



## **The Right Permeability Analyzer**

In 1970, Kyoto, Japan-based GTR TEC Corporation (then a division of Yanagimoto Co Ltd) ushered in a new age in the field of permeability analysis. With the introduction of analyzers that used gas chromatography systems to analyze results, for the first time it became possible to simultaneously analyze blended gases, accurately determining the rate of permeation of each individual component. Since then, the company has kept up with the changing demands of its clients, developing systems that operate over the widest possible variety of temperatures, humidity levels and other specialized operating conditions...in short, providing the perfect permeability analyzer for each client's application.

## **The GTR TEC Advantage**

- Traditional permeability analysis systems can only provide information about the total volume of permeate measured. GTR TEC's gas chromatography-based systems provide a precise and reproducible account of the permeation characteristics of each element tested. Even very low concentrations of target materials can be detected with accuracy.
- Proprietary software analyzes results, calculating the permeation rate of each element tested and presenting the information in an easy-to-understand format.
- Specially designed test cells maximize system versatility. Liquids, vapors and various blends can be supplied directly to the substrate sample without waste or atmospheric release. Cells can be designed to meet various substrate sample parameters, including size, thickness and shape. Even hoses and bottles can be tested.
- Full automation offers the greatest ease of use, but manual systems are available for those who prefer more control over each individual operating parameter.
- Systems operate over the widest range of temperatures available in the field of permeability analysis.
- GTR TEC is a dedicated manufacturer of permeability analysis equipment, and is committed to meeting the unique requirements of each client. Even if it means that a system must be modified or a component redesigned, GTR TEC welcomes each new challenge.



### GTR-11A/31A Series: Dry Gas

The dry gas systems use the differential pressure method recognized by JIS, ISO and ASTM to measure permeability of hydrogen, oxygen, carbon dioxide, or any other gas or blend of gases that can be detected by gas chromatography.



### GTR-100GW/30X Series: Gas/Vapor/Liquid Analysis

These systems use the differential pressure method recognized by JIS, ISO and ASTM to measure permeability of water vapor and/or gases under humidified conditions.

Gases and moisture can be measured simultaneously; each component will be analyzed separately to provide the most accurate permeability profile possible.



### GTR-100MW Series Proton Exchange Membrane Testing

The proton exchange membrane testing systems use an isobaric pressure method to test permeability of PEM.

This allows either or both sides of the test cell to be humidified, so that permeation of hydrogen, oxygen, CO<sub>2</sub>, water vapor, etc can be accurately and reproducibly achieved under normal working conditions. These systems are designed to withstand very high temperatures and pressures.

Contract testing services are also available.  
Please contact us for further information.

GTR TEC CORPORATION  
159-2 Megawa Makishima-cho Uji City Kyoto  
Pref 611-0041 Japan  
Tel: +81-774-25-7131  
Fax: +81-774-25-7137  
E-mail: [info@gtr-tec.com](mailto:info@gtr-tec.com)

In North America

Bellex International Corporation  
200 Bellevue PKWY, Suite 180  
Wilmington DE 19809 U.S.A  
Tel: +1-302-791-5180  
Fax: +1-302-791-5190  
[www.bellexinternational.com](http://www.bellexinternational.com)