

meintrup dws laborgeräte

excellence in microbiology

Rapid Microbiological Methods Rapid Automated Bacterial Impedance Technique



The way forward for automation in the microbiology laboratory. Direct and indirect impedance measurements and modular design provide a totally flexible screening system with Windows™-based software adding usability and value.

RABIT – rapid automation in your laboratory providing assurance of quality and improving efficiency

Don Whitley Scientific Limited has taken the measurement of impedance – widely accepted as the most versatile yet least expensive of all rapid bacterial detection methods – and produced an instrument which combines ease of use with leading edge electronic technology.

Two specific techniques offer the user considerable scope.

In the direct technique, metabolising micro-organisms increase the electrical conductance of the culture medium in the system. Rapid Automated Bacterial Impedance Technique (RABIT) for Windows™ measures these changes and provides results faster than by the use of traditional methods.

The indirect technique provides a flexible impedance method which monitors the amount of carbon dioxide produced by growing organisms. This technique – first utilised by Owens at the University of Reading – is particularly suitable for detecting organisms which do not produce highly charged metabolites.

The benefits of RABIT

Four simple steps



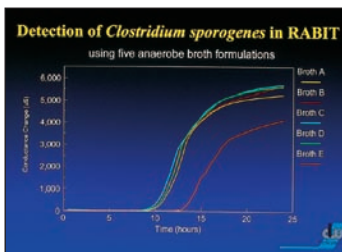
1. Sample preparation



2. One step sample inoculation



3. Place in RABIT



4. Results

RABIT for Windows™ is a compact and versatile system for rapid microbial testing. The modular design enables a laboratory to enter the field of rapid testing with an initial system which comprises a PC fitted with a special data logging facility and a single 32 channel incubator module.

The system can be expanded to provide a total of 512 channels by adding more incubator modules. No further expenditure on computer hardware or software is necessary.

The system is designed to allow tests to be carried out over a range of incubation temperatures to provide maximum flexibility for microbiological testing.

The Windows™-based software provides an easy to operate environment for sample entry and analysis of results. The impressive data handling capabilities are further enhanced by a facility to export generated data for use in various spreadsheet/database software programmes.

RABIT combines high technical specifications with low consumable costs – preserving the major financial advantage of rapid microbial detection. The test cells are durable, re-usable and easy to clean and maintain.

Laboratories in the food, pharmaceutical, petrochemical, public health and dairy industries, in addition to many universities, are using RABIT with excellent results. All Don Whitley Scientific customers have access to our team of engineering, electronics, software and microbiology staff. Any special needs are considered by microbiologists working in our own GLP-compliant laboratories.

Should any development work be necessary to match a RABIT system to your requirements this can be carried out quickly to ensure that you benefit from our considerable experience of impedance microbiology.

RABIT features

Flexible modular design

Fast detection times

Increased test throughput

Simple to use

Re-usable test cell

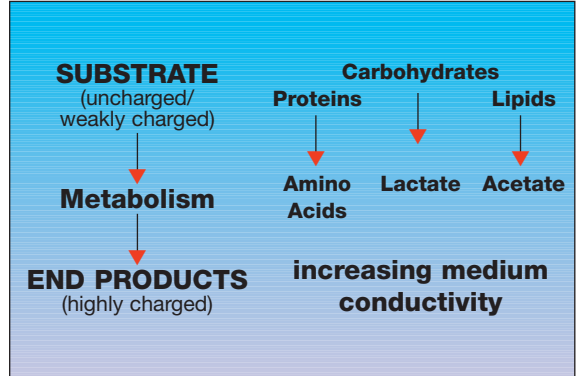
Low cost per test

Direct and indirect techniques

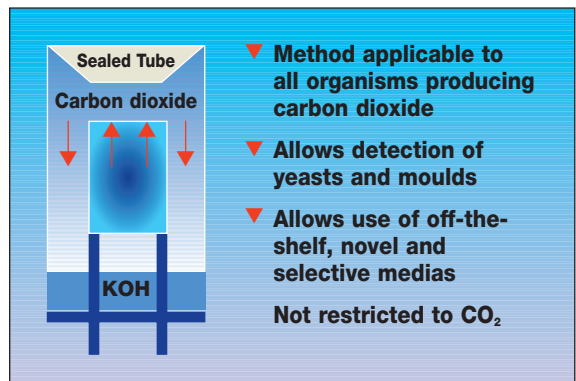
Variable sample volume

Access to culture during tests

Direct Impedance Technique



Indirect Impedance Technique



Applications

- ▼ **Quality Assurance**
 - ▼ raw materials
 - ▼ finished product
 - ▼ water testing
 - ▼ environmental monitoring
- ▼ **Preservative Efficacy/Challenge Testing**
- ▼ **Product Performance**
- ▼ **Antibacterial Studies**
- ▼ **Research & Development**
- ▼ **Total Microbial Load**
- ▼ **Group Screening**
 - ▼ Coliforms
 - ▼ *E. coli*
 - ▼ *Salmonella* spp
 - ▼ Anaerobes
 - ▼ Gram negatives
 - ▼ *Pseudomonas* spp
 - ▼ *Staphylococcus* spp
 - ▼ Sporeformers
 - ▼ Yeasts & Moulds

Training is provided by regular courses run at our Shipley headquarters – this training can be customised to meet your specific applications.

Optional extras include racks to house incubator modules and bar code readers to speed up sample entry.

Standard Features

Up to the minute CPU with pre-loaded software and data-logging facility.

All necessary training will be provided by a DWS microbiologist. The CPU has the option to link with between 1 and 16 incubator modules.

Options

MER01020 32 Channel Incubator Module

Accessories

MER01052 Two Drawer Module Racking Unit for RABIT Modules & CPU Module

Units may be linked either back-to-back or fixed to a load-bearing wall

Consumables

MER00995 RABIT Impedance Cells (pack of 8)
 MEG50001 Whitley Impedance Broth (500g)
 MEG50003 Whitley Enterobacteriaceae Broth (500g)
 MEG50004 Whitley Gram Negative Broth
 MEG50006 Whitley Anaerobe Broth (500g)
 MEG50007 Whitley MacConkey Broth (500g)
 MEG50010 Wort Broth (500g)
 MEG50011 Maximum Recovery Diluent (500g)
 MEG50013 Buffered Peptone Water (500g)

Specification

Order Code: MER02000
 Incubator Dimensions: 400 mm x 600mm x 400mm (w x d x h)
 Weight of Single Module System: 75.5 kg[†]
 Weight of Incubator Module: 35 kg
 Operating Temperature Range: 25°C to 45°C^{††}
 Power supply: 230V ~ ± 10%* - 50/60Hz
 Test Cell Volume: 2-10ml

RABIT Rack



The RABIT rack permits efficient utilisation of laboratory space

*Other voltages available on request.

[†]A single module system consists of a RABIT computer, laser printer, incubator module, colour monitor, keyboard and mouse.

^{††}Use of the equipment outside the normal operating temperature range is possible. Consult DWS Technical Department.

Windows is a registered trademark of Microsoft Corporation

In the interests of a policy of continuous product improvement the company reserves the right to alter product specifications without prior notice. All rights reserved.
 © 2006 Don Whitley Scientific Limited.

Meintrup DWS Laborgeräte GmbH

Am Schultenhof 4, 49774 Lähden; Postfach 21 12, 49772 Lähden

Tel. +49 (0) 5964 202 Fax +49 (0) 5964 1609

www.meintrup-dws.de info@meintrup-dws.de