the type of chromatographic column and conditions actually used.

REFERENCES

1. Sadana, A., and Katzer, J. R., *J. Catal.* **35**, 140 (1974).

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Received December 31, 1976

ISSN 0021-9517