Journal of Life and Environmental Sciences

No. 5

CONTENTS

Articles	
Breakdown of Clubroot Resistance Hiroshimana 'CR Hiroshima No. 2' (Brassica rapa L.)	
······ Takashi OKU, Motoyasu OCHI, Mitsuhiro MAEDA and Suguru CHOKYU	1
Evaluation of carcinogenic/co-carcinogenic activity of mokusaku-eki, a wood chard by-product used as a folk remedy, in BALB/c 3T3 cells Mayumi OKAMOTO, Ryuichiro FUKUTOMI, Masato HORI, Takahiko TSUNO),
Mikiko FUJII and Masaaki TATSUKA	9
Basic study on digestion method upon supercritical water oxidation using hydroge peroxide in super alloy reactor (Hastelloy C-276) for quantitative microanalysisJun NISHIMOTO, Kazue NISHIOKA, Yasuaki OKAMOTO, Kazuaki ITO Etsuro IWAMOTO	
Business analysis of Agricultural Corporations based on the BAST (BUSINESS ANALYSES & STATISTICS by TKC) Yasuyuki SHIKATA 2	29
Note 1 asuyuki SHIKATA 2	.9
Red Rice in the Ancient Times in Japan	10
Student motivation to learn 1 -Examples of Faculty of Life and Environmental Sciences	19
	55
and the contract of the contra	73
Titles of Master's Thesis	35 22
Titles of Ph.D. Dissertations	3
Recent Publications of Facalty Members	4
Faculty Special Research Project	
Field Science Education Research Center	8

March 2013

Faculty of Life and Environmental Sciences Prefectural University of Hiroshima

Summary

Chikusaku-eki and Mokusaku-eki are an acidic dark brown liquid obtained as a by-product from wood charcoal burners. Both of them, diluted by water, are used as a folk medicine for skin diseases such as scabies, eczema, and atopic dermatitis. Here, the carcinogenic and tumor-promoting potentials of both folk remedies obtained from various makers were determined by using the BALB/c 3T3 A31-1-1 in vitro transformation assay system. All of them tested here were non-carcinogenic when applied at 0.1%. On the other hand, three of eight samples showed a suppressive effect on tumor-promotion. Thus, Chikusaku-eki and Mokusaku-eki are non-carcinogenic or incidentally anti-carcinogenic in the in vitro transformation assay when diluted to 1/1,000.