



CRYOMAGNETICS, INC.
INNOVATIVE SUPERCONDUCTING MAGNET SOLUTIONS

Breaking New Ground...

- World's first commercial HTS (BSSCO-2223) superconducting magnet system for a gyrotron tube application. (2003)
- World's first commercial 7T liquid cryogen-free superconducting magnet system for Ion Cyclotron Resonance research. (2003)
- World's first superconducting magnet in space. (2005)
- World's first stacked pancake coil wound with long lengths of 2nd Generation HTS (YBCO) material. (2005)
- Latest releases including our new superconducting magnet power supply! (2006)

...Keeping You Ahead

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See www.pt.ims.ca/12304-22

Charge Sensitive Preamplifiers

COOLFET®

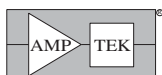
New!!!



Noise @ 0 pF: 670 eV FWHM (Si)
~76 electrons RMS
Noise Slope: 13 eV/pF with Low C_{iss} FET
11.5 eV/pF with high C_{iss} FET
Fast Rise Time: 2.5 ns

FEATURES

- Thermoelectrically Cooled FET
- 3 FETs to match detector
- Lowest Noise and Noise Slope
- AC or DC coupling to the detector
- Both Energy and Timing outputs
- Optional input protection
- Easy to use



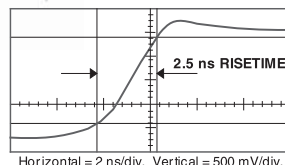
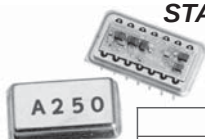
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STATE-OF-THE-ART

A250



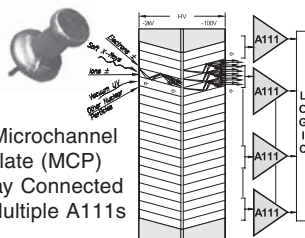
External FET
FET can be cooled
Noise: <100 e⁻ RMS (Room Temp.)
<20 e⁻ RMS (Cooled FET)
Gain-Bandwidth $f_c > 1.5$ GHz
Power: 19 mW typical
Slew rate: >475 V/μs

THE INDUSTRY STANDARD

A111



A Microchannel Plate (MCP)
Array Connected to Multiple A111s



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hazards and making researchers and their results accessible to policymakers.

Earthquakes, fires, droughts, landslides, pandemics, and the like are the focus of the California Hazards Research Institute. "The idea is evolving that we should take a holistic look at hazards and disasters. They have common features, and therefore there may be some underlying way to understand these complex systems from different approaches," says UC Davis's John Rundle, who was key in setting up the institute.

The institute aims to address four stages of hazards: anticipation, mitigation, response, and recovery. One of its first goals is to compile a database of institute researchers and their work. Inclusion of manmade disasters in the institute's purview is still under discussion, Rundle says.

So far, five UC campuses and the Livermore and Los Alamos national laboratories are members. They, together with the UC Office of the President, are providing seed money for the institute totaling \$140 000 a year for three years. TF

Employment data. Fewer physics bachelor's degree recipients are receiving multiple job offers and more are taking part-time jobs or are unemployed after graduation than in the past. Together, those measures reflect a strained economy, according to a new report by the American Institute of Physics on initial employment of US physics and astronomy bachelors, masters, and PhDs of the classes of 2003 and 2004.

The private sector continues to be the dominant employer of physics degree holders at all levels. After three years of decline, the proportion of new physics bachelors immediately entering the job market stabilized at 41% in 2004, down from 52% in 2000.

Salaries in the private sector remained steady for 2003 and 2004. Midrange pay for new bachelors was \$20 000 to \$36 000 for jobs outside of science, math, technology, and engineering and \$30 000 to \$54 000 for jobs in those areas; new masters earned \$43 000 to \$70 000; and new PhDs pulled in \$68 000 to \$90 000.

Some 67% of freshly minted physics PhDs took postdocs, the highest level in the quarter century that AIP has been tracking employment trends.

The *Initial Employment Report: Physics and Astronomy Degree Recipients of 2003 & 2004* is available online at www.aip.org/statistics/trends/reports/emp.pdf. Single copies may be obtained from AIP, Statistical Research Center, One Physics Ellipse, College Park, MD 20740; e-mail stats@aip.org. TF ■