The Applied Physics Laboratory
of
The Johns Hopkins University

Announces Appointments
for
SENIOR SCIENTIFIC STAFF

The Assessment Division of The Applied Physics Laboratory has undertaken new responsibilities and is expanding its Senior Analytical Staff. Senior Scientists in such fields as Mathematics, Physics and Physical Chemistry have in the past proven very effective in solving the types of problems involved which include analyses of tactical situations, the employment of future weapon systems and the application of the most recent advances in science and technology.

Performance of the work requires close association with scientists of other laboratories, operations research personnel of all branches of the Armed Services, and with senior military and civilian personnel.

Studies undertaken by this group will provide guide lines for the hardware research of future years. Staff members are expected to initiate ideas in support of a broad program of National Defense needs and carry them through appropriate analyses with assurance that sound results will be given consideration by the responsible agencies.

The Laboratory's locale, equidistant between Baltimore and Washington, D. C., allows staff members to select urban, suburban or rural living and either of these two outstanding centers of culture as a focal point for fine living.

These appointments offer exceptional opportunities. For information and arrangements for interview, write in confidence to:

Dr. Charles F. Meyer
Assessment Division Supervisor
The Applied Physics Laboratory
The Johns Hopkins University
3615 Georgia Avenue
Silver Spring, Maryland
Baird-Atomic's Single Tube Liquid Scintillation Spectrometer obsoletes costly coincidence systems for Carbon and Tritium

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  - Only available from B/A. Advanced engineering provides an extremely high gain and low noise amplifier-analyzer.

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... obsoletes all coincidence systems by eliminating need for optical symmetry. You have complete choice of sample size, shape or material, liquid or solid.

With this new combination of detector and electronics you are now able to assemble a system best suited to your needs and budget. Simple to operate, compact, accurate with or without a freezer, the B/A Model 745 is capable of performing the most sensitive C¹⁴ and H³ counts with speed and precision under a wide range of conditions.

Write today for detailed specifications and optional instrument combinations.

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**DATA WITH TRITIUM**

<table>
<thead>
<tr>
<th>TYPICAL COUNTING EFFICIENCY</th>
<th>FIGURE OF MERIT $\frac{\text{EFF}^2}{B}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>40%</td>
<td>1.75$^*$</td>
</tr>
<tr>
<td>B/A model 745</td>
<td></td>
</tr>
<tr>
<td>double tube coincidence</td>
<td>20%</td>
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</tbody>
</table>

$^*$ The unit $\frac{\text{EFF}^2}{B}$ (efficiency over background) is actually the figure of merit of any counting system. A system with a higher $\frac{\text{EFF}^2}{B}$ lets you count more accurately in a shorter length of time.

- Data taken to optimize figure of merit (-20°C tritiated toluene in toluene, PPO and POPOP, differential operation).

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