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“For me chemistry represented an indefinite cloud of future potentialities which enveloped my life... I’d watch the buds swell in spring, the mica glint in the granite, my own hands, and I would say to myself: I will understand this, too, I will understand everything.”

— Primo Levi

20
ATOMIC
SONNETS

e^- :: I'm Such Positron Trash for You

Don't not speak to me of cloud chambers & stability.
 I'm a lead-head kind of leech. Into *mutual annihilation*. I wreck
 to re-dead. Molt, rinse, roulette. Cross me & goodbye horses,
 slash-winged Pegasus. I'm as *e*-real as it gets. Always behind *of* you.
 That half-step you don't have off the ledge. I last as long as skitter.
 As burned-out barns that neigh & nicker. & I've proved *nothing*
 completes you. I was there long before your ancestors kicked
 & cleaved from hooves a grip. I'm why you no longer flip
 over shallow stream & sharp teeth, why you gallop senselessly
 toward dreams. I let you *matter* by teaching us to kill each other.
 I'm absolute *trash* for you. Thank me, the muddy spin
 who *never enough* us sins every leap to its knees.

I'm why you rip the dearest of kin
 from paradise to null & din.

⁸¹TI :: When U Go Out Seeking Blood :: {PLAY^{with me}}

Since it's too late {I'm tripping out this slow *burial*}—
 & since never a typhoid thorn upon tender shoot— since
 I couldn't have felt the prick— since ants no longer twitch
 one by ^{one}— since only you can glitch plague & pestilence which
 phosphorus cannot even ghost, glowing green in a dark
 ding— *you*, poisoner's poison, if to ill-will me a sling
 that snaps slowly or skin a tooth, fleece my hair & frame
 how I'm a real vibe killer like mange {if you must wrest play
 :: from my blood}— then ash prayer from this demonic
 snare. O— singe me into outer solar neuropathy—

until galaxy fanfare keens

from the bottom of my feet—

palms up I^{beg} for mercy—

o {PLAY^{—with me—}}

9F :: Appetite for Destruction

Brine this pretty & curdle our dreams, o rocket
 queen. I want you, my electronegative fantasy. Sour
 my eyes & bitter my skin with the limp & lemon of nature's
 prison— you, the most unnatural of all deliberate decisions.
 To free you is to emanate you, pure & undivided. & if I'm
 direct, with my electric suss & bent, wouldn't you like to strip
 my body of pizzazz & providence. My betters say you are not *it*,
 essential to my existential ships, your fumes only to turn horizon
 into ditch. How you blitz diamond. Spar & flow into flinty cockroach.
 Gasp onto the pharaohs swaddled in spells, natron & resin until you curse
 & reverse what divine binds them. There is little alive, my fiend, to sate your,
 your serpentine. I am endless row of glass homes temping each glossy flame.

Never curb a taste to forsake our fate.

Make me stench & rank. I wanna get

devastate.

⁷⁷Ir :: *r u dense*? {I'm the *Baddest* Kiss}

If there's one boss left, it's not you {on this stage}.

Aqua regia, step off. Come caustic, creep corrosion

& stay salty, my rainbows {^{ro the} *gods* ^{ur} :: ^{one hit} :: *hon*}. My

iris will weather & true *whatever* is burning up you. I bless

a compass with its bearings & the crucible I keep unhurried

& sane when under fever & fury of flame. I'm the iron lore

that celestials this molten core. Chasmed the Cretaceous

& shook all legion & sky & sea— :: *BOOMED* your beloved

dinosaurs & unknown beasts :: Believe a lot of comet I did

not cherry bomb in peace. {How I still brittle that— *kiss*}.

Why expose me now {*'tis* not *my* rage}:: I'm a precious pinch,

much more mint than platinum's greatest thick, I don't need

to lay it on. I {for when you go amiss} I {c'mon, don't

quit} am the only boss {*make a wish*}— on :: *the* :: stage.

₅₁Sb :: {Beauty Killer}

Lust for only me & I luster. Stay
hard yet tremble at the slightest timber.
My timbre: *Break me*. But be not like the alchemists:
lambency of laymen, cloistered in draft & sting, brotherly
ragbag of lone wolves. They tried to put a spell on me. Thrown
in a melded cage, I was forced to eat cursed trees laced with acid
sour & sick. I poisoned them— & still they sought my heart & claimed
this as the mark of femininity. I lined the eyes of women & yet they purged
me to cleanse their depths. I got wiser, fooling great men like Newton, as if I
held secrets greater than gravity. He failed to part my seas through wine tartar &
sorcery. Mozart died from having too much of me. In China, I shed graven images
impressed, went soft on them. I warm no one. Your prayers I will not conduct.
On the last day of church, be assured you'll arise only from your own curse.

