

目 次

(研究論文)

塗装したスギ直交集成板 (CLT) の耐候性評価と継時非破壊観察	.....	谷岡晃和、井口皓介、孕石剛志	1
複雑形状部品の姿勢制御とリアルタイム測定を実現する立体駆動装置の開発	.....	福谷武司	9
藻場食害対策としての持続可能なウニ養殖技術の開発 (第1報) 養殖方法の違いがムラサキウニの品質に与える影響	.....	仁木大輔・長崎稔拓・加藤愛	13
藻場食害対策としての持続可能なウニ養殖技術の開発 (第2報) ウニ生殖腺の新規冷凍保管に向けた身溶け抑制試験と味への影響評価	.....	仁木大輔・長崎稔拓・加藤愛	19

(技術レポート)

法線ベクトル推定AIの開発	.....	福留祐太	25
再生可能エネルギー由来の水中水素ドローンの開発	.....	福谷武司、高島主男、森脇孝、馬田秀文、竹本利治、逢坂和雄、高田功二、椎名恵、相澤俊子	29
滴定実験によるさびの発生・成長過程の観察	.....	高濱元史	33
製パンに活用可能な酒粕素材の開発	.....	山川三穂、本多美恵、矢富満寿美	37

(他誌発表論文再録)

光切断法を用いた非接触振動計測用の自己振動検知技術	.....	吉田大一郎、山根知之、福留祐太	43
Usefulness of hand sensor device for lumbar load estimation	.....	Yusuke Yoshida, Takashi Kamezaki, Dai Kinoshita and Daisuke Kushida	45
アシストロボットの腰部負荷追従制御が筋疲労に与える影響	.....	吉田 裕亮、亀崎 高志、櫛田 大輔	53
Synthesis of TiC-Ti Composites via Mechanical Alloying/Spark Plasma Sintering Using Ti and C Powders	.....	Ryo Tsukane, Kazuhiro Matsugi, Yong-Bum Choi and Hiroyasu Tamai	59
(他雑誌掲載文献リスト)	.....		67

CONTENTS

(Research Papers)

Weather Resistance Evaluation and Successive Non-destructive Observation of Coated Sugi (<i>Cryptomeria japonica</i> D.Don) Cross-laminated Timber (CLT)	Akikazu Tanioka, Kousuke Iguchi, Takeshi Haramiishi	1
Development of a three-dimensional drive device for the posture control and real-time measurement of parts with complex shapes	Takeshi Fukutani	9
Development of sustainable sea urchin aquaculture technology as a measure against seaweed bed damage (First Report)		
Impact of different aquaculture methods on the quality of purple sea urchins	Daisuke Niki, Toshihiro Nagasaki, Ai Kato	13
Development of sustainable sea urchin aquaculture technology as a measure against seaweed bed damage (Second Report)		
Techniques for preventing meat degradation and evaluating the effect of the new frozen storage method on the taste of sea urchin gonads	Daisuke Niki, Toshihiro Nagasaki, Ai Kato	19
(Technical Reports)		
Development of Artificial Intelligence for Normal Vector Estimation	Yuta Fukudome	25
Development of Underwater Drones Powered by Renewable Hydrogen		
Takeshi Fukutani, Kazuo Takashima, Takashi Moriwaki, Hidefumi Mada, Toshiharu Takemoto, Kazuo Osaka, Koji Takada, Megumi Shiina and Toshiko Aizawa		29
Observation of Rust Formation and Growth through Titration Experiments	Motofumi Takahama	33
Development of the Available Sake lees Materials for Baking Bread	Miho Yamakawa, Mie Honda, Masumi Yatomi	37
(Paper reprinting presented by another magazines)		
Self-vibration detection technique for non-contact vibration measurement using the light-section method	Dai-ichiro Yoshida, Tomoyuki Yamane and Yuta Fukudome	43
Usefulness of hand sensor device for lumbar load estimation	Yusuke Yoshida, Takashi Kamezaki, Dai Kinoshita and Daisuke Kushida	45
Effects of Controlling Assist Robots to Follow Lumbar Load on Muscle Fatigue	Yusuke Yoshida, Takashi Kamezaki and Daisuke Kushida	53
Synthesis of TiC-Ti Composites via Mechanical Alloying/Spark Plasma Sintering Using Ti and C Powders Fatigue	Ryo Tsukane, Kazuhiro Matsugi, Yong-Bum Choi and Hiroyasu Tamai	59
(List of literatures accepted in other journal)		67