of beryllium oxide from 150° to 400° increases its specific surface somewhat.

Porosity of the end product is affected by the nature of the anion ($SO_4^=$ or NO_3^-) of the salt used to precipitate beryllium hydroxide. The $SO_4^=$ ion promotes formation of beryllium oxide of high specific surface.

Electroconductivity of Vanadium Catalysts in Oxidation of Methyl Alcohol

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Electrical resistance of vanadium catalysts containing added potassium sulfate was determined in air and in oxidation of methyl alcohol to formaldehyde. The results show that small dosages of added potassium sulfate decrease electrical resistance of vanadium pentoxide and that large amounts of this additive increase it.

On the basis of chemical analyses *and* activity and electrical resistance measurements of the vanadium catalysts studied, a concept of alternate oxidation-reduction is proposed to explain their properties in the reaction studied.

The Active Component of Vanadic Oxide in Catalytic Oxidation of Naphthalene

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The results of activity–phase composition correlations for different vanadium oxide catalysts show that the active components of vanadic oxide catalyst in oxidation of naphthalene to phthalic anhydride are V_2O_4 and V_6O_{13} *and* that V_2O_5 serves merely as a source for their production.

Mechanism of Oxidation of Propylene and Propylene Oxide Over Silver Metal Catalyst

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The mechanism of oxidation of propylene and propylene oxide over a silver metal catalyst was studied by partition calorimetry at temperatures of 185° to 416° and at gaseous reaction mixture pressures of 30 to 70 mm Hg. The results show that the process is of heterogeneous type. Presence of two maximum points on the heat loss curves is characteristic of the two-stage processes.

The results also show that at the conditions studied the propylene oxide formed by oxidation of propylene over silver catalyst is subsequently isomerized to acetone and propyone aldehyde. Addition of propylene oxide to the propylene being oxidized increases temperature of the catalyst, probably because of concomitant oxidation of these substances.

Calculation of Rate Constants for Three-Stage Parallel-Series Reactions of Second Order

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A method is described to calculate the rate constants of three-stage parallel-series second order reactions involving monoorganosilanes. A program is described for use in computers of Ural-1 type. A procedure to calculate the rate constants is presented in detail.

A Reactor for Thin-Layer Catalytic Reactions in Liquid Phase

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A novel reactor is described to study reactions in liquid phase. In this reactor mixing of any type can be carried out, from a simple shaker-type mixing to complex mechanical stirring to form thin-layer homogeneous suspensions.

Letters to the Editors

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3. V. M. Masteekheen, L. M. Kef'yelee, N. P. Ke'yer: EPR Spectra Formed in Oxygen Adsorption on Rutile. Institute of Catalysis of Siberian Division of the Academy of Sciences of USSR.