

# BULLETIN OF COLLEGE OF MEDICAL SCIENCES TOHOKU UNIVERSITY

VOL. 12, NO. 1, 2003

## CONTENTS

### Original Papers

Cognition, Emotion, and Coping Strategies of the Nurses Who were Involved in the Care of a Female with Obsessive-Compulsive Disorder Fumiko SAI and Machiko ISHIDA .....	1
The Education Attainment Level Investigation in the Graduation of the Midwife Student — The Evaluation between Student and Clinical Midwife — Kineko SATO, Sachiko SATO and Rie SATO .....	11
A Trial Generator Function Common for Charge and Momentum Density Distributions in Valence Electron System in Solid Teiji KOBAYASI .....	21
Development of Japanese Version of Picot's Caregivers' Reward Scale and Comparison Analysis with Positive Gain Scale for Professional Caregivers Etsuo HORIKAWA, Takashi NAKAMURA, Sachiko SANNO, Noriyuki OGAWA, Mituhiro HAYASHIZAKI, Toshihumi MATSUI, Hiroyuki ARAI, Hidetada SASAKI and Seiro KITAMURA .....	27
Phoneme Recognition using Pulse Coupled Neural Networks with a Radial Basis Function Masao SAKAI, Taiji SUGIYAMA and Noriyasu HOMMA .....	35
A Simulation Method for Evaluation of Tumor Cell Proliferation and its Inhibitory Kinetics by Multi Divided Irradiation Using "Mathematica" Yukihiko SATO .....	43
Comparison between Electromyogram and Mechanomyogram during Isometric Muscle Contraction by Frequency Analysis Takahide OGURA, Kazunori SEKI, and Masayoshi ICHIE .....	49
The Measurement of Fundamental Physical Character of Radiography — Study on FFD and Positioning — Masaomi SASAKI, Mikio OISHI, Shizuko ABE, Sachiko MURAKAMI, Kenji FUDA and Masayuki ZUGUCHI .....	65
<b>Announcement</b>	
On copyright of papers published in Bull. Coll. Med. Sci. Tohoku Univ. ....	79
<b>Comulative Title and Author Index separated according to Departments</b>	
Vol. 1~Vol. 11 .....	81
<b>Rules and Guide for Contributions</b> .....	97