

## ABSTRACT

A system was designed and constructed to study the adiabatic saturation and the reactivation characteristics of silica gel. The humidity, temperature, and flow rate of the air were varied, while the depth of the bed was kept constant. Approximate mathematical models were devised for saturation and reactivation. The models gave the correct orders of magnitude for time required for cooling of the bed during adiabatic saturation, and for reactivation time.

RATE OF REACTIVATION OF SILICA GEL  
UNDER ADIABATIC CONDITIONS

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A Thesis  
Presented to  
the Faculty of the Graduate School  
Tennessee Technological University

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In Partial Fulfillment  
of the Requirements for the Degree  
MASTER OF SCIENCE  
Chemical Engineering

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by  
Ramesh V. Thakkar

June 1968

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CERTIFICATE OF APPROVAL OF THESIS

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Approved for the Faculty



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