

# The Review of Physical Chemistry of Japan

Vol. 44, 1974

## CONTENTS

### No. 1

- Kaoru Date and Hiroji Iwasaki** : Evaluation of  $P$ - $V$ - $T$  Properties Data,  
The Most Probable Values of Compressibility Factor of Propane and Propene.....1
- Izumi Ishihara, Kimihiko Hara and Jiro Osugi** : Pressure Effects on the  
Complexes of Cobalt (II) Chloride and Cobalt (II) Bromide in Acetone Solution.....11
- Tateo Arimoto and Jiro Osugi** : The Charge-Transfer Interaction and Successive  
Thermal (2+2) Cycloaddition of  $\alpha$ ,  $\beta$ - Unsaturated Ethers with Tetracyanoethylene .....25
- Takeshi Fujii** : Kinetic Studies on the Rearrangement of  $N$ -Chloroacetanilide under  
Pressure .....38

### No. 2

- Masaru Nakahara** : Derivation of El'yanov and Hamann's Empirical  
Formula and Another New Formula for Pressure Dependence of Ionization Constants.....57
- Fujio Tanaka** : Pressure Effect on Intersystem Crossing from  
the First Excited Singlet State of Anthracene and Its Derivatives in Solution.....65
- Masami Okamoto** : Studies on the Bulk Polymerization of Aliphatic  
Aldehydes under High Pressure .....77
- Shozo Kishimoto** : On the Activity Sequence of Cold-Worked Metal Catalysts for  
the Hydrogenation of Ethylene.....89
- Tsutomu Takahashi, Kimihiko Hara and Jiro Osugi** : The Self-Condensation of  
Cyclohexanone and Methylcyclohexanone under Very High Pressure .....93
- Tadashi Makita, Yoshiyuki Tanaka and Akira Nagashima** : Evaluation and  
Correlation of Viscosity of Gaseous Ethane and Ethylene ..... 98

*Published by*

THE PHYSICO-CHEMICAL SOCIETY OF JAPAN  
*Faculty of Science, Kyoto University, Kyoto, Japan*