

WORLD'S BEST MCA



6.5 x 2.8 x 0.8 inches (165 x 71 x 20 mm)
<300 grams (including batteries)

Runs for 24 Hours on 2 AA Batteries

The **MCA8000A** is a full featured, low power **Multichannel Analyzer** intended to be used with a wide variety of detector systems.

POWERFUL

- 16k data channels
- Conversion time <5 μ s (>200k cps)
- 2 stage input analog pipeline
- Differential nonlinearity $\pm 0.6\%$
Integral nonlinearity $\pm 0.02\%$
Sliding-scale linearization
- 2 TTL compatible gates for coincidence and anticoincidence
- Stand alone data acquisition

VERSATILE

- Stores up to 128 different spectra
- Two peak detection modes:
First peak after threshold
(nuclear spectroscopy)
Absolute peak after threshold
(Particle counter calibration in clean rooms)
- 115.2 kbps serial interface
- Compatible with USB to RS232 adapters
- Serial ID number via software

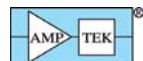
INGENIOUS

- Of course - it's from Amptek

Free Software

PC software supports ROI, energy calibration, peak information, peak search, multiple spectra, & mathematical operation. Download now from www.amptek.com

XRF-FP Quantitative Analysis Software
available now for use with the MCA8000A



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often find themselves at a disadvantage later in life.

Reference

1. S. A. Camarota, K. Jensenius, *A Drought of Summer Jobs: Immigration and the Long-Term Decline in Employment Among U.S.-Born Teenagers*, Center for Immigration Studies, Washington, DC (2010), available at <http://www.cis.org/teen-unemployment>.

Ben Zuckerman

(ben@astro.ucla.edu)

University of California, Los Angeles

Remembering Stoicheff and his rule

It was sad to read about the death of Boris Stoicheff (PHYSICS TODAY, October 2010, page 68). In the obituary, Richard Brewer describes Stoicheff as an excellent physicist. I add that his name is also well known in the chemistry community. In 1962 Stoicheff introduced a principle for carbon-carbon bonds that later became known as Stoicheff's rule; it states that the C-C and C=C bond lengths "increase linearly with an increase in the number of adjacent bonds."¹

In 1972 Kozo Kuchitsu suggested a revision² to Stoicheff's rule. In 1975 my colleagues and I showed that the rule goes beyond its original purpose—organic chemistry—and is applicable to a higher carbon coordination number, namely 6, which is found in carbon-boron compounds known as carboranes.³ Stoicheff himself was surprised by that fact when he visited the University of Moscow in the 1970s.

References

1. B. P. Stoicheff, *Tetrahedron* **17**, 135 (1962).
2. K. Kuchitsu, in *MTP International Review of Science*, Physical Chemistry series 1, vol. 2, G. Allen, ed., Medical and Technical Publishing Co, Oxford, UK (1972), chap. 6.
3. V. S. Mastryukov, L. V. Vilkov, O. V. Dorofeeva, *J. Mol. Struct.* **24**, 217 (1975).

Vladimir Mastryukov

(vladi@cm.utexas.edu)

University of Texas at Austin

On Iran-Israel relations

I was shocked to read the unsubstantiated statements and demonstrably false assertions William Katz made in his letter (PHYSICS TODAY, December 2010, page 8). PHYSICS TODAY should not be in the warmongering business.

Iran has no "stated goal of annihilating Israel," as Katz says, or of wiping it off the map. That is a fiction. Ayatollah Ruhollah Khomeini's words, translated from Farsi, were that "the Zionist regime will pass from the pages of time," like the Soviet regime passed from the pages of time. The *New York Times* was the first to use the word "map," but later back-tracked, and in the 11 June 2006 edition, in the newspaper's Week in Review section, Ethan Bronner subsequently stated that Iran "has never specifically threatened war against Israel."

I am not aware of "thousands of American deaths for which Iran is directly responsible," but I do know that Iran successfully resisted both the Taliban and al Qaeda long before most Americans had ever heard of them. Iran offered sanctuary to US pilots in the first attacks on the Taliban in Afghanistan and gave the US both intelligence and material support against al Qaeda. In my judgment, Iranians generally consider the Taliban religious crazies and al Qaeda godless terrorists.

It is not true that the Iranian government "clamors for war," nor does it "threaten nuclear war." On the contrary, the latest report from the International Atomic Energy Agency shows zero evidence of an Iranian nuclear weapons program, but the US remains suspicious and demands proof of the negative. The exact opposite is more likely the case: I believe that Iran is prepared for a nuclear attack from Israel. One Israeli Knesset member brazenly said that "conventional weapons will not be enough" for an attack on Iran. At the time, the Israeli government made a public threat by sending bombers on a round trip across the Mediterranean that exactly matched the round trip distance to Tehran.

Last January a physics professor was murdered as he left home in the morning on his way to the University of Tehran. Masoud Alimohammadi was a theoretical particle physicist whose last paper, on generalized Gauss-Bonnet dark energy, was published in *Physical Review D*. He had friends around the world, and he collaborated on SESAME (the Synchrotron-light for Experimental Science and Applications in the Middle East) with physicists in the region, including some from Israel.

With surprising ease, I found a hitlist from Iran Watch (<http://www.iranwatch.org>), which is part of the Wisconsin Project on Nuclear Arms Control; it contained Alimohammadi's name, home address, details on his wife