Crash Course Chemistry: Outtakes #4

Outtakes
https://youtube.com/watch?v=icvR7FzzldM
https://nerdfighteria.info/v/icvR7FzzldM

(*Intro Music*)

Hank: I'm glad I'm in the water it's hot! This is the Clark Fork River... there's another line after that, there's a lot more words after that. There's so many fish on my feet!

Hank: In Montana, where I live.. something!

Hank: So the Clark Fork's geochemistry explains why... crap.
So the geochemistry of the Clark Fork explains why acid rain isn't as devastating here as it is in say the Atar- Ata-Atarackdackdack.

Hank: This is about buffers
Hank: Badudududududududubububu.. dudududbububudub!

Hank: I didn't see you point at me Nick!
(*Nick laughs*)
Hank: How do I know?
Hank: Did you point at me? Do it again. Point. Point more. That's creepy, that's too much.
Hank: Did you point at me?
Nick: No I was waiting for you to stop talking.
(*Hank laughs*)
Hank: That's not how it works. I talk forever, until you point.

Hank: Acid loses xm, and gains- and both ions gain x.. more x.

Hank: The symbol for this kind of equilibrium constant is ka for an acid or kb for a base.

Hank: A rate law in this form is said to be of the fourth order, we get that al- alu by adding valghs the fourth.. hard.

Hank: A rate law in this form is said to be of the fourth order, we get that by adding together the exponents..
(*Nick laughing*)
Hank: Shut up..

Hank: A rate law in this form is said to be of the fourth order, we get this value by adding together the exponents, three plus one, and adaxwehus four.
(*Nick laughing*)

Hank: Then solids like my table here or my phone, or m- this isn't a phone..

Hank: I missed a, missed a, missed just a couple of words there.

Hank: So use the equilibrium expression for acetic acid, and put it, put it in, put in, put in the ka and the equilibrium concentrations from the RICE table

Hank: So use the equilibrium expression for acetic acid, and put, p-, p-

Hank: So use the equilibrium expression for acetic acid and put it in the k, put in, put in, put in, put one no not it put in, put in

Hank: Your pacemaker, hopefully you don't have a pacemaker but if you do, that too, I don't know where I'm going.

Hank: Medium, glubleglah
Nick: Gledium.

Hank: And another part where there being and glugghh

Hank: Dudududchibghaka..

Hank: Eeeeeeehhhh..

Hank: Which is why we call these things alkaline batteries

Hank: With a little algebra it's simplifi- simplifies? That doesn't look simpler. I guess you could call that simplified, but that's, ah I mean I could use the quadratic equation but that's, it sounds just terrible to me so, let's loshialuheua...

Hank: Heugh, that's like quadratic, I don't wanna do that. So here's a little trick to make this a lot easier. Hairs a little trick! Hairs a little trick!

Hank: -A rur, a rur a ru a random
(*Michael laughing)*

Hank: My finger itches. Why? Why do I hear it?

Hank: If it's so small that after rounding for significant digits it won't change our answer blphoo!

Hank: The rest of the problem cancels out leaving x to equal 1.75 times ten to the negative fifth.
Michael: It's not five, it's three.
Hank: Why did I say five?
Michael: (laughing) I don't know!
Nick: Three sir!
Hank: It said it right there!

Hank: The rest is a breeze, with a couple taps of the calculator we find that the ph is 7.45- it's not, it's not what it says..

Hank: The rest is a breeze, with a couple taps of the calculator we find that the ph is se-seveenn.. ahhhh! That was too much, I didn't know where the table was!

Hank: Is it too loud? Put your headphones back on. AEEAGHHH!

Hank: What if we tried the persshdebaa!

Hank: So badly that they can't driven anymore and the last driver of a car that continues to tch- drive.

Hank: Damaging your own car, and the last-

Hank: Every reaction has a minimum amount of- minimount! Minimumamount! Minimumamount! Minimumamount!

Hank: Every reaction has a minimum amount of energy-rrreouurequired.. to get it.. started..

