

# self-publishing and nuclear secrets

and self-publishing nuclear secrets

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# midnight's simulacra

Gestated for a decade, since 2013-05-23

Collected/wrote material, used maybe 5% of it

Knew I wanted: nuclear stuff, LSD stuff, engineering school, academic bowl

Four things came together in 2023:

- Completed reverse engineering of SILEX
- Learned metabolic engineering/synthetic biology
- Rise of computer-assisted authorship
- Commodified print-on-demand

# publishers are the Old Way

## Advantages of traditional publishers:

- Publisher takes financial risk of mortar stores' sell-or-return
- Marketing (if they choose to market you)
- Advance (probably recoupable)
- Access to editors/designers, strongarming of blurbists
- Totem/talisman

## Disadvantages:

- Lose a chunk of royalties
- Likely lose rights
- Likely lose some control over text
- Have to find a publisher

# [self-]publishing is decadent and depraved

**You are not going to make money. You are not going to make money.**

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**You are (almost certainly) not going to make money.**

Most important thing to do is track expenses.

You will likely save more by properly deducting expenses than you will produce in income (which will be taxed).

# other than that, go for it!

It's easier and cheaper than ever to produce high-quality books.

Which means it's more difficult than ever to stand out.

Purchase your own ISBNs.

Publish with IngramSpark and Amazon KDP

Do not use KDP "Extended distribution" (knocks out IngramSpark)

Likely need a 40%+ discount and sell-or-return to land in mortar stores

You probably want an artist for cover, and an editor. **Pay no one else.**

Don't waste your time talking to "fellow authors." If you ain't grindin', sales ain't climbin'.

# ebooks

Ebooks are not generally page-oriented (big conflict with LaTeX)

Reflowable text means footnotes and inline graphics are dubious

EPUB3: ZIP with XHTML5 + CSS + MathML + SVG + crap

What level of EPUB support on a given device? Who knows?

How complete is support on a given device? Who knows?

You'll want an ebook, so design for that.

# nuclear secrets

The Atomic Energy Act allows privately-generated information to be made Restricted Data.

"All data concerning (1) design, manufacture, or utilization of atomic weapons; (2) the production of special nuclear material; or (3) the use of special nuclear material in the production of energy, but shall not include data declassified or removed from the Restricted Data category pursuant to section 2162 of this title." (1954)

Teller-Ulam "hydrogen bomb secret" published by *The Progressive* in 1979.

Case dropped by government; "born secret" doctrine never tested in court.

See also the Invention Secrecy Act of 1952.

# awwwww hell nah

SUMMARY: This notice announces the Secretary of Energy's decision to classify as Restricted Data certain privately generated information concerning an innovative isotope separation process for enriching uranium. Under 10 CFR 1045.21(c), the Secretary of Energy is required to inform the public whenever the authority to classify privately generated information as Restricted Data is exercised (**LOL**).

SUPPLEMENTARY INFORMATION: An Australian company, Silex Systems, Limited, has been developing the Separation of Isotopes by Laser Excitation (SILEX) process to enrich uranium since 1992. In 1996, USEC, Inc., purchased the rights from Silex Systems, Limited, to evaluate and further develop this process. The privately generated information which the Secretary of Energy has classified as Restricted Data under the Atomic Energy Act of 1954, as amended, pertains to certain elements of the SILEX process.

Issued in Washington, DC on June 19, 2001.

Joseph S. Mahaley,

Acting Director, Office of Security and Emergency Operations.



# information wants to be free

The SILEX method builds atop MLIS (1990s) and aerodynamic separation (1960s)

MLIS:

- laser preferentially excites U235 in UF6
- excited UF6 is lazied to UF5
- UF5 is chemically separated (easy separation, requires UF5 infrastructure)

Aerodynamic:

- UF6 supersonically expands from de Laval nozzle
- Heavier crap goes to the sides
- Mass separation (very poor)

# keep on rockin' in the free world

Pair the two ideas. Float UF<sub>6</sub> with a neutral carrier gas (N or Ar).

Tendency to dimerize (van der Waals bonds).

Preferentially lase U<sup>235</sup>, using the first laser from MLIS.

Excited state easily disrupts dimers: <sup>235</sup>UF<sub>6</sub> vs <sup>238</sup>UF<sub>6</sub>+Ar.

Mass difference is many times that of <sup>235</sup>UF<sub>6</sub> vs <sup>238</sup>UF<sub>6</sub>.

Dimers with <sup>238</sup> go to the sides, bare <sup>235</sup> hex doesn't.

Separation is much more pronounced.

# free your mind

With a sufficiently powerful laser capable of sufficient pulse rate, it is probable that **every 235 is lazied**.

Unlike ultracentrifuges, which are purpose-specific, lasers are used for all manner of things.

Typical ultracentrifuge plant: thousands of stages in cascade.

SILEX: a few stages.

Not economically compelling vis-a-vis established centrifuge enrichment capacity, but potentially very compelling to some dudes in a garage with big dreams.

# secrecy is stupidity

I'm a dumbass computer scientist, but I was able to figure this out.

They said "SILEX is secret," thus I knew SILEX was something worth knowing.

The complicated stuff is all operation of the optics and necessary cooling/power/gas. The physics is undergrad easy stuff.

BTW, if you weren't a felon before, you might be now

# themes

- The traumatic loss of faith and liberating embrace of absurdity
- Engineering school is weird, and engineers are weird people
  - Engineering is addictive!
- Nature has discoverable design patterns
- Society is unprepared for 21st century science
- Step aside, Plato's philosopher king
- "Revolt, freedom, and passion"
  - Entire book can be read as a response to *The Myth of Sisyphus*

# major influences, stylistic and otherwise

- Albert Camus, *The Myth of Sisyphus*
- Robert Anton Wilson, *The Illuminatus! Trilogy*
- James Joyce, everything from *Poems Penny Each* to *Finnegans Wake*
- T. S. Eliot, "The Waste Land"
- William Gibson, *Neuromancer*
- Samuel Delany, *Dhalgren*
- William Burroughs, *Naked Lunch*
- David Foster Wallace, *Infinite Jest*
- Thomas Pynchon, *Gravity's Rainbow*
- William Gaddis, *J R*

# let's read some motherfuckin' book

- I. "Katz pivots" (p. 35)
- II. "In the land of the blind" (p. 78)
- III. "Moosebumps" (p. 366)
- IV. "Langostino" (p. 258)
- V. "Me *akbar*" (God clarifies His stance on 9/11) (p. 444)