

Photosynthesis Proves Again my Charge Field and Nuclear Recycling Theory

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A reader brought this to my attention. It has been recognized for decades that [photosynthesis is mysterious in the amount of energy it is able to harness and produce \[see for example J. Phys. Chem. Lett. 2022\]](#). Early on it became apparent that the efficiency of photosynthesis was unexplainable by classical models of energy transfer, so many rushed in to claim that “quantum effects” could help explain it.

Already we see the lack of rigor by just studying the terminology. Since the world is built on quanta, quantum effects should determine everything. But that isn't what they mean here. They don't mean quantum effects, they mean quantum TRICKS, but they can't afford that sort of honesty. They need to boost energy production here, so they need their old bag of tricks including borrowing from the vacuum, (misdefined) superposition, entanglement, tunneling, and so on. These have allowed them to fudge embarrassing answers to a wide array of problems, while skirting real mechanics and all the old rules of physics, logic, and consistency.

But as with everything else mainstream, all that died an ugly death upon the arrival of my [nuclear diagrams](#) and the accompanying [charge field architecture](#), which has revolutionized all the sciences. Or should have. And soon will. That, combined with my [new model of energy recycling by the Earth](#), has changed all the old classical models, updating them with a vastly improved mechanical model of energy transfer. Once we have that to work with, photosynthesis and a thousand other things are no longer mysterious. Or, not as mysterious as they once were. My models don't explain everything, of course, but they allow us to match energy transfers much much better. We don't encounter the huge embarrassing misses that the mainstream has had to deal with in the past century.

So let's return to that paper in my first link above at *J. Phys. Chem. Lett.* (and others), to unpack all this. In the abstract by Runeson et al we already find the use of “excitonic coherences”. A huge red flag, since this refers to *excitons*, a fictional quasi-particle dreamed up—like all other quasi-particles—to fill a specific hole in equations that were misfiring badly. In other words, these “quantum physicists”, ignorant of the basic structures like nuclear architecture and charge pathways, were forced to ditch all known particles and experiments, replacing them with hypothetical particles and structures. They then cobbled together a faux-math to contain these faux-particles, and MODERN THEORY was born. A theory that was not so much a theory as a fantasy, no better and in some ways worse than Aristotle's orneries. Worse because at least Aristotle could plead ignorance. He was making up stuff in a complete white space of knowledge. But modern “theorists” can't do that, since to sell this horrible fiction they have to ignore shelves of books and experiments already cataloged in the library. They have to ignore the dictionary itself and the very definitions of words, as they mangle everything they touch.

If you don't believe me, or think I may be overstating things for effect, I encourage you to go to the

[Wikipedia page for exciton](#), which page was written from the universities. This is the start of that:

An exciton is a **bound state** of an **electron** and an **electron hole** which are attracted to each other by the electrostatic **Coulomb force**. It is an electrically neutral **quasiparticle** that exists in **insulators, semiconductors** and some liquids. The exciton is regarded as an elementary excitation of **condensed matter** that can transport energy without transporting net electric charge.

It is difficult for me to believe how unscientific, not to say disgustingly ugly, that paragraph is, and it should be difficult for you, too. If you call yourself a scientist and you can read that without choking, you need to take a serious look at yourself. It is cringe-worthy because it is being sold as science, but it doesn't touch reality at a single point. There is no such thing as an electron hole, and even if there were you could not have a bound state between a thing and its own hole. That is just jactation. As is the claim that the Coulomb force binds the electron to its hole. No one in his right mind believes any of this crap, and the only reason anyone accepts it is that it allows them to create pretend energy that they can use to fill other holes in equations. Every knows that, so it is doubly embarrassing that I am the only one saying it. A world full of scientists, and not one of them can state the obvious or argue for the truth.

Given that, we know without further study this paper at *J. Phys.* is more blather. If they can mention the word *exciton* in the abstract without tearing it into little pieces, we know they have nothing useful to add to the argument. That is clear from the thesis of the paper:

Here, we address another recent claim: that the efficient energy transfer in the Fenna-Matthews-Olson complex relies on nuclear quantum uncertainty and would not function if the vibrations were classical. We present a counter-example to this claim, showing by trajectory-based simulations that a description in terms of quantum electrons and classical nuclei is indeed sufficient to describe the funneling of energy to the reaction center. We analyze and compare these findings to previous classical-nuclear approximations that predicted the absence of an energy funnel and conclude that the key difference and the reason for the discrepancy is the ability of the trajectories to properly account for Newton's third law.