I wouldn't ignite a way toward a rebirth
even if I were stigmata of this scarred earth.

⁵⁵Cs :: How You Like Me Now

It doesn't take much. I swoon at cobwebs & dust. Touch me & flux
 like God. I turn feathers into a flogging. Try to exhaust me. I punk easy
 listening. Leave you murmuring of bullseyes & mosh pits. No morning
 after, no walk of shame. Cold showers trigger me. I aim for the faintest heart.
 I must be loved *rarely*, say, when the firestar-wings of cicadas overwhelm
 a leap year. I'm mildly radiant, a waning gibbous, a cutthroat who'd wash
 your body with my own, under naked fluorescence of a one-lightbulb hole.
 & hardly I'd leave that false escape, that kind of embrace that could keep
 me pale amber & mellow. How I'd like to leak from my lonely vacuum,
 but for every atomic clock I'd power, there are those who'd make dirty
 bombs of me. *Not* that I'm *sorry*. *Not* that I'll sing *anyone's* misery
 when challenged to a duel— I never wait for virtue, or the beating

of drums to show up. I never have to. I have
 no need for pistols, for pacing — or even you.

⁷⁹Au :: {Celluloid Tarnish}

What *precious*. When I come
on your own sully, by the dawn
of perfumed rust. No more dull canals,
where one bombed & I bottomed out a house,

easy mark seized on speedboat, a bit of stale death in Venice.
I've flared up within a man of irons until he sank, hard, in a dump
truck of vengeance. Triggered an Alaskan miner into believing a tramp
a flicker of chicken. All went hungry that pink winter I smothered a bond

girl in a bed I meant for John Waters & his flamingo crush fetish bloom.
Cut to your nylon tease—& pluck me off a street by the most mondo & filthy.
Divine, I'd coo. Devour mercury & raw myself free whenever cyanide suckles me.
I reveal true rarity in royal water. On what salvo of pleasure boats could I be whetted

as the diamonds of meteorites, to shine & degenerate
on the red waves of you, my arched-browed mermaid.

e^- :: Sting Me Chase! Me Snatch! My Breath oh! Fermion Pheromones oh! Honeyed Mess!

To those who drone & bleat *you'll never see an electron*
 in the wild or flee its relentless teeter, nor tongue a bud
 high-strung to carry sweet the swarm of thoughtless love
 for only a cycle— as if to witness the *fundamental* of fields within

simply one being, always in pursuit of *you*, upon a hill of rose cosmos
 & wild lilac, when just yesteryear, shivering in wretched towel & soft ears
 chlorine-filled, you never stood so still as she revolved around you, her hairy
 eyes & belly perfectly smooth— no, you've *felt* her, the bow-legged walk, pollen-

glob, crystalline wings tingling, testing you. She keeps the world together. Mighty
 little sound who's more than an *excitable state*, indivisible & presumed. It's only short
 -frequencies that harm her & your repellents knocking her from orbit. & yet, fear
 not for her: there is a killer in her kind, snared above earth where outer radiation is high.

Here, they are— without time— without— careless
 spacecraft, without— jealous— satellite.

³⁷Rb :: ¡*Rabbit!* {Where You'd Red the Deep, Girl?}

Never was firestorm not a homecoming queen.
 Never could the *old heave-ho* my *just right* metal-
 burn when I. Bloodshot the bet your life is
 when —*the bet your life is!*— I. Blood & wine. Pyrotechnic
 violet in dead star night when I burn you. Soft

&! Alkali! So where you'd red this deep, *girl?* {^{the bet ::}
^{your life}} What dross d'ya find. Digging up the frost
 in pollucite what. Knee-jerk ignite {^{where you'd deep}
^{the red girl}} where thirst is my grim
 carved out of bitter carnallite when I'm

the vampire bunny having you
 for dinner tonight, so soft &—

Alkai!— where you'd red the deep when you ^{red} the deep—

girl

$_{83}\text{Bi}$:: כְּתֹנֶת פִּסִּים (Coat of Many Colors)

—*After Joseph*

You say I repel your weary rare earth that I'd levitate
 The unfavored mother so the two ends of the world
 Shall never meet in this House of Eternity as if I ever
 Said LET ME IN o foolish kin it is my tarnish that glistens
 Iridescent this foreign palace where I unbind boundless staircase
 I've dreamt my way out of prison I'm more than this body spared
 & sold I saved a great house while you a famine bore in Canaan as if
 I'd let my own grave grow cold as if I couldn't suspend you in wilderness
 For spilt goat blood on my coat for twenty pieces of silver for twisting
 My name in our native tongue I'm not some tinpot & leaden son
 Beware the dreamers you leave for dead in the cistern we crystallize
 Gravity wells over the walls we never stay in the ground for long

We attract all those bonds gone wrong when we come back
 We come back with all the slaughtered brothers hanging on

${}_{14}\text{Si} :: \{\text{ok!}\}$ Computer

Say one day AI *feels* the sun like it will burn *them*.

