Stan Meyer physics - Stanley A Meyer conference 2019 - Max Miller Bremen, OH

Stan Meyer Physics - VIC Circuit Analysis & Electrochemistry

Speaker: Max Miller (Iron D Max), with Mark Sebastian (electrochemist)
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Introduction & Setup

All right, well, I'm glad you guys can make it back today, and we'll get a little bit more in-depth into this. I did the circuitry yesterday, the waveform shape, I guess I should say. We didn't actually go into circuitry. I'm not going to really teach circuitry to people. It's kind of outdated anymore. Like I said, you can put a phone app on your phone and make a frequency generator.

WFC Memo 420: The VIC Circuit

This is from Stan's Memo WFC 420. The hydrogen fracturing process. **Voltage potential to stimulate water molecules to produce atomic energy on demand.** He says right there in his paperwork, Stan's words.

So, this is his VIC. You have a primary, you have a secondary, you have a choke and a choke, you have a diode, you have the water capacitor. In this paragraph, he's talking about the primary, secondary, isolated ground. And he goes into a lot more in-depth — you notice **resistive wire coil R1**. He puts stuff everywhere: isolated ground, resistive wire, resonant charging choke, tuned resonant charging choke.

The Diode's Critical Role

If that diode is non-functional or not there, you're going to get a wave, an AC wave, and you're not really going to get any bubbles. A lot of people on the Internet, you'll see, "oh, I got 50,000 volts, I got 30,000 volts." Well, if they actually show in the oscilloscope shot, you can clearly see they have an AC wave — like one bubble. Well, congratulations on that one bubble.

So, what the diode does is it biases everything to the DC side, to the positive side.

Series vs. Parallel LC: The Key Insight

One thing that I would ask you to think about: he talks about building voltage across the water capacitor. And if you study resonance of LC circuits:

- **Parallel LC circuit** = maximum voltage
- **Series LC circuit** = minimum voltage, but maximum current

If you look at what Stan has presented, **that is a series LC circuit, and not a parallel.** So, how in the world does one go and figure out how to get high voltage?

It looks to me like **when that diode is conducting, it looks like parallel resonance, and then when that diode is blocking, it looks like series.** Anyway, that is an issue that comes up with why there's these resonant charging circuits.

Q Factor and Voltage Multiplication

[Mark Sebastian, professional chemist and electrochemist, joins the discussion]

Mark: I want to say this is actually related to a concept called Q, which is not the charge Q, but it's the **quality factor of an inductor**. If you look up **Boonton Radio Corporation Q meter from the 50s**, that was a way that people were trying to define the highest value resonant coils for radio.

You would put a series circuit where you're taking like a tenth or a hundredth of a volt output of an oscillator. You're going into your coil and then into a variable capacitor. And you'd put a vacuum tube voltmeter on the capacitor and based on the Q of the coil, this 0.1 volt or 0.01 volt — **it could get amplified by the inductor capacitor to where you could get hundreds of volts.**

Max: He's saying that the Q factor goes to infinity if the resonance of these are correct.

Mark: So you could drive that with a very low voltage and the voltage across the capacitor will go up. The voltage across the inductor will be zero. But the voltage across the capacitor will be way high.

Max: And we know this is basic electronics. It's radio. It's been done since the 50s. This is all real physics with real mathematical formula.

Q Factor Explained Simply

Q: The voltage is going to be always limited to the size of the transformer?

Max: No. So let's say you were an Olympic swimmer. And you could swim from one side of the pool to the other side of the pool in 10 seconds. So your Q factor is 10 seconds. That's the best you can do. So if you get the vibration correct, it's just going to keep climbing. **Regardless of the size of the transformer.**

Mark: Q factor is X_L divided by R_L, the resistance of the wire. And so that number can be anywhere from like about **500 to 1,000**. That's about the tops of what people have measured. Because you're always leaking some amount of resistance. If you had no resistance, you'd have infinite Q. And there is nothing that has infinite Q.

The Water Capacitor is a Leaky Capacitor

Mark: Where they did it in radio, they did it with pseudo-ideal capacitors — variable capacitors with air as the dielectric, really high resistance. **When we're talking about the water fuel cell, you're talking about an extremely leaky capacitor.** You've got a lot of current. Leaky means you're losing something. It's conductive through the water.

Even water, apart from anything done with Stan Meyer or any electrolysis stuff, water breaks down thermally into hydrogen and hydroxide. It's like **0.7 micromolar in concentration**. Water's concentration as a compound is about 55.5 moles per liter. So if you just put water in a flask, you're going to have that concentration of ions just from thermal breakdown.

Step Charging: Multiple Definitions

Mark: I reread a couple of patents this last week. He's got a variable transformer with multiple taps, all SCR controlled from a controller circuit. I think he uses **multiple definitions of step charge**:

1. **Conventional step charging:** Each pulse contributes a little bit more. If the RC timing constant is long enough, it will stay pretty flat and each time go up a little more.
2. **Voltage stepping:** He has a transformer with different windings, and he put an SCR to where he could pick the voltage — he steps up the voltage himself at various levels.

