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| 一覧 | 丸田 哲・松本 一郎・大崎 隆

| 巻 | 26

| 号 | 94-94

| 年 | 1976

| URL | http://hdl.handle.net/10097/27782
the amorphous iron alloys is attributed to the peculiar film formation partly by
the presence of Cr and a large quantity of P in the alloys and partly by a single
phase of the amorphous state.

**Magnetostriiction of Amorphous Fe_{0.80}P_{0.13}C_{0.07} Ribbon**
N. Tsuya, K.I. Arai, Y. Shiraga, M. Yamada and T. Masumoto

The saturation magnetostriiction constants and the forced magnetostriiction of
the amorphous Fe_{0.80}P_{0.13}C_{0.07} ribbon are measured from liquid nitrogen to room
temperatures by a three terminal capacitance method. As a result, the saturation
magnetostriiction constants $\lambda_4$ are not completely isotropic but partly anisotropic
with direction of the ribbon, and the average constant is $31 \times 10^{-6}$.

**Electrical Properties of Amorphous Cu-Zr Alloy**
T. Murata, S. Tomizawa, T. Fukase and T. Masumoto
Scripta Met., 10 (1976), 181.

The electrical resistivity of amorphous Cu_{60}-Zr_{40} alloy and the temperature
coefficient of the resistivity are estimated to be $195 \mu \Omega \cdot \text{cm}$ and $-1.23 \times 10^{-2} \mu \Omega \cdot \text{cm}^\circ \text{K}$
at $273^\circ \text{K}$, respectively. The Hall coefficient and the thermoelectric power are equal
to $+7.4 \times 10^{-11} \text{m}^2/\text{AS}$ and $+0.39 \mu \text{V}^\circ \text{K}$, respectively. These electrical properties
are similar to those for some liquid transition metals.

**High Frequency Core Loss and Initial Permeability of Ferromagnetic Amorphous Ribbons**
Noboru Tsuya, Masamichi Yamada, Ken Ichi Arai, Tsuyoshi Masumoto and
Hiroyasu Fujimori

For the purpose of practical applications of the amorphous Fe$_3$Co$_{70}$Si$_{15}$B$_{10}$
ribbon to high frequency magnetic material, the initial permeability $\mu_i$, the loss
factor $\tan \delta$ as well as the quality factor were measured in the frequency region
from 3 kHz to 70 kHz by using a Maxwell Bridge. $\mu_i$ is almost independent of
the intensity of magnetic field and increases monotonically with a decrease of the
frequency. $\tan \delta$ increases linearly with an increase of the frequency in the initial
permeability region. $\tan \delta/\mu_i$ is a good linear function of the square of the
thickness and increase with an increase of the frequency. From these experiments,
it was found that among losses, the eddy current loss is most essential in the high
frequency region in the amorphous ribbons.