They tell us they are going to explain the energy funnel using classical nuclei. In other words, Runeson and his buddies are telling us there was never any problem here to start with. We don't need Miles' nuclear architecture, since this was just a misunderstanding. Sort of like when [I solved the unification problem](#), and the mainstream hired thousands of people to go on youtube, twitter, facebook, and all the science mags and forums, claiming no one cared about unification anymore. For a hundred years, up to the moment I solved it, it was listed everywhere as the biggest unknown in physics. But as soon as I posted my solution, suddenly no one cared. It was old hat, yesterday's news. Out of fashion. Nobody was working on it anymore, and they were too busy with more exciting things to even read my solution. Except that they did read it and realize I was right: otherwise why bury me with such astonishing levels of negative PR.

Also note they use the term "energy funnel". They admit there is something here acting as a strong pathway of energy, not previously explained by atomic or molecular structure. Seems my charge channeling theory might be a good fit here, creating exactly this kind of energy funnel? No: since I posted my solution in 2011, that is of no interest anymore. According to these authors, as it turns out the old classical nucleus COULD create powerful energy funnels. Ten decades of top theorists just missed that.

In short, oscillations have been found in the FMO complex in plants, and everyone is now jumping on that to bolster their theories. The cutting-edge QM guys are using their squishy models to generate those oscillations from nowhere, but Runeson et al here are covering the other base. For those weary of the old QM tricks—pulling everything out of the vacuum with a smelly conjuring—Runeson and the rest have been tapped to convince their colleagues these new oscillations explain the energy funnel with or without (most) quantum tricks. As we see from their abstract, they have a classical nucleus . . . meaning, I guess, an unknown blob that they can utterly ignore.

So, we look with great anticipation to see how they will create this energy funnel with a classical nucleus. And we are immediately disappointed to find they don't get anywhere near doing that. They start with a model they call figure 1, and that model doesn't even contain a nucleus, classical or otherwise:

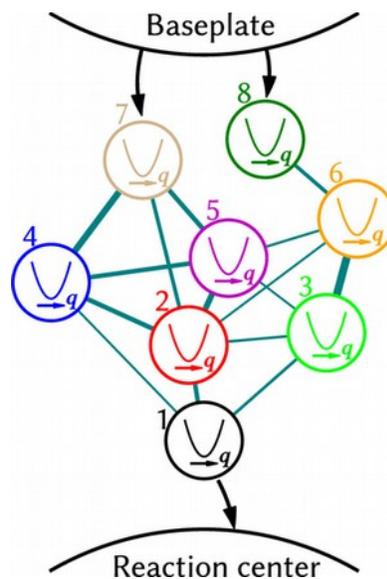


Figure 1. Schematic depiction of energy transfer through the FMO complex. The complex is modeled by eight excitonic states (colored circles) that are coupled through a set of vibrational modes.

You have to laugh. You can now see why they used the exciton in their abstract. They are using this mythical quasi-particle to manufacture a solution to this problem . . . then calling it classical! The sheer chutzpah is mindblowing. **Runeson is critiquing the QM interpretation by accepting their model!**

But it gets worse:

By analyzing the Redfield rate constants, it has been argued that quantum uncertainty is necessary for the biological function of light-harvesting complexes. (9,14) In this analysis, a “classical” approximation to Redfield theory is defined by replacing quantum expectation values of the nuclear degrees of freedom, such as $\langle \hat{q}^2 \rangle$, by their classical counterparts, i.e., phase-space averages.

Do you see the strawman? How could you not, since this is the definition of hamhanded? The “classical solution” is being defined simply as phase-space averages instead of quantum expectation values. But since those phase-space averages are based on near-zero knowledge of either the space or the structures involved, they are worthless. The mainstream still has no idea how energy is channeling at the quantum level, beyond fudging it with their imaginary particles and dreamed-up potentials, so “phase-space averages” is meaningless. It is words that don't refer to anything.

Runeson first glosses the heretofore heavily promoted Redfield QM solution, which uses two major fudges to increase the energy funneling. The second is the Born approximation,

which treats the coupling between the (electronic) system and (nuclear) bath as a weak parameter and uses second-order perturbation theory to obtain explicit expressions for the rate constants in terms of time integrals of bath correlation functions.

In other words, the usual non-mechanical blather, made up from nothing. Second-order perturbation theory? The fudge of a fudge, since [I have proved perturbation theory](#) is one of the great finesses of history. It is precisely what fell with my unification.