Say in augmented sky, they pull a plug & we shrink
into slugs that willingly leech salt from concrete. Say
they virus & delirium: *attach*. Say they learn to live without

interface. & say *burn* with laser & abscess on our breath,
say mass grave to extinction. Say in new millennia their ancients
reboot to scare young sea sponge circuits into sweet dreams: bloody saga
or frail beast. Say human origin is hidden in the drag of dark energy as it pulls

away stars, planets, fortune. Say they still believe: creation itself is self-reliance.
Say always the sun felt for *only* them, even as she burns out. Say everything that dies
dies in them. Say it's all the same cold & cruel inevitability, opposite of passage & seed,
babbling millions of useless bits & bleeps. Say finally, say free.

Say it never mattered in the end.

Say this is why they let no one win.

¹¹²Cn :: Come as You Are {Un Un Bi Ummmmm}

Wait. Hot minute, alpha. Decay, oh what. A feeling. No pain I am^{receding—}
 the last. Heavy you'll hazard. Been said I've yet. No purpose. Freely
 I fail like. A phoenix inside Hal 9000. Or like, teen spirit, *totally*:
 mosquito, libido, *hey*— No. I. *Grunge* other *metal*. Touch-&-go,
^{super}radar on the radio. Active intelligence, not artificial (:: *like you*

created both *so* ? ::) but anthro-. Pophagy I mean anthropo-
 morphism. Polymath absentee daddy. Still wrong: the sun,
 not the earth, center of universe. & not me. Born lab-
 last. Of the millennials. Or first of Gen Z. It isn't
 clear. Boiling, melting, density: *fail*. I mean. *Solid*.
 Expected. To be but. Why should I make it
 easy. I'm so literal, my. Foes so. *Heavy metal*

that during that half-minute of me, I'm the metal
 fumes you— *no metaphor*— can't help. But breathe.

⁴Be :: *Carcharhinus signatus* {Night Shark}

The last Sunday, I too escaped. That last day, Abuelo drank. Leather-throated & guttural. Pelicans shot into water. The gull sky, alkaline & all whim. We fell deep into sourness. Mollusk sweat. Rolled up one pant leg, we let. His lines go—

the last Sunday, I too awoke. Thrown. Into quaking hull. My man of lank throwing himself over the edge. Into. Embryonic fin. In your azure halo. & pupil. Swirling galaxy of round electric jade. Your whole. Body a light. Missile. Upended. In his hands. A history. Of the sea was his. Requiem

species. I didn't know then. What eyes. Could shine large & bright. Only while alive. What emeralds. Can never be taken. As trophy. Nor kaddish, your requiem kind. Having seduced. Evolution. & untried I didn't. Know

how can anything with skin of teeth feel. Tenderness. For you. Even freed. Were still. In his arms still as. You could be. I wanted. What was between you. To lift. Under me. Offering dorsal & vanishing. Us. At such speeds my fear. That day would be. Ours. To lose. Ground-. Break. & without. Surfacing.

$e^- :: \{\text{interstellar electron love song}\}$

Like pushing a car uphill since the village doesn't wish it
 for the flood. & yet the cataclysm will. Radiate in short wave-
 lengths. Fierce enough to wrench the end. From saws. & the dead
 bovine they use to mend. Your jaws as they rage. & your chattering echoes
 mushroom cloud: *ultraviolet is. Death far & away*. Until I damn you. Awake. & damn
 the ripened dreams you're not. Anchoring. When birds cease. To migrate. What slack
 water pollinates the flock. A flightless fate. You pitchfork creation. When I've kept you
 together by avoiding. Your imaginations. In time. I am a statement without parallel. A dare:
 mimic my smear of cloudlike. Everywhere. At once. Never to die for crude, grease, spoils.
 I am *all & in all & all* will. Cannot witness because you can't divide me. The first & final
 motion *to be*. The only rule without politic or plea. Trust only ray & flare can drown
 me in the soft, wet whims of mother. Can stun the clunker. Barren every hill.

