

## ABSTRACTS

study the influence of degrees of polymerization on the second-order transition temperature was investigated. The fractionated PVA films with various degrees of polymerization (DP 140-4635) were used in the experiment. The influence of polymerization were not detected.

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### Electrophoretic Mobility of Polyelectrolytes. (I)

#### Electrophoretic Mobility of Polyvinyl Alcohol

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*Chemistry of High Polymers (Kobunshi Kagaku)*, **14**, 624 (1957)

The electrophoretic mobility of polyvinyl alcohol was measured with the Tiselius' apparatus. It was found, that polyvinyl alcohol molecules were negatively charged. The mobility depends on the concentration of the polyelectrolyte, but is almost independent from the polymerization degree of the polymer. From the theory of the polymerization and the experimental determination of Yoshizaki the highest possible carboxyl content of polyvinyl alcohol is one or two carboxyl groups per molecule, but the experimental found number of charge is much greater than this value.

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### Studies on Line Structures in Single Crystals of Tin. (IV)

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*Journal of the Japan Institute of Metals (Nippon Kinzokugaku Kaishi)*, **21**, 279 (1957)

An examination was carried out microscopically and X-ray analytically with single crystals of 99.87 % pure tin, in order to clarify the relation between the temperature gradient and the substructures (corrugations and striations) which had been observed in single crystals of tin grown from the melt. The features obtained by increasing the temperature gradient from 13°C/cm to 45°C/cm, are summarized as follows :

- (1) The direction of corrugations inclines steeply from the direction of easy growth, [110], towards that of the specimen axis.
- (2) The striations are easy to generate.
- (3) On the free top surface of the single crystals of 99.87% pure tin grown