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## Measurements of Temperatures in High-Temperature Furnaces and Processes

*David P. Dewitt and Lyle F. Albright, Editors*

*(AIChE Symposium Series, Vol 82, No. 249)*

The papers in this publication were presented at the National Meeting of the American Institute of Chemical Engineers on March 26 and 27, 1985 Houston, Texas. This symposium is the first one in many years devoted to high temperature measurements in the petroleum, chemical and petrochemical industries.

### CONTENTS

Background and Perspectives on Temperature Measurements in Furnaces. Tube-Wall Temperature Measurements in Fired-Process Heaters: Survey of Existing Techniques and Recommendations. A Tube Wall Temperature Monitoring Program. Radiometric Temperature Measurements of Furnace Loads: Optimum Choice of Operating WaveBand. The Effects of Absorption Coefficients on Radiometric Measurements In Process Furnaces. Practical Considerations in the Infrared Measurement of Hot Gas, Flame, and Tube Wall Temperatures. Examinations of the Thermal Conditions of the Catalytic Oxidation Operations. Process Control Tube-Skin Thermocouples. Measurement of Tube-Skin Temperatures of Process Fired Heaters. Panel Discussion: The Technology of High-Temperature Measurements.

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