

# Chemical Literacy News



## ARTS & LEISURE



NATIONAL  
ENDOWMENT  
FOR THE ARTS

A great nation  
deserves great art.

### Contributions continue to pour in for this month's haiku contest

The top picks for this week includes a tie between two community locals and, as always, the anonymous Mr. Voltaic. Remember to vote for your favorites at our website. This month's winner will receive a five hundred dollar higher education bond.

Molecular angst  
is caused by torsional strain  
rotate sigma bond

70 eV  
ionization achieved  
fragmentation next

Inducing dipole  
electrophilicity,  
What pi wants, pi gets

Miguel Wolfgang Smith



Acids and bases  
donate and accept protons?  
Yes! respectively.

Benzene, I hate you  
You possess all I long for  
So aromatic

Oh lovely pi bond!  
I am the electrophile  
Come and capture me.

Franka Gallo-Liu

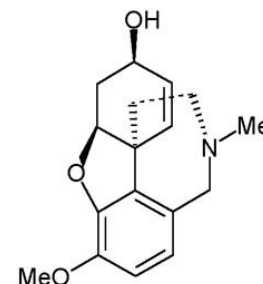
Chem, physics, bio  
Which truly explains the world  
(E) All the above

Mr. Voltaic



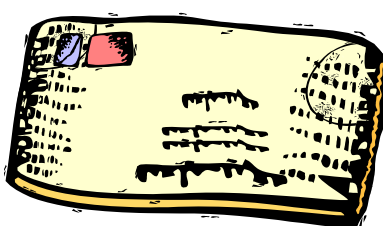
*Voltaic* refers to a chemical system that spontaneously produces an electric current

### Film Reviews Amplified



### What exactly was in that briefcase?

While this cinematic adventure became very personal for those who watched it since it delves into the phenomena that the way we dream is not necessarily unique. Ideas about dreaming presented in this film connected with large groups of people who could identify with it, yet may never had had the words to describe it. The question is how does one induce such vivid dreams? While this movie is taking place the sleep agents have chemicals pumped into their bodies in order to getting the action going, so to speak. Research shows that a drug called Galantamine, which is used to treat the symptoms of Alzheimer's disease, has an appropriate side effect that causes lucid dreams and out-of-body experiences. The chemical itself comes from the extract of a common flower in the Northern Hemisphere. It is an alkaloid which has been a common for centuries due to their psychoactive effects and enhancement of the nervous system. Galantamine could have been used along with a sedative to put Joseph Gordon-Levitt into a deep and productive sleep state. Two characteristics about this drug and its portrayal in the in film are that it is well absorbed by the body so can react quickly and that it has a half-life of seven hours so it decays very rapidly. The case itself could have acted as a protective barrier from electromagnetic radiation and heat that would speed up the decay of the drug while an instrument used to distribute the solution into the body could easily fit inside that it. Of course nothing is certain until it is put to the test, right scientists?



## LETTER TO THE EDITOR

### Literacy Definition

Recently I was asked to elaborate on the concepts needed to be chemically literate. Immediately I thought, "I don't understand the question..." I am sure that I will hear that statement often over the years teaching high school chemistry. Most peoples' understanding of literacy stems from the word *illiterate* -- having little to no education with the written language. In the academic world the ability to read and write does necessarily mean one is literate in any given topic because it is only true if one can walk-the-walk and talk-the-talk.

If you consider students of chemistry, you should assume that they have the ability to read and write as a prerequisite. Though this skill will help to guide them through units of science education, much meaning must be made of symbols, mathematical equations, foreign languages, and coded words.

The language of chemistry is founded on concepts which span over many ages and have produced a language all its own as generations have carried these ideas through text and spoken word. The term *atom* is from the Greek word meaning *unable to split*. *Atomos* become the idea of a building block in science, the atom. Every chemical elemental symbol is derived from a concept in a different language or a person who spoke many languages; A lot of chemistry is like solving a puzzle and make you have to use of the knowledge you have in order to understand deeper meanings. This section of the newspaper is like a puzzle to anyone that does not understand the language of science as you must be well acquainted with various concepts of science in order to assess any meaning.

Respectfully,  
JRP

### Photo of the Week

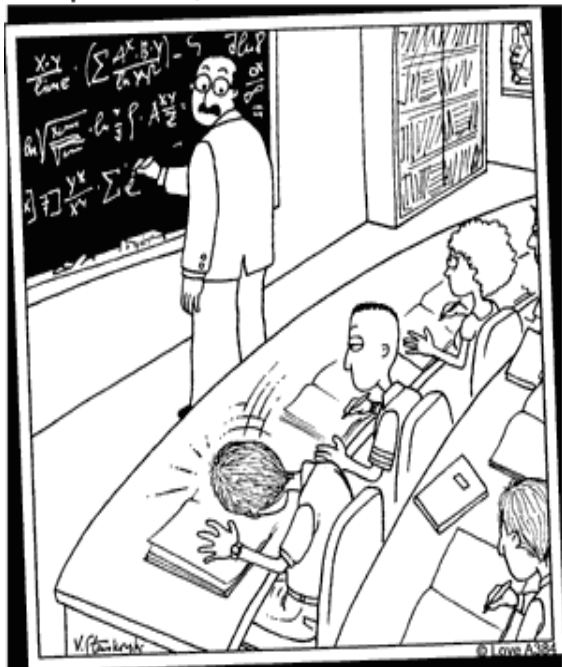
This photograph shows a candle flame burning in microgravity. The flame expands outward and produces very little soot.

NASA Marshall Space Flight  
Center



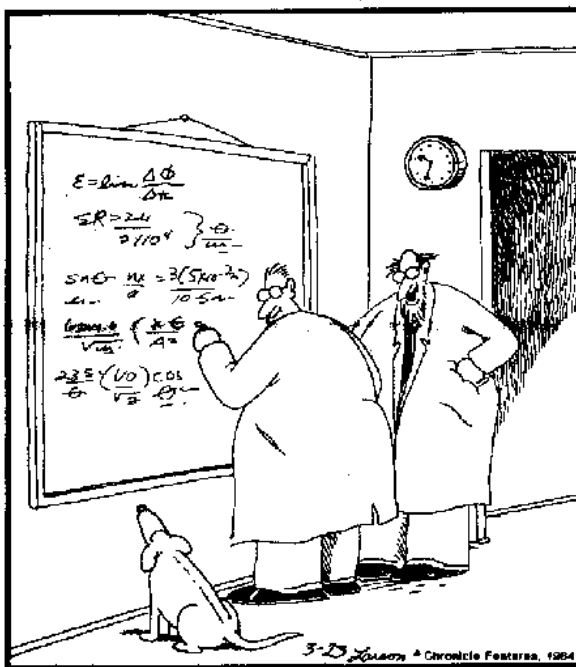
# Word Play Space

Snapshots at [jasonlove.com](http://jasonlove.com)

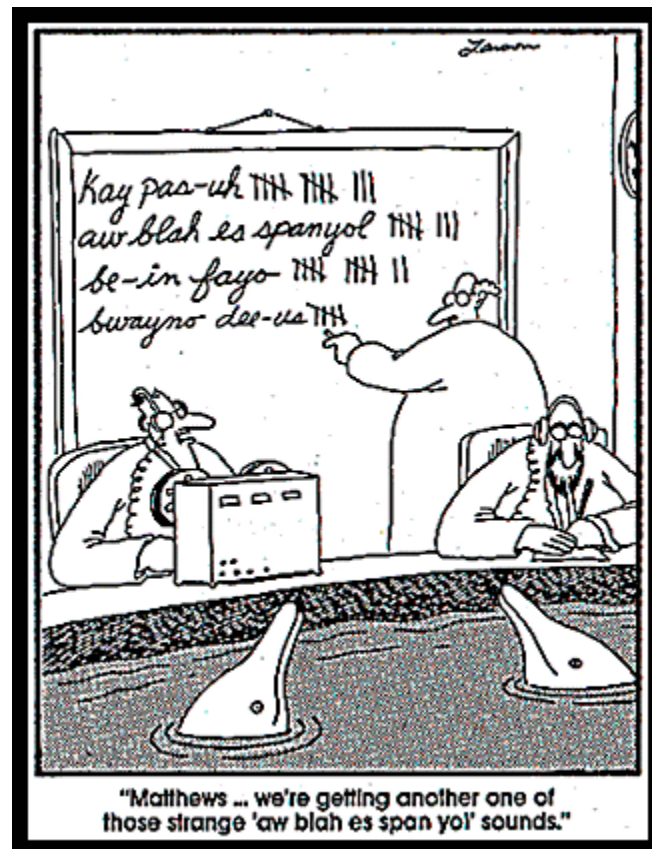


Professor Herman stopped when he heard that unmistakable thud – another brain had imploded.

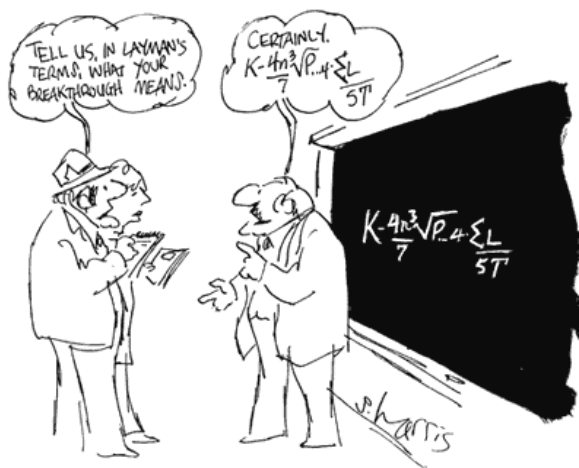
**THE FAR SIDE** By GARY LARSON



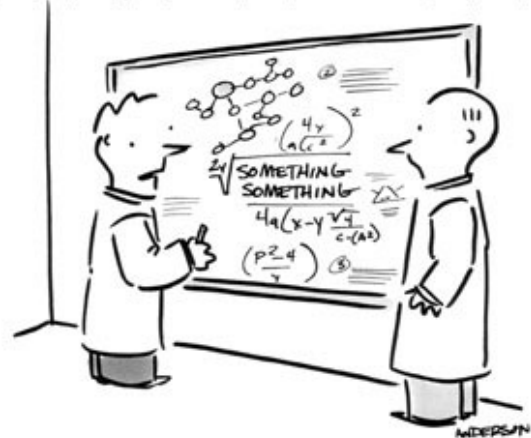
"Ohhhhhhh . . . Look at that, Schuster . . . Dogs are so cute when they try to comprehend quantum mechanics."



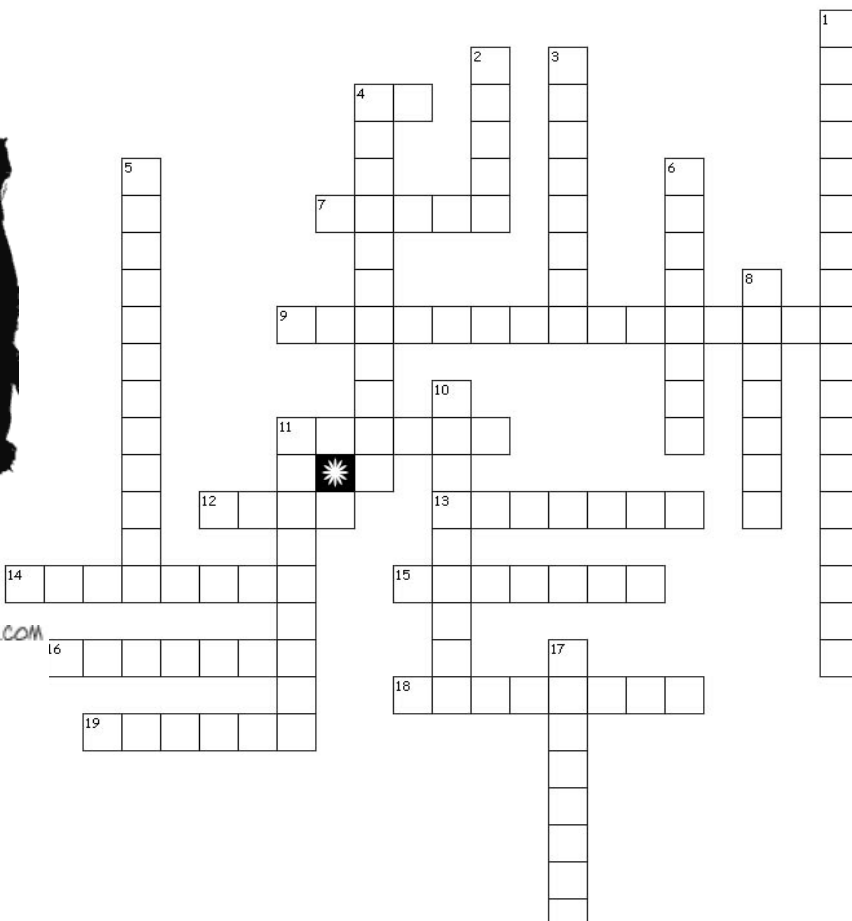
"Matthews . . . we're getting another one of those strange 'aw blah es span yoi' sounds."



