

1927

The Adsorption of Hydrogen, Ethylene and Ethane by Tin Oxide

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Recommended Citation

Goergen, Sylvia M. and Pearce, J. N. (1927) "The Adsorption of Hydrogen, Ethylene and Ethane by Tin Oxide," *Proceedings of the Iowa Academy of Science*, 34(1), 217-217.
Available at: <https://scholarworks.uni.edu/pias/vol34/iss1/43>

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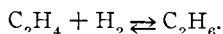
Solubilities per unit area increase with rise in temperature up to 80 degrees Centegrade.

COE COLLEGE,
CEDAR RAPIDS.

THE ADSORPTION OF HYDROGEN, ETHYLENE AND ETHANE BY TIN OXIDE

SYLVIA M. GOERGEN AND J. N. PEARCE

The adsorption of hydrogen, ethylene and ethane by tin oxide has been studied at several temperatures. Calculations of the adsorption magnitudes have been made on the assumption that helium is not adsorbed. The tin oxide used has been found to be very stable and is easily reproducible. The problem is being extended to include the study of the catalytic influence of the oxide upon the velocity of the reaction:



STATE UNIVERSITY,
IOWA CITY.

THE INFLUENCE OF HYDROGEN ION CONCENTRATION AND ELECTROLYTES UPON THE TURBIDITY, SENSITIVITY AND SETTLING RATES OF CERTAIN PLEISTOCENE CLAYS

HOYT C. GRAHAM AND J. N. PEARCE

The relative turbidity of the permanent colloidal suspensions from the different strata have been measured by means of a specially constructed tyndallmeter. The amount of clay which can be held in water suspension has been found to depend upon the stratum from which the clay was obtained, upon the hydrogen ion concentration, and upon the concentration of the electrolyte present in the suspension. In so far as the work has proceeded, we have found that the turbidity attainable is greater for the oxidized and leached strata than for the gumbotil; furthermore, for any one stratum, the maximum permanent turbidity is greater in the Kansan than in the Nebraskan.

The relative turbidity increases with increasing pH value until a certain maximum turbidity is reached, and then it decreases rapidly with further increase in pH. Except in the case of the