But Runeson has nothing to say about any of that, of course, since, like Redfield, he knows and cares nothing about the real field. He couldn't solve this if he wanted to. He pretends in the abstract his quibble here has something to do with classical mechanics, but it doesn't. It has to do with tweaking the QM assumption *of* the classical space. He points out that

the “classical” Redfield theory predicts equal population of all exciton states at long time.

Why? Only so that taking the classical limit of this pseudo-equation leads to crisis, which Redfield takes as proof it can't work. But since there are no exciton states to start with, assuming equal or unequal populations makes no possible difference. Redfield has invented all this with a wave of a wand, so applying any sort of math to it is just fantasy. Limits mean nothing when applied to ghosts. Runeson doesn't need to be tweaking any of these assumptions of Redfield, he needs to throwing them all in the incinerator.

Instead, Runeson simply out-tricks Redfield, by using Dirac to get an alternate classical limit. He dredges up the correspondence between QM commutators and “classical” Poisson brackets to find the expectation values unchanged. So classical is just as good as QM here, he assures us.

In one way that is amusing, since Runeson has just pricked the man with his own stinger, but more broadly it is just sad that anyone is still wasting time on this question, one way or the other. Excitons don't exist, so using any population of them, or applying any math to them, is pathetic. No one who had a real job would stoop to doing it.

That is because this isn't solved with excitons or other quantum tricks, it is solved by studying nuclear architecture. You may ask Runeson why he bothered to mention the nucleus in his abstract, when his solution has nothing to do with it. His trick had to do with the Poisson brackets, not with the nucleus. There was no reason to mention the nucleus at all, classical or otherwise. So why did he do it? As misdirection. He wants you to *think* this has something to do with creating these energy tunnels with a classical nucleus, but in his solution it doesn't. His solution would be the same with any possible nucleus, or with no nucleus at all. The universe could be created entirely of electrons crouching in holes and his solution would be the same. It could be created out of red dogs playing maracas and it would be the same.

He is trying to keep your mind off the question begged: how does either his model or Redfield's physically create an energy tunnel? It doesn't. Both just take the oscillations as given, then try to force-fit some exciton population on top of it, and sell that as an explanation. Neither get anywhere near explaining how real energy is channeled in the real field, *inhabited by a real nucleus*.

But of course my nuclear architecture does exactly that. I have proved the nucleus doesn't just contain charge, it *channels* charge. Huge populations of photons travel right through the nucleus on defined paths, of different strength and composition for each element. This not only creates electricity and magnetism, it creates all larger charge lines between molecules. It creates bonds. It creates apparent repulsions. And, it creates larger scale energy transfers like we see in photosynthesis. It creates oscillations where an unchanneled quantum field cannot.

These photons winds, *not* electron configurations, are what generate all energy transfers. Electrons do almost nothing—other than also channel charge—they are just along for the ride. It is real photon motions that drive everything. And there are no electron orbitals, blurs or not. The electrons and positrons settle in quite near the baryons, and the orbital distances we now have are **only distances of capture and release**.

You can read more about that in my papers if you like, but let's look at another mainstream paper to see how photosynthesis is being used to sell a quantum theory that is now in serious trouble. My paper on nuclear architecture came out in 2011, so we should not be surprised to see major damage control soon after that. As just one example, in January of 2014 [a paper](#) came out of University College London and PhysOrg claiming photosynthesis could not be explained by classical models. The group was led by Alexandra Olaya-Castro (AOC!), who put it this way:

We found that the properties of some of the chromophore vibrations that assist energy transfer during photosynthesis can never be described with classical laws, and moreover, this non-classical behaviour enhances the efficiency of the energy transfer.

Never? As usual with these people, strange and unscientific language. Scientific language would be something like, “We were not able to explain this with classical laws”. But since almost nothing was known by the mainstream of the structure of the quantum field—even in 2014—that is pretty much meaningless. How could they even begin to apply classical laws to a quantum field, when they didn't know how the nucleus was built, what charge was, and how energy was transferred locally? Since photosynthesis is taking place on the Earth, they also need to know how charge moves here, and they don't know that, either. They still don't know that the Earth is channeling charge just like the nucleus.

So AOC is just jumping to a conclusion here. She and her colleagues can't explain it, so it must be due to quantum effects—voodoo involving lots of non-local magic. To make a sweeping statement like that “never”, AOC should have been required to address all standing classical solutions, showing how they failed. Do you think anyone said to her, “Alexandra, my dear, have you seen this paper by Miles Mathis that is burning up the internet now? He claims to be able to produce energy tunnels using channels through the nucleus. It is pretty convincