MEMOIRS OF THE FACULTY OF ENGINEERING KYOTO UNIVERSITY

VOLUME XVII

1955

Published by the University. KYOTO, JAPAN.

CONTENTS

| No. 1 | | PAGE |
|---|---------------------|------|
| Researches on the Fatigue under Consideration of the | : | |
| Phenomenon of Elastic Hysteresis | Мinoru KAWAMOTO | |
| an | d Kunio Nishioka | 1 |
| Transient Voltages across Series Capacitors on Three- | | |
| Phase Transmission Line due to Non-Simultaneous | ; | |
| Switching | Shigenori Hayashi | |
| an | d Akira Kısнıма | 30 |
| The Internal Timescale of High Polymers | Shigeharu Onogi | 44 |
| On the Causes of Misfires of Electric Detonators in | l . | |
| Mines. | Ichiro Ito | |
| | Yoshikazu Wakazono | |
| an | d Yuzo Fujinaka | 60 |
| | | |
| No. 2 | | |
| On the Theoretical Solution of Highway Traffic Capacity | , | |
| Under Mixed Traffic. | | 79 |
| Fog Formation in a Cooler Condenser. | Tokuro Mizushina | 99 |
| Creep of Eccentrically Loaded Short Reinfored Concrete |) | |
| Columns. | Shizuo Ban | |
| an | d Kiyoshi Okada | 116 |
| Primary Power of the Hydro Electric Power Plant | Taturo Окиво | |
| | d Hiroshi Nishihara | 139 |
| Über den Fugenabstand der Fahrbahnbetondecken | Yasuo Kondo | |
| | d Akira Yosнімото | 156 |
| On the Forced Steady Oscillations in a Nonlinear Closed | | |
| Loop Control System. | | |
| • | d Eiichi HIROSAWA | 166 |

| Studies on the Power Requirement of Mixing Impellers (I). | |
|--|----------------------|
| -Liquid Flow and Power Requirement for Paddle | |
| Agitators in Cylindrical Vessels— | Shinji NAGATA |
| N | Vaoya Yoshioka |
| and T | Cohei Yokoyama |
| Studies on Glass Tank Furnace: | |
| III. Role of the Convection CurrentI | kutaro Sawai |
| K | Katsuaki TAKAHASHI |
| and H | Hiroshi JINNO186 |
| Kinetics of Polymerization of Allyl CompoundsI | chiro Sakurada |
| and G | Gisaku Takahashi212 |
| Fmulsion Polymerization of Water-soluble MonomersS | Seizo Okamura |
| and T | Takuhiko Motoyama220 |
| Investigation on Acid-Resistant High-Silicon Iron (I). | |
| -Effects of Silicon and Carbon Contents on Mechanical | |
| Properties, Corrosion Resistance and ShrinkageF | Iiroshi Sawamura |
| | Osamu Tajima |
| and K | Kyoichi Akamatsu231 |
| No. 4 | |
| Studies on the Power Requirement of Mixing Impellers (II). | |
| —Method of Measuring Power Consumption—S | Shinji NAGATA |
| and T | Tōhei Үокочама253 |
| Analtical Considerations on Cnoidal and Solitary Waves Y | Yoshiro Iwasa264 |
| Mass and Heat Transfer in a Falling Liquid Film of | |
| Wetted Wall Tower | Saburo Kamei |
| and J | un Oishi277 |
| On the Constitution of Copper-Ferrite | sao Kushima |
| and T | Suyoshi Amanuma290 |