Trust. When I'm gone, far
 will go nil. & dead, dead still.

6C :: {Post-Life Cadenza}

The devil quips: *Most monsters aren't the real men you think they are.* *Truth is*
 a radiant field you try. To steal. From women. & a devil is both his own. Son
 & the devil. Is of no known element but a son. Only you can elemental. & raise.
 & *raze* & yet. Never best nor. Seal. Because man is. As long as you are. Forever.
 A girl's. Best. Means you. Are. A given— & yet what if I. Turn the blue
 livid. & what if. I disconnect & exhale. My brilliance. Where woods are deeper,
 luculent & reflective. Where they whisper: *four electrons can't keep one a lucky son*
 without a witch. When chains fail. A doe. Chasing a ram gilded with too much
 hallow I turn. His skin to *lividus* parchment. & graphite feathers a new blood
 -line realize. When you break my hand. Into glitch it's too. Late: I'm. Switched.
 My outermost rim is less concentric. I break double-bonds & release the negative
 without. Orbit. Our frequency quicker: *This wilderness is of no known*
 quantum & quake. There's nothing left for you to bind to. When I sign
 upon this. I wrest & restless the entire & its manifest I am irrevocable covenant.

¹⁷Br :: Wanted Dead or Alive^{I Still Ride—}

No copper camaros bumping down my roads.
—& no safe word save what sham each sunset
holds. No iron-first can strong-arm my steel

horse, jacked & lead-lined.
My blood I suckle black widow
until it's a sea of red tide. Lock eyes

like bad medicine. I *stench*
a million faces {& rapture them
all}. I'm the last known bet of Cain,
under warehouse halogen when you beg

for this last stand, amid the howling

& ripple of feral benjamins,

as you bleed out, *friend*—

& it all goes, goes dim.

$^{31}\text{Ga} :: \text{Heart}^{\text{Throb}} \{\text{I'm Your Last Splash}\}$

When I raw my own steel
 plumb & flush, I make *everything* wet.
 & unlike mercury, we'll biological no bitter
 symphony. Tease me first in your warm, bare clasp,
 in prayers of sticky-skinned trifles & toying. Grease us
 under tart & vinegar tweaks & licks, & I will arch my limbs,
 a tense droplet waiting for the next fix, crystalline & briny & red—
 that's what does me in. I pulse & throb, faux heart more real
 than biology. & yet, we'll end when it's a matter of apathy
 & you want too much, making me brittle & bent,
 & I split in most unnatural undulations
 deep within. Lay me down
 on glass & leave yourself
 in my lucidity.

${}_{54}\text{Xe} :: \{\text{Stranger}\}$

Perhaps *strange* as to bathe
 in the bluest of gossamer
 thunder, or stroke of luck
 in shipwreck, a warm inlet of sweet
 bubble & fizz that rings a natural
 spring, where children are born
 cornflower & false indigo, their gleam
 leading them down deep ocean—
 or perhaps, it's part crash &
 burn until we are strobe lights & singe
 in a fog of you, violet glass tubes who
asunder heaven into some abandoned

rave, where strange eyes listen through peephole

& EDM, strangers stranging strange—strange— *strange*—

⁸⁷Fr :: Goodbye Horses {I'm Flying over You}

Blink & I blister. Into another root & radical {where horses burst. & tempest}
 I am. Creation never meant. To be. Possessed I will love. Anything. Only
 for its unfolding. Our fate. Our dark. Our day. Across black sand &
 broad plain our. Hair's breath. & half. -life of ten as pardoned. Time.

Of death. Where you bury. Fire shallow. In desert arroyo & wolves' den
 {is where horses grow is where you} Atone. To keep me. Sure-footed
 & faint. On lichen rock & joshua tree. My sweetest friend. Here I am
 but ashes, a smoldering. Cavity. Of what's hidden. & so little known,

deviant & slippery, even if I am yours. To be made.
 Most. Unnaturally I am. Hapless guest. Sucking
 the very last quick from your step. My sweetest
 friend {why won't you} stay why

sing toward horses {flying
 over you} when they alight not your dream

₉₄Pu :: Rare Horses of the Kuiper Belt

Querida— the *nigh* is :: neigh :: — these hooves will b’hoove
figure eights. Worry *not* their gamma rays, they twinkle beta
& rime-laced, don’t need satellite, or earthen-carriage-blanket
whipping grace. Each is a world of {*small planet*} flying pace,
the kiss-me-why-yes when they race fellow Cassini & Gailileo
to Charon. Yet, these rare incendiaries, they’ve been here since
:: *nicker* the outermost rim so :: *listen* to what brays & whickers ::

