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often find themselves at a disadvantage later in life.

## Reference

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# 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.

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# 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

and children, workplace, phone number, and professional affiliations. Of course, the list has now been removed. A second recently murdered physicist was also on the list, along with dozens more physicists and professors. The neo-conservative groups affiliated with Iran Watch are the same groups that trumped up the war in Iraq with fallacious and unsubstantiated claims of weapons of mass destruction.

I read the Israeli press every day. It is no secret that the Israeli government wants Iran crippled like Iraq. That, though, would be a historic blunder, far worse than that of Iraq.

The Jewish community of some 30 000-plus in Iran is proud, safe, and one of the oldest on the planet. Iranian Jews have refused \$10 000 bribes to move to Israel. The synagogues in Tehran are lively and full, and Iran has more ancient Jewish monuments and sites than Israel does.

I fully support President Obama on his courageous initiatives in the Middle East. Those do not include promoting national hatreds or multi-trillion-dollar wars.

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# Siphon uses atmospheric pressure

In the news item "Physicist Uncovers Dictionary Error" (PHYSICS TODAY, August 2010, page 28), Stephen Hughes takes exception to the older Oxford English Dictionary definition of a siphon as "a pipe ... bent so that one leg is longer than the other, and used for drawing off liquids by means of atmospheric pressure, which forces the liquid up the shorter leg and over the bend in the pipe." However, I think that definition is the more accurate. The effect of gravity is implied in the mention of atmospheric pressure, which would not exist without gravity. On the other hand, to state that the siphon is driven by the weight of the liquid in the longer leg assumes that the negative pressure can always draw the liquid over the top. That is a common misconception, similar to thinking that you draw water up a straw by removing air from above the liquid. In reality, atmospheric pressure is responsible. It leads to a force at the base of the straw that pushes liquid up into the straw. The point is proven by the fact that you cannot draw water up

through a straw higher than about 30 feet. Likewise a siphon would not be able to draw water over a 30-foot hill. The water in the longer leg would instead separate from the water in the shorter leg, leaving a vacuum at the top, and the siphon would not work. Let's be careful before jumping on the bandwagon of revisionists.

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