Hank: Because it involves reactions that either produce, or consume react- plbphh!

Hank: I've told you about redox reaction before and if you haven't seen that episode yet, you should probably watch it before you watch this one..

Hank: Like for example, this kind of work! Uoorgh! It's not mine, I don't wanna break it.

Hank: Well it's kinetic energy, the kind that comes from a particle's speed- it's actually the literal speed of the atom. So just like cars and demolition derby, all else-
(*Nick laughing*)
Hank: What?
Nick: That didn't work *at all*.

Hank: Like if you keep smashing the back of a guy's trunk, you're not gonna stop his car from going.. cause there's no engine back there..

Hank: We find that the rate of the reaction is 0.012 mol- moles.. that's not very many moles! It's hard to have really 0.012 moles.

Hank: Equilibrium expressions are also used - oh blphh!

Hank: Equilibrium expressions also used bracketed concentrations with exponents and that's no accident, the- those- beh- the- thee!

Hank: Now if you've watched out episode on equilibrium this formula should w-wook..

Hank: Now if you've watched out episode on equilibrium you should bllpphhhhhhh..

(*Nick laughing*)
Hank: No idea what I just said! I'm sure that the graphics will make it clear.

Hank: Of their electrons, their chemical bonds, and their intermerrrr..

Hank: Like foams and gels and colloids like mayonnaise and rubber waxes and some biological tissues such as fat!
Michael: Ooooooooh
Hank: Zzzzzooozooooo

Hank: Resu- reszzzzzz.. zzzzzooozzoozzz.. zz!

Hank: In order to do it right, you have to type- tep tuptupitap! Baptipbiptabab!

Hank: Moleculer ... like, mol-e-q-ler ... that makes sense?

Hank: Atomic sollage, like the name.. sollage? Sollage?

Hank: I don't want to say it now except tubdubtibow but it's some ggurshbow..

Hank: The diamond in this ring- aaaahhhhhhh..

Hank: Fascinatingly enough only a few minor differences in an atomic arrangement allow an element found on.. the.. bottom..

Hank: Once you learn the chemistry of these different netics- netics?

Hank: Both of these properties make ceramics useful in tonnes of ways which you've probably been exploring.. when you were a toddler.. and got your first box of modelling clay.

Hank: Now if each of these half reactions occurred within contact of the other they'd spontaneously got to equilibrium and-

Hank: Release beglagrableghraba! Br- breleasing! Breleasing a bunch of blenergy!

Hank: Thanks for watching this episode of Crash Course Chemistry, if you were listening that avaca-avaconventional? Avacontential.
Nick: That's a great word.
Hank: I don't think it's a word though?
Nick: It is now!

You learn that electrochemical reaction are aaaah- aaaughaaaa..

Hank: The script supervisor wasn't here, and Michael Aranda is our sound designer.

Hank: Like how Bohr figured out his model or Heisenberg used math to usher in qu-

Hank: Combustion, halogenation and dehydrananation.
Nick: Ooooooohhh

Hank: And Michael Arounda- Arounda?
Michael: Arounda?
Hank: Arounda?

Hank: This episode was written by ED Gonzales and edited by Blake DP- deep eee- de Pastino..

Hank: Our script supervisor was Michael Aranda. He was also our graphic designer - graphic designer, apparently.

Hank: The script supervisor was Mmmmmmmichael Aranda.

Hank: Our scriulaaaaaalalaa! Why? This is the easy part!

Hank: And finally, you learned that chemical reactions actually happen in steps, that the slowest step determines the overall rate of the reaction, and that the- reeeeeeason for thaaaaaat!

Hank: You've also learned that I should have the teleprompter going faster..

Hank: You also heard some of the properties of these solids- lelelalalalalala!

Hank: And diamond, are network- dah! Heuh! Heuuuuuh!

Hank: You learned that both diamond and graphite are both network solids made up of sure carbon atoms, but, but, butbutbutbutbu, but but but butbuttbut butbu but but!
Michael: Goodnight everybody!