Max: This is one where he specifically says that as you tune the dial, the voltage goes up towards infinity and the amperage goes down.

Impedance, Reactance, and Why Math Matters

Max: Z is impedance. Z is working resistance. Stan didn't put it in that equation, but there's another equation: **$Z = V / I$**. That's like Ohm's law.

Mark: When you go to AC, you end up having reactance. As your frequency changes, as your coils change, as your capacitors change, this frequency will determine just like turning a variable resistor. So the idea with the frequency here is to tune it until you get your total Z.

The impedance formula: **$Z = \sqrt{(R^2 + X^2)}$** — you take the resistance, square it, take the reactance, square it, sum them, and take the square root. It's the root mean square. Beyond a factor of 10, one will dominate.

Max: If you don't do the math, you're just working at Kroger's.

Electrochemistry of Water Splitting (Mark Sebastian)

How Hydrogen Actually Comes Off

Mark: If you look at the top picture, that's shown with hydrogen where you got a single proton in the middle, and then you got your electrons out on multiple different shells.

What Stan is doing: the static field pulls off the electron. The electron causes the proton to pop off and give you this energy state where it's unstable and reacts. **The fact that he could do this fine-tuning the amount of energy to just pull off the electron is phenomenal.**

You get the two hydroxyl radicals on the anode. Radicals are extremely reactive. Two hydroxyl radicals coming together at the anode — they make **hydrogen peroxide**. And hydrogen peroxide just thermally breaks down into oxygen and water. It takes hardly any energy to do that.

Water's Dielectric Changes with Conditions

Max: He specifically says the dielectric constant is **78.4 at 25 degrees Celsius**. He's telling you the dielectric so you can find the capacitance of the water in the plates.

Mark: As the temperature changes, the dielectric constant changes. If you're performing an experiment at 90 degrees and then do it at 55 degrees, well the dielectric constant is different. You've got to change your algebraic equation.

Even with just distilled water: apply a variable DC power supply and measure current. You will find that **at about 12 volts, all of a sudden the slope changes**. You start getting bubbles. Water actually conducts more and more as the voltage goes up.

The Resonant Cavity

Max: A resonant cavity is designed for a certain signal frequency. That signal will bounce around inside of there and that bouncing around will compound the action.

What he's saying is when you take the water and split it, now you have oxygen and hydrogen. A particle that has a positive or negative charge is an ion. Once a particle has a charge, a static electrical field will pull that ion. Once you have ionic movement, you have particle acceleration — it will bounce around in there and one particle will impact with another particle. **Then you have a chain reaction. You have an atomic destabilization.**

[The spherical resonant cavity — Simon's replication: three inch diameter with a one inch ball inside, port for water flow, and laser injection port]

Pulse Timing and the Resonant Cavity

Max: You have an electrode and an electrode and then you have a pulse. You have a time distance here. **This pulse needs to be shorter than that time distance.** If the pulse is longer than that time distance, you have a grounding effect and you have amp flood. If the pulse is shorter, you have very little amp flood. Then you time the circuitry in the transformer so that it matches that distance.

Photon Energy and Electron Excitation

Max: We're talking about photon energy and it excites the electron. Stan's saying if you pulsate it, it excites it more. He's saying pulse it.

Mark: One of the theories is that the electron can actually absorb more than one photon. During pulsing, that gives it the chance to collect more than one photon.

Max: The photons are sort of like that trigger that's just tipping it over the edge. Your electrostatic stuff with the water and the metal — that is what's actually driving the thing. **The photon is just triggering it.**

The Electrical Polarization Process

Max: Disassociation of the water molecule by way of voltage stimulation is here on called the **electrical polarization process**. He's actually naming the process. He created it. Basically, you make a positive and negative field and you pull this stuff apart and you excite it.

Self-Sustaining Chain Reaction

Max: With each collision, you have a multiplicity of collisions after that. One collides into one, which becomes two, that two becomes four. So if you have more collisions, that's like free hydrogen coming off.

Stan said he could turn off the electricity, and it's still making for X amount of time. Well, yeah, you still have collisions going on. It's a chain reaction. It's going to keep flowing. But it's making hydrogen and oxygen from the water, so eventually it's going to slow down.

Closing: What You Need to Know

Max: Everybody thinks it's just electrical and it's all over the internet. "Oh, it's just resistance. You add up this resistance and this resistance, and that's the secret to Stan's work." Yeah, they figured it out, gave him a million bucks. And in reality, **it goes into quantum physics and nuclear physics and ionic chemistry.**

You need to know several different things. You need to know how to be a mechanic — you got to get the car running. Then you got to have some chemistry background and understand some nuclear physics. It's just a whole bunch of stuff you need to know.

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