Elemental haiku

Author Mary Soon Lee (marysoonlee@gmail.com) provides this review of the periodic table composed of 119 science haiku, one for each element plus a closing haiku for element 119 (not yet synthesized). The haiku encompass astronomy, biology, chemistry, history, physics, and a bit of whimsical flair. For an interactive periodic table displaying each haiku, go to http://vis.sciencemag.org/chemhaiku. Share these poems and add your own on Twitter with hashtag #ChemHaiku.

Hydrogen, H
Your single proton fundamental, essential.
Water. Life. Star fuel.

Neon, Ne
There’s no shame in it.
Advertising pays the bills.
Stop looking so red.

Sodium, Na
Racing to trigger every kiss, every kind act;
behind every thought.

Magnesium, Mg
Child of aging stars, however brightly you burn
they will not return.

Aluminum/Aluminium, Al
Spent kindergarten endlessly writing your name.
One i or two i’s?

Silicon, Si
Locked in rock and sand,
age upon age awaiting the digital dawn.

Phosphorus, P
Don’t hide behind a smoke screen.
How many killed? Maimed?

Sulfur/Sulphur, S
Disrupted first grade, popping stink bombs, starting fires.
Still can’t spell your name.

Chlorine, Cl
Low road or high road?
World War I. Gas in trenches.
Or salt shared, tears shed.

Argon, Ar
They named you lazy,
but it takes strength to resist.
To stand by. To shield.

Potassium, K
Leftmost seat, fourth row,
yearning for the halogens on the other side.

Neon, Ne
Your single proton fundamental, essential.
Water. Life. Star fuel.

Helium, He
Begin universe.
Wait three minutes to enter.
Stay cool. Don’t react.

Lithium, Li
Lighter than water, empower my phone, my car.
Banish depression.

Beryllium, Be
Heart of emerald, your sweetness a toxic trap;
X-rays see through it.

Boron, B
Just doing your job, holding plant cells together.
No fireworks, no fuss.

Carbon, C
Show-stealing diva, throw yourself at anyone, decked out in diamonds.

Nitrogen, N
Forever cycling from air, to soil, roots, crops, us.
Exercise addict.

Oxygen, O
Most of me is you.
I strive for independence, fail with every breath.

Fluorine, F
Tantrums? Explosions?
First step: admit the problem. Electron envy.

Calcium, Ca
The horse’s gallop, the eagle’s swiftness both framed by your quiet strength.

Scandium, Sc
How to define you?
Transition metal? Yes? No?
Do labels matter?

Titanium, Ti
Aerospace stalwart, is the stratosphere enough? Or only the stars?

Vanadium, V
Blush with excitement: lilac, green, blue, and yellow, shedding electrons.

Chromium, Cr
Fighting corrosion, gallant protector of steel, ready for dragons.

Manganese, Mn
Avoid confusion.
In place of your own name, write “NOT magnesium.”

Iron, Fe
Anvil, axe, nail, plow, engine, railway, factory.
Servant, friend, partner.

Cobalt, Co
Traded from Persia,
a blue more precious than gold, for a Chinese vase.

Nickel, Ni
Forged in fusion’s fire, flung out from supernovae.
Demoted to coins.

Copper, Cu
Before the Bronze Age, before history began,
bent to the smith’s need.

Zinc, Zn
Clasp your neighbor tight.
Sound the music while you dance, trumpet, bugle, horn.

Gallium, Ga
Melting in my hand, agent in nuclear bombs, feigning innocence.

Germanium, Ge
Do you miss it still, the semiconductor crown that silicon stole?
Arsenic, As
Hauled in for questions, blacklisted, cannot quite shake your poisonous past.

Selenium, Se
So proud to be part of each drop of formula, helping babies thrive.

Bromine, Br
The shame of your name now lost except to the Greeks. No need to still fume.

Krypton, Kr
For twenty-three years nobly accepted the quest to measure meters.

Rubidium, Rb
Temperamental. Even water starts the flames. Bunsen’s fiery child.

Strontium, Sr
Deadly bone seeker released by Fukushima; your sweet days long gone.

Yttrium, Y
That is not a name. That is a spelling error. Or a Scrabble bluff.

Zirconium, Zr
Cosmopolitan, as at ease in lunar rocks as in S-type stars.

Niobium, Nb
Are you still pining for the name Columbium, its lost poetry?

Molybdenum, Mo
Mistaken for lead—such injustice! Not deadly, but vital for life.

Technetium, Tc
Unstable, short-lived, yet found within red giants; birthed in their bellies.

Ruthenium, Ru
Just below iron, letting him hog the spotlight, oh noble metal.

Rhodium, Rh
Battling pollution by transforming exhaust gas, catalyst for change.

Palladium, Pd
How much hydrogen must you swallow up to please cold fusion dreamers?

Silver, Ag
Treacherous treasure, avarice tarnishing us, photos claiming souls.

Cadmium, Cd
Defined the angstrom until krypton ousted you. Now looking for work.

Indium, In
Cadmium’s daughter by way of neutron capture; adrift in stardust.

Tellurium, Te
So rare here on Earth, because you fled into space. Sighted by Hubble.

Iodine, I
A fortunate fluke: found fuming from French seaweed, sublime purple gas.

Xenon, Xe

Caesium, Cs
Hot-headed firebrand whose violent behavior hides a softer side.

Barium, Ba
Let those enduring your enemas remember firewalls’ green splendor.

Lanthanum, La
Down in the cheap seats underneath the main table, leading your namesakes.

Cerium, Ce
More common than lead, and yet an ardent member of the rare earth club.

Praseodymium, Pr

Neodymium, Nd
Delved from China’s mines, mixed with iron and boron. Strong magnets, high costs.

Promethium, Pm
Instability, radioactivity; lanthanide bad boy.

Samarium, Sm
Bone deep, such kindness; curtailing cancerous cells, easing others’ pain.

Europium, Eu
Defending euros, contained in every banknote, glowing in UV.

Gadolinium, Gd
Within reactors, your appetite for neutrons can be bothersome.

Thulium, Tm
Fifteen thousand steps to gain the first pure sample. Extreme chemistry.

Ytterbium, Yb
Stable to within two parts in a quintillion: Atomic clock ticks.

Lutetium, Lu
Helicopter dad, keeping your electrons close to your nucleus.

Hafnium, Hf
Yield the holy grail: induced gamma emission. Let the price be low.

Tantalum, Ta
Smaller and lighter, your tiny capacitors, digital darlings.

Tungsten, W
Illuminated the twentieth century, glowing with such pride.

Rhenium, Re
1925. Found: new element. Stable. The last to be caught.

Osmium, Os
Humiliated underneath the dunce’s cap, densest in the class.

Iridium, Ir
The dinosaurs gone: your fingerprint in the clay. Incriminating.

Platinum, Pt
In a basement vault, nestled within three bell jars, the measure of mass.

Erbium, Er
Internet helpmate, improving fiber optics. Rose-tinted data?
Gold, Au
Deep they delved for thee, yet deeper still thy dwelling in the Earth’s dark core.

Mercury, Hg
Madness the price paid for your molten alchemy. Metal. Planet. God.

Thallium, Tl
As a sulfate salt, handy for killing rodents or one’s relatives.

Lead, Pb
Lecherous plumber with an appetite for both acids and bases.

Bismuth, Bi
Given a half-life of ten to the nineteen years, de facto stable.

Polonium, Po
Hidden in pitchblende, gleaned by Marie and Pierre, their radiant child.

Astatine, At
Naturally scarce. Less than an ounce to be had in the whole Earth’s crust.

Radon, Rn
Homeowners’ hazard, skulking down in the basement, plotting your decay.

Francium, Fr
Last seat, first column, there maybe twenty minutes before you vanish.

Radium, Ra
Licked by the women painting luminous watches. How much time stolen?

Actinium, Ac
Captain of the boys banished to the bottom bench, troublemakers all.

Thorium, Th
Electrons display relativistic effects in the table’s depths.

Protactinium, Pa
Both of your neighbors proffer nuclear power; you clog reactors.

Uranium, U
Manhattan Project. The elephant in the room, never forgetting.

Neptunium, Np
One small step toward Pioneer and Voyager, space ambassadors.

Plutonium, Pu
Manhattan Project. Climbing the tree of knowledge for forbidden fruit.

Americium, Am
Alpha particles dispatched in smoke detectors to protect and serve.

Curium, Cm
Crew member assigned to spectrometer duty on the Mars Rovers.

Berkelium, Bk
Face the firing squad. Yield exotic elements under bombardment.

Californium, Cf
Freely fissioning, spitting out enough neutrons to start reactors.

Einsteinium, Es
Forged in the furnace of \( E = mc^2 \). Ivy Mike’s baby.

Fermium, Fm
Hydrogen bomb test yields collateral science, fallout bonanza.

Mendelevium, Md
Cyclotron harvest named for the table’s father: seventeen atoms.

Nobelium, No
No prize to award for the decades disputing your discovery.

Lawrencium, Lr
Silvery, we think, guessing, not having seen you with the naked eye.

Rutherfordium, Rf
No known isotope descends to hang around much more than an hour.

Dubnium, Db
A silent soldier in the Transfurium Wars. Whose side were you on?

Flerovium, Fl
Mirage? Mistake? Truth? Would further neutrons lend you a doubled magic?

Moscovium, Mc
First fashioned by us in this new millennium, future uncharted.

Livermorium, Lv
Nearing the end now, the antepenultimate seventh-row inmate.

Tennessine, Ts
Our most recent find, evanescent halogen. New kid on the block.

Oganesson, Og
The end of the line, your millisecond half-life brings down the curtain.

Ununennium, Uue
Will the curtain rise? Will you open the eighth act? Claim the center stage?

Hassium, Hs
Historic hassle, crafting sodium hassate, atom by atom.

Meitnerium, Mt
Merely conjectured, your chemical properties. No data at all.

Darmstadtium, Ds
Nickel ions hurled by the billions of billions to score the first goal.

Roentgenium, Rg
In the group of coins: copper, silver, gold, and you. Untried, worth unknown.

Copernicium, Cn
Electrons arrayed in atomic orbitals as if round a sun.

Nihonium, Nh
A stable island? Might heavier isotopes linger for longer?

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