

Aspterric Acid and 6-Hydroxymellein, Inhibitors of Pollen Development in *Arabidopsis thaliana*, Produced by *Aspergillus terreus*

Atsumi Shimada^{a,*}, Miyako Kusano^b, Sumiyo Takeuchi^a, Shozo Fujioka^c, Tomohisa Inokuchi^b and Yasuo Kimura^b

^a Department of Environmental Chemistry, Faculty of Engineering, Kyushu Kyoritsu University, 1-8 Jiyugaoka, Yahatanishi-ku, Kitakyushu-shi, Fukuoka 807-8585, Japan. Fax: +81(0)93-693-3201. E-mail: jun@kyukyo-u.ac.jp

^b Department of Biological and Environmental Chemistry, Faculty of Agriculture, Tottori University, Koyama, Tottori-shi, Tottori 680-8553, Japan

^c The Institute of Physical and Chemical Research (RIKEN), Hirosawa 2-1, Wako-shi, Saitama 351-0198, Japan

* Author for correspondance and reprint requests

Z. Naturforsch. **57c**, 459–464 (2002); received February 8/March 6, 2002

Aspterric Acid, 6-Hydroxymellein, *Arabidopsis thaliana*, *Aspergillus terreus*

Aspterric acid (**1**) and 6-hydroxymellein (**2**), inhibitors of pollen development in *Arabidopsis thaliana*, have been isolated from the fungus *Aspergillus terreus*. **1** and **2** inhibited the pollen development at concentrations of 38 and 52 μM , respectively. The microscopic examination of pollen development suggested that the inhibition by the treatment with **1** caused at meiosis and the inhibition by the treatment with **2** caused at microspore stage. **1** and **2** could be useful agents for the molecular investigation of anther and pollen development in higher plants.