



Fast, Clean Ion Pumps

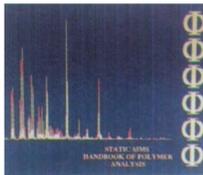
Perkin-Elmer noble gas diode ion pumps deliver fast, contamination-free pumping of all types of gases for a variety of UHV applications. The complete line of

differential, hydrogen and conventional ion pumps are highlighted in the new **Ion Pump Quick Reference Guide**. This free guide includes features and specifications on the complete line of pumps, ranging from 0.2 to 500 l/s.

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NEW! Static SIMS Reference Handbook

The new **STATIC SIMS HANDBOOK OF POLYMER ANALYSIS** from Perkin-Elmer, Physical Electronics



is a unique reference source for the identification and interpretation of positive static SIMS surface analysis data. Included in the handbook is spectra obtained from more than 80 commercially significant polymers, plus a comprehensive discussion of static SIMS analysis.

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NEW! 1992/93 Surface Analysis Components Catalog

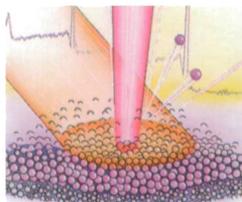
Now available, the new **PHI Surface Analysis Components Catalog** is a complete source of components, sub-systems and ultrahigh vacuum equipment for a variety of surface analysis applications. With over 270 pages of features, specifications and ordering information, the catalog will help you choose the components you need to economically build your own customized, high performance surface analysis system.



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Learn The Secrets To Complete Surface Characterization

Surface analysis can help you develop and enhance the lifetime of your materials. And we'll show you how.



Fundamentals and Applications of Surface Analysis is a workshop presented by Perkin-Elmer Physical Electronics that will introduce you to the benefits of surface analysis. The workshop provides a complete overview of each surface analysis technique, plus a demonstration of surface analysis instrumentation.

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Research Systems At Component Prices

With PHI's Surface Analysis Research Systems, you can get the instrument you need at a cost comparable to "do-it-yourself" component systems. You select the techniques (XPS, ISS, UPS, Auger and LEED) and options which meet your analytical needs and budget. We'll build it, install it, test it and guarantee it for one year. Plus, you get a system based on the proven performance of Perkin-Elmer, Physical Electronics.



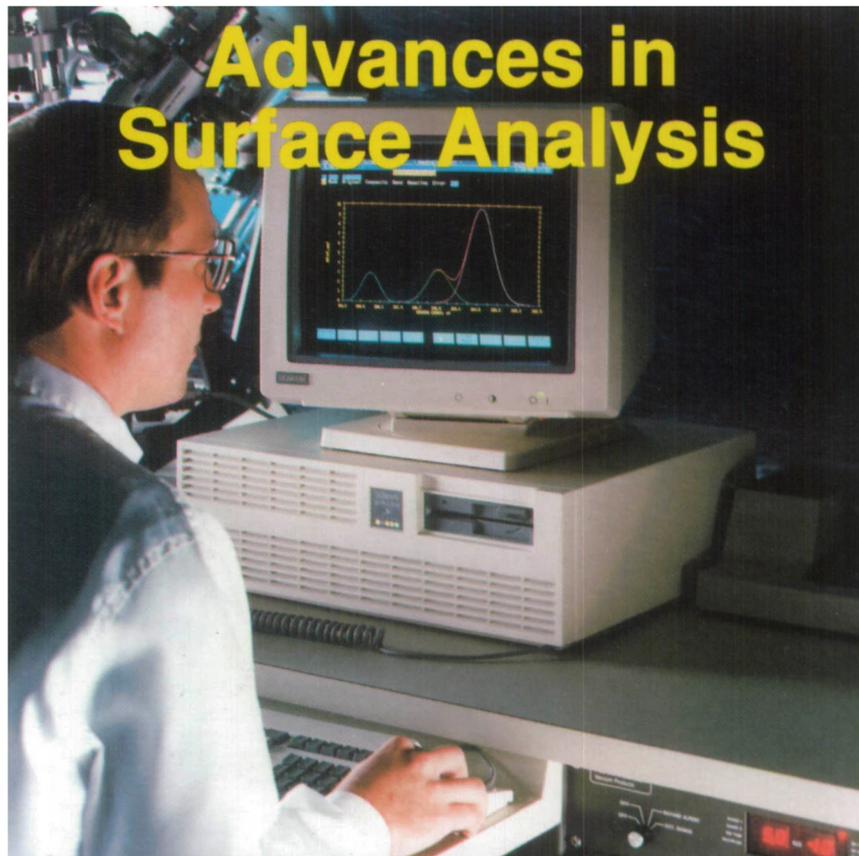
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One System, Multiple Solutions

One system can provide all the answers you need. The PHI 5500 MultiTechnique gives you the ability to employ a combination of analytical techniques for **complete surface analysis solutions**. XPS, Auger, Static SIMS, ISS and UPS provide slightly different, yet synergistic elemental and chemical information, perfect for the demands of corrosion, adhesion and polymer applications.



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Advances in Surface Analysis

PHI continues to deliver the latest technological innovations. . . so you can solve the most difficult surface-related problems.

For over 20 years, PHI has been developing innovative new products, introducing new concepts in analytical instrumentation, and increasing analytical flexibility. . . advances that provide solutions to your surface analysis problems.

Ongoing product development at PHI insures that surface analysis remains responsive to your analytical needs.

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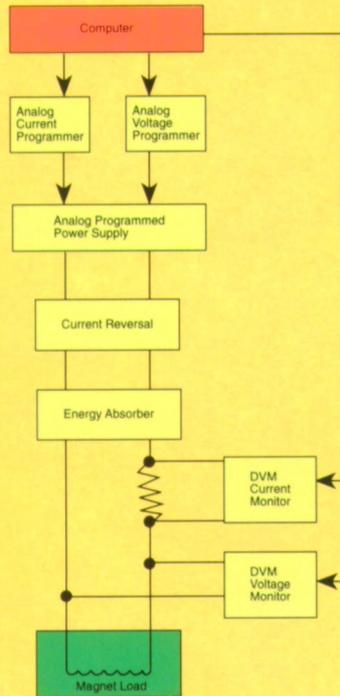


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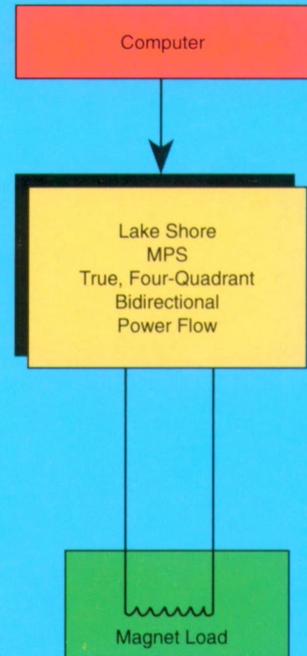
Does This Look Familiar?



How often have you faced this problem?

You're at a positive field and you need to analyze negative field response. You presently struggle with the problem of ramping down, reversing leads, and then ramping back up. You know that the discharge profile will be erratic and any attempt at measurements near zero will be of little value

Lake Shore's MPS
The Integrated Solution



There is a simple solution:
Four-Quadrant Operation
From Lake Shore

From the front panel or over an interface, simply enter the desired negative current value . . . that's it!



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Call (614) 891-2243 for more information about the Lake Shore Magnet Power Supply Solution.



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