

JOURNAL OF SCIENCE  
OF THE  
HIROSHIMA UNIVERSITY

SERIES A

*(MATHEMATICS, PHYSICS, CHEMISTRY)*

---

Volume 18

1954-1955

---

PUBLISHED BY THE  
**HIROSHIMA UNIVERSITY**  
HIROSHIMA, JAPAN

# TABLE OF CONTENTS

VOLUME 18, 1954-1955

*Mathematics*

	PAGE
<b>KINOHARA, A.:</b> A Note on the Relative 2-Dimensional Cohomology Group in Complete Fields with Respect to a Discrete Valuation .....	1
<b>KINOHARA, A.:</b> On the Different Theorem in Complete Fields with Respect to a Discrete Valuation .....	9
<b>MITSUO, F.:</b> A Note on the Commutativity of Certain Rings .....	13
<b>MORINAGA, K. and NISHIGORI, N.:</b> A Note on Correction .....	399
<b>MORINAGA, K. and NÔNO, T.:</b> On the Non-Commutative Solution of the Exponential Equation $e^x e^y = e^{x+y}$ II .....	137
<b>MORINAGA, K. and NÔNO, T.:</b> On the Complex Orthogonal Trans- formations .....	349
<b>NAKANO, N.:</b> Über das Produkt von Primäridealén im Unendlichen Algeb- raischen Zahlkörper .....	129
<b>NAKANO, N.:</b> Über den Primäridealquotienten im Unendlichen Algebri- schen Zahlkörper .....	257
<b>NAKANO, N.:</b> Idealtheorie im Stiemkeschen Körper .....	271
<b>NISHIGORI, N.:</b> A Note on Lattice Segment .....	123
<b>OGASAWARA, T.:</b> A Theorem on Operator Algebras .....	307
<b>OGASAWARA, T. and YOSHINAGA, K.:</b> Weakly Completely Continuous Banach *-Algebras .....	15
<b>OGASAWARA, T. and YOSHINAGA, K.:</b> A Characterization of Dual B*-Algebras .....	179
<b>OGASAWARA, T. and YOSHINAGA, K.:</b> A Non-Commutative Theory of Integration for Operators .....	311
<b>SHIBATA, T.:</b> On Lorentz Transformations and Continuity Equation of Angular Momentum in Relativistic Quantum Mechanics .....	391
<b>TÔGÔ, S.:</b> On Splittable Linear Lie Algebras .....	289
<b>URABE, M.:</b> Infinitesimal Deformation of Cycles .....	37
<b>URABE, M.:</b> Infinitesimal Deformation of the Periodic Solution of the Second Kind and its Application to the Equation of a Pendulum .....	183
<b>URABE, M.:</b> The Least Upper Bound of a Damping Coefficient Ensuring	

the Existence of a Periodic Motion of a Pendulum under Constant Torque .....	379
<b>URABE, M.:</b> Errata to "Infinitesimal Deformation of Cycles".....	401
<b>URABE, M. and YANAGIHARA, H.:</b> On Numerical Integration of the Differential Equation $y^{(n)}=f(x, y)$ .....	55

*Physics*

<b>KOBAYASHI, S.:</b> Madelung Energy of Cuprous Sulphide $\beta$ -Cu <sub>2</sub> S .....	83
<b>KUWAHARA, K.:</b> Longitudinal Magneto-resistance Effect of Narrow Single Crystal Strips of Iron (I) .....	87
<b>MATSUDA, N.:</b> Dark Conductivity of Cadmium Sulphide .....	77
<b>YAMASHITA, T.:</b> The Effect of Annealing on Young's Modulus of the Single Crystal Plate Deformation of Aluminium .....	221
<b>YAMASHITA, T.:</b> On the Plastic Deformation of the Single Crystal Plates of Aluminium .....	227

*Chemistry*

<b>ABE, Y., KADO, Y., SHINAGAWA, M., TAKANAKA, J. and YAJIMA, S.:</b> Measurements of Calcium Adsorption by Oyster Shell Using Ca <sup>45</sup> . .....	245
<b>ABE, Y., KADO, Y., SHINAGAWA, M., TAKANAKA, J. and YAJIMA, S.:</b> Measurements of Biochemical Deposition of Calcium by Oyster Kept in Sea Water of Three Different Calcium Content Labeled with Ca <sup>45</sup> . .....	249
<b>FUJITA, K. and MATSUURA, T.:</b> Oxidation of Terpene Compounds with Tertiary Butyl Chromate. II. Oxidation of d-Carvomenthene.....	455
<b>FUNAHASHI, T.:</b> Isomerization of $\alpha$ -Pinene to Camphene (Part 1).....	461
<b>FUNAHASHI, T.:</b> Isomerization of $\alpha$ -Pinene to Camphene (Part 2).....	469
<b>FUNAHASHI, T.:</b> Isomerization of $\alpha$ -Pinene to Camphene (Part 3).....	477
<b>FUNAHASHI, T.:</b> Isomerization of $\alpha$ -Pinene to Camphene (Part 4).....	491
<b>FUNAHASHI, T.:</b> Studies on the Bertram-Walbaum Hydration (Part 1) .....	497
<b>MATSUURA, T. and ARATANI, T.:</b> Studies on Cineole. X. Action of Sodium Peroxide on Cineole. ....	253
<b>MATSUURA, T. and ARATANI, T.:</b> Action of Lead Tetraacetate on Terpinhydrate in the Presence of Acetic Anhydride. ....	339