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INTRODUCTION

In view of the recent amendment made in the Patents Act, 1970 by the Patents (Amendment) Act, 2005 effective from 01st January 2005, the Official Journal of The Patent Office is required to be published under the Statute. This Journal is being published on weekly basis on every Friday covering the various proceedings on Patents as required according to the provision of Section 145 of the Patents Act 1970. All the enquiries on this Official Journal and other information as required by the public should be addressed to the Controller General of Patents, Designs & Trade Marks. Suggestions and comments are requested from all quarters so that the content can be enriched.

**(PROF. (DR) UNNAT P. PANDIT)
CONTROLLER GENERAL OF PATENTS, DESIGNS & TRADE MARKS**

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(57) Abstract :

The present invention discloses a dual-valve microbial gas sampling system for non-invasive analysis of volatile organic compounds (VOCs) emitted from microbial cultures. The system comprises a gas-tight syringe (1), a first valve (5) provided on the lid of a microbial culture vessel (2), and a self-sealing septum (11) at junction (4) to allow sterile access. A sampling line (7) connects the first valve (5) to a second valve (8), which is further connected via an injection line (9) to an analytical device (10) such as gas chromatography or mass spectrometry. During operation, VOCs are drawn into the syringe (1) with valve (8) closed, and later injected through valve (8) with valve (5) closed. The components are made of sterilizable, inert materials, ensuring VOC integrity, sterility, and compatibility with various culture containers. Figure 1

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