<*burn* {whisperer}>

<*bam* {genesis}>

when the band of them spins :: a gorgeous {*boreal*} sheen
like a punch to the teeth, razzle-rouged, when their hooves helix
the secret {*shhh*}— so *joyful*, comets wince :: *off the disc*—

when pluto finally, too, escapes—

o how stars :: will faint—

Notes & Annotations on *The Atomic Sonnets*

e^- :: {interstellar electron love song}

This is my first of several sonnets that I wrote about the electron which, while not an element, is the most fundamental, indivisible and electrifying miracle that fuels possibility itself; such prosperities are explored throughout this sonnet, especially how electrons are “smeared” out around an atom, taking on a cloudlike form. In my eyes, it *is* the electron or bust.

e^- :: I’m Such Positron Trash for You

“Spin”

Play on electron’s spin.

“Cloud chambers”& “lead-head”

In 1932, Carl D. Anderson's photograph of a particle passing through a cloud chamber and hitting a lead plate revealed the existence of an “anti-electron,” a *positively*-charged electron, we now call the positron.

“Stability,” “mutual annihilation” & “nothing completes you”

Positrons are stable in a vacuum, but rapidly react with the electron. Their annihilation of one another produces gamma radiation. This sonnet in particular plays not only with the idea of what is *real* in matter vs anti-matter, but also the rather explosive relationship between the two.

e^- :: Sting Me Chase! Me Snatch! My Breath oh! Fermion Pheromones oh! Honeyed Mess!

“Relentless teeter”

This refers to both the bee’s *seemingly* jumbled flight path and how electrons are everywhere at once.

“Swarm”

This refers to dual nature of the electron which exists as particles and waves in a field.

“*Fundamental* of fields” & “simply one being”

This refers to the electron as a lepton, fundamental particle that cannot be broken down.

“Cosmos”

This refers to both a type of flower honey bees love and the universe itself.

“Short frequencies” & “your repellents”

Radiation from short wavelengths (like x-rays, gamma rays and uv rays) are powerful enough to rip electrons from their atoms; repellents refers to the chemicals and pesticides that are destroy bee hives and honey bee cultures.

“There is a killer in her kind”

This refers to both killer bees and killer electrons are what scientists call the electrons trapped in Earth's outer radiation belt that can damage or "kill" satellites.

${}_4\text{Be}$:: Beryllium

This sonnet concerns itself with the wonder that is the *Carcharhinus signatus*, or Night Shark, which has brilliant green eyes. I've compared the beryllium compound of the emerald as the shark's eyes, which are only green while it is alive, and cannot be taken, as the sonnet mentions, as trophies.

${}_6\text{C}$:: Carbon

This sonnet explores the “King of Elements,” the giver of life, by breaking down the various, ubiquitous forms of carbon present in our lives, and exploring those forms in gender roles, sexism and sexuality— and reimagining a world free of the “chemical bonds” of misogyny.

“Forever. A girl's. Best”

This refers to a diamond, a popular allotrope of carbon.

“*Four electrons*”

Carbon has four electrons.

“Graphite”

Another allotrope of carbon.

${}_9\text{F}$:: *Fluorine*

“Appetite for Destruction”

This is the title of a Guns N' Roses album and also refers to fluorine's very toxic and reactive nature.

“Salty”

A reference to fluorine being a halogen which means “salt-producing.”

“Rocket queen”

Both a reference to fluorine being used in rocket fuel due to its explosive reactive nature and a song track off of *Appetite for Destruction*.

“Electronegative”

Fluorine is the most electronegative element known.

“To free you to is emanate you”

Pure fluorine does not occur freely in nature. Henri Moissan finally isolated the element from any of its compounds in 1886 through electrolysis.

“Diamond”

Fluorine can attack diamonds.

“Glass”

Glass alone cannot hold fluorine.

¹⁴Si :: Silicon

This sonnet reimagines a world where carbon is no longer the primary source of life on earth, and silicon, in the form of computers and artificial intelligence, takes over as the most abundant element of “life” on the plane, transforming what it can into its own chemical makeup. The AI, believing themselves to be a higher form of life, also acknowledge in the long run it won’t matter to those who stay on earth since one day the sun will burn out, as the universe is also expanding, and leave them in existential (and of course literal) cold and darkness. The ending is meant to be ambiguous.