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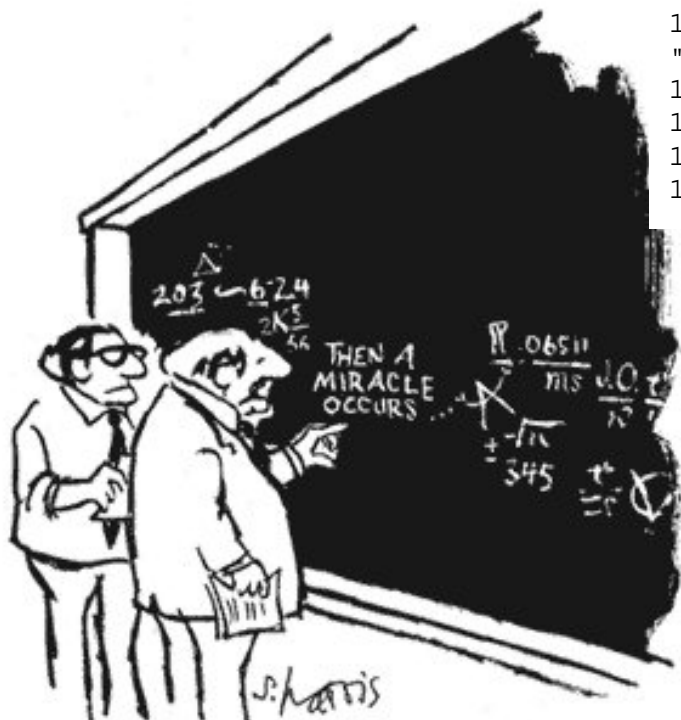


"It's an inexact science."



- Down
- molecules that naturally exist as pairs of the same atoms
  - the simplest hydrocarbon ring
  - the point at which all molecular movement ceases
  - T.N.T.
  - in molecules, reflective yet different
  - IUPAC name for water
  - this scientist number which represents the number of atoms in one mole
  - from the French standard weight of 1 cubic cm water times the Greek "chilioi"
  - 1897 translation of the Germanic "molecule" used as a standard unit of amount
  - a metal from the Latin

- Across
- molecular orbital or bond which is pictorialized as having a crust and a gooey center
  - molecular orbital or bonds with head to head overlap in geometry
  - T.N.T.
  - Greek myth until 1902, it was hypothesized that the Earth moves through a "medium" of this which carries light
  - 1897 translation of the Germanic "molecule" used as a standard unit
  - type of chemistry associated with carbon based molecules
  - from the French standard weight of 1 cubic cm water times the Greek "chilioi"
  - the outer most electrons of atoms used in bonding
  - noble gas and home of The Man of Steel
  - not the first or second, but third carbon atom
  - Latin for iron



"I THINK YOU SHOULD BE MORE EXPLICIT HERE IN STEP TWO."



"All he thinks about is that stupid ball."