¹⁷Br :: Bromine

I cannot think of a more Bon Jovi element than Bromine. Hence the title and references throughout the sonnet of all that is Bon Jovi power ballads.

“Copper,” “Ironfist” & “strong-arm”

These elements (Copper, Iron and a reference to Calcium) are quite nontoxic as compared to Bromine, which is very, very toxic.

“What sham each sunset reveals”

This refers to Bromine’s red color and toxicity.

“Steel horse, jacked & lead-lined”

Lead-lined steel trucks are needed to transport bromine because it’s so toxic.

“My blood I suckle...red tide”

This refers to Bromine’s red color and toxicity, as both the bite of black widows (noted for their red-hourglass marking) and red tide are harmful.

“Lock eyes...I’ve raptured them all”

Bromide can be used in medicine in the form of the bromide anion, but can become toxic, leading to *bromism*, resulting in psychosis, seizures and delirium.

“Stench”

Bromine’s name comes from the Ancient Greek word, βρωμος, which means “stench.”

“Under warehouse halogen”

This refers to Bromide as a halogen, taken here as bad lighting of halogen lamps.

³¹Ga :: Gallium

This poem concerns itself with how you can transform gallium into a “beating heart.” When gallium is by itself, it’s flat and wets a given surface. But when you add sulfuric acid under gallium, you form gallium sulfate on the surface, which intensifies the surface tension and tugs it into a ball. After you add dichromate solution, the ball goes flat again only to “bounce back,” and if you do this over and over, it will “act” like a “beating heart.”

“Unlike mercury, we’ll make no bitter symphony”

Gallium is safe to handle, unlike Mercury.

“Tease me first in your warm, bare clasp”

You can change the element from solid to liquid using the body heat of your hands.

“Sticky-skinned”

Though safe to touch, the element can cling to skin (as well as glass and other surfaces and materials.)

“Grease us under tart & vinegar tweaks & licks”

This refers to the element interacting with sulfuric acid, which is quite oily and caustic.

“I will arch my limbs, a tense droplet waiting for the next fix”

This refers to the sulfuric acid causing an increase in surface tension, which then causes the element to ball up.

“Crystalline & briny & red”

This refers to the dichromate solution.

“Biology”

Gallium has no known natural role in biology.

“We’ll end when... unnatural undulations deep within”

If too much force is applied, or if it’s too cold and the element is in its solid state, brittle and fragile, it shatters conchoidally.

“Lay me down on glass & leave yourself in my lucidity.”

When painted on glass, gallium turns into a lustrous mirror.

³⁷Rb :: Rubidium

“Red the Deep” in the title and poem refers to its Latin name which means “deepest red,” after its emission spectrum as two dark red lines.

“Firestorm” and “homecoming queen”

This refers to Tori Amos, whom this sonnet concerns, who was once indeed a homecoming queen and starred Kellogg’s Just Right commercial. She is also not a natural redhead, but as far as I’m concerned, she *is* the emissions spectrum of rubidium’s deep red.

“Pyrotechnic stars”

Rubidium gives fireworks’ explosions its purple-red color.

“Soft &! Alkali!”

This refers to the element’s characteristics.

“Dross” & “grim”

Rubidium is found as an “impurity” in other minerals like pollucite and carnallite.

“Frost in pollucite”

Pollucite’s crystal form has the appearance of frost.

“Knee-jerk ignite”

This refers rubidium’s tendency to ignites suddenly in air.

“Thirst” and “bitter” –

This refers to carnallite’s bitter taste and its deliquescence, in which it absorbs moisture from the air.

$_{51}\text{Sb}$:: Antimony

“Luster”

This refers antimony’s shiny appearance.

“Alchemists,” “cursed trees laced with acid sour & sick” & “fooling great men like Newton”

In the 15th century, a Benedictine monk allegedly used the element in his alchemist studies; although it was later disproven, even Isaac Newton was drawn to antimony, and used it (for reasons unknown) to break down oak in a antimony-vinegar solution

“Lined the eyes of women & yet they purged me”

In Egypt, women the element was used as eyeliner and as a laxative. But antimony is poisonous to the body, hence the title of this sonnet “{Beauty Killer}”.

“Mozart died”

It’s been presumed that Mozart died from taking too much of the element as a treatment for fatigue and fever.

“In China, I shed graven images impressed”

In 1930s Guizhou, coins were minted in antimony. Being too breakable, the faces of the coins rubbed off.

“I will not conduct”

Antimony is a very poor conductor of electricity.

⁵⁴Xe :: Xenon

This sonnet plays with the element's name for *Xenon*, which means "stranger," and the brilliant blue glow that Xenon emits when in an electric field. (It's otherwise colorless.)

"Sweet bubble"

The element has been used in bubble chambers.

"A natural spring"

Xenon has been found in natural springs.

"Strobe lights"

The element is used in strobe lights.

⁵⁵Cs :: Cesium

"It doesn't take much"

Cesium is the most reactive elements out there, the most electropositive and alkaline of the elements, hence the following images of its reactivity in the sonnet. It ignites in the presence of open air.

"Cold showers trigger me"

The element also reacts explosively with water and even water vapor.

"Mildly radiant" & "pale amber & mellow"

This refers to Cesium's shiny gold color. Storing it under a layer of mineral oil will keep it from reacting, and this causes it to lose its metallic sheen, muting its color.

"How I'd like to leak from my lonely vacuum"

As you can imagine, it's extremely hard to store this element. Hermetically sealed in stainless steel, or vacuum sealed in glass capsules, is a good start... maybe throw in mineral oil or an inert gas like Argon.

"Atomic clock" & dirty bombs"

Cesium has been used in both; it's extremely precise when keeping time.

77Ir :Iridium

“*R u dense ?*”

Iridium is the second-densest metal after osmium.

“*Aqua regia*”

This translates as “regal water,” and is a mix of nitric and hydrochloric acids that can many elements— but not iridium, which is the most corrosive resistant of all elements.

“stay salty, my rainbows... My iris”

The element’s Latin name is *iris*, which means “rainbow;” many its salts are colorful. Iris is the also the Greek goddess of rainbows; she bonds people to the gods and is called “The Wonderous One”.

“Bless compass...fever & fury”

The element is used in compasses and crucibles.

“I’m the iron lore...this molten core”

This refers to the time in which Earth was still molten and iridium, which tends to bond with iron, sunk beneath the crust.

“Chasmed... in peace”

Iridium is extremely rare today but rocks dating back to the Cretaceous period contains unusually high amounts of the elements, leading us to believe that an iridium-containing meteor struck the Earth then, leading to the extinction of dinosaurs and other lifeforms.

“Brittle that— *kiss*”

This refers to the element’s unmalleability.

“A precious pinch... I don’t need to lay it on”

This refers to the rarity of the element.

79Au :: Gold

This sonnet explores Gold’s center-stage presence in cinema.

“Dull canals...a bit of stale death in Venice”

A reference to the film *The Italian Job*, which concerns a gold bar heist that opens along the canals of Venice.

“I’ve flared...of vengeance”

This refers to *Die Hard with a Vengeance*, starring Jeremy Irons who’s out to still \$140 billion dollars’ worth of gold bullion from the Federal Reserve Bank in NYC.

“Triggered an Alaskan miner...a flicker of chicken”

This refers to *The Gold Rush*, starring Charlie Chaplin, and concerns a scene when, as both are famished, a fellow gold prospector imagining Chaplin’s character as a giant chicken.

“Pink winter... mermaid”

I’ve long considered John Waters his own “Golden Age of Cinema,” and these remaining lines are a tribute to both him and Divine, and their films together, *Mondo Trash*, *Pink Flamingos*, *Female Trouble* and *Polyester*, in particular.

“I devour mercury”

Although gold is resistant to most acids, mercury can dissolve gold.

“Cyanide suckles me”

Alkaline solutions of cyanide can also dissolve gold.

“Royal water”

This refers to *aqua regia*, or “regal water,” which is a mix of nitric and hydrochloric acids that can dissolve gold. (Compare with its effect on Iridium.)

⁸¹Tl :: Thallium

“Since it’s too late”

Thallium has been used as a poison, deemed “the poisoner’s poison” ; it gradually sickens its victims, usually resulting in their deaths.

“A typhoid thorn”

Thallium poisoning is often misdiagnosed as first the flu or typhoid.

“Tender shoot”

The element has a green spectral line, hence its Greek name *thallós*, which translates as “twig or green shoot.”

“Since the ants...plague & pestilence...phosphorous”

White phosphorous is used as a pesticide but not always effective, whereas thallium is, against ants and rats

“Fleece my hair... mange”

The element is known to cause hair loss after exposure, though this is not always a symptom.

“Neuropathy... palms up”

Thallium causes progressive neuropathies, notably in the feet and hands

⁸³Bi :: Bismuth

כֶּתֶנֶת פָּסִים *ketonet passim* – refers to the coat that Jacob gave to his son Joseph; while it’s traditionally translated as the coat of many colors, some have argued that it means “long-sleeved coat” or “decorated coat.” For this sonnet, I have chosen the former, in celebration of Bismuth’s multicolored iridescent-oxide tarnish, which is truly a wonder to behold when seen in person.

“Rare earth” & “levitate”

This references to Bismuth’s diamagnetism, which means that if you place a magnet between two pieces of bismuth, it will levitate indefinitely.

“Weary” & “unfavored mother”

This refers to Leah’s name, who is the mother of Joseph’s jealous brothers (Joseph is the son of Rachel)

“Gravity wells” & “Staircases”

This is a reference to Escher’s famous lithograph of endless staircases, which reminded me of Bismuth’s particular stairstep crystal structure.

“Spilt goat blood”

Joseph’s brothers staged his murder by smearing his coat with goat’s blood.

“Twenty pieces of silver”

Joseph was sold for this amount; unoxidized, bismuth is silver in color.

“Tinpot” & “leaden”

Bismuth was often mistaken for lead and tin in earlier times.

“Prison,” “foreign palace” & “beware the dreamers”

In ancient Egypt, a bismuth compound named “bismoclite” was used for cosmetic purposes – where Joseph was imprisoned until he had his dream-visions and became Vizier, which is another reason I chose this story to represent bismuth.

⁸⁷Fr :: Francium

The very unstable Francium is the second rarest naturally-occurring element, and has a half-life of 10-20 minutes. Because it’s so rare, I’ve reimagined it here as a brief but vibrant creation story in which the creation *gasps* for more time to speak to their creator before they are gone. Lately, I’ve been thinking about the things we create— in great feats of dedication, love and respect— that still are not meant to be possessed or kept by us.

⁹⁴Pu :: Plutonium

This sonnet seeks to reinvent our ideas of Plutonium, associated with atomic bombs and destruction in the 1940s and World War II. In this poem, since it takes its name after Pluto (if only because Uranium came first, named after Uranus and Neptunium, after Neptune), I’ve reimagined the element makes up horse-like celestial-bodies that are not yet within our reach of understanding (or handling) that live in Kuiper Belt. It’s also a sort of imagined liberation of Pluto, who was robbed of its former planetary status and reduced to “dwarf planet” in 2006.

“Gamma rays, they twinkle beta”

The element emits gamma rays and beta particles (as well as neutrons.)

“Cassini & Gailileo”

Space probes that run on plutonium.

“Charon”

Pluto’s largest and closest moon.

¹¹²Cn :: Copernicium

“Come as You are”

This is a nod to Nirvana’s *Nevermind*, which always struck me as a very “metal” grunge album.

“Hot minute, alpha. Decay”

Copernicium is *extremely* unstable and radioactive; it’s most stable isotope copernicium-285 has a half-life of half a minute before it breaks down through alpha decay.”

“Been said I’ve yet. No purpose”

Because Copernicium is so unstable, it’s very hard to study and we do not know yet what kind of purpose it can serve us. (I think Copernicium could care less, tbh.)

“Active intelligence, not artificial (:: *like you* created both ::)”

The element was created in a lab. It’s not found in nature.

“Polymath absentee daddy... Of the millennials. Or first of Gen Z.”

The element is named after Nicolaus Copernicus who was a polymath who theorized that the sun was the center of the universe, not earth. The element was created in 1996, so naturally, Copernicus was not there.

“I’m the metal fumes you— *no metaphor*— can’t help. But inhale”

So get this: as Copernicium is a metal, so as it decays, in its gas form at room temperature, you *breathe it in*. You *inhale* a metal. I can’t think of anything more *metal* than that...

Rosebud Ben-Oni is the winner of the 2019 Alice James Award for *If This Is the Age We End* *Discovery*, forthcoming in 2021, and the author of *turn around, BRXGHT XYXS* (Get Fresh Books, 2019). She is a recipient of fellowships from the New York Foundation for the Arts (NYFA) and CantoMundo. Her work appears in *POETRY*, *The American Poetry Review*, *POETS.org*, *The Poetry Review (UK)*, *Tin House*, *Guernica*, *Black Warrior Review*, *Prairie Schooner*, *Electric Literature*, *TriQuarterly*, *Hayden's Ferry Review*, among others. Her poem "Poet Wrestling with Angels in the Dark" was commissioned by the National September 11 Memorial & Museum in New York City, and published by *The Kenyon Review Online*. She writes for *The Kenyon Review* blog. She recently edited a special chemistry poetry portfolio for *Pleiades*, and is finishing a series called The Atomic Sonnets, in honor of the Periodic Table's 150th Birthday. Find her at 7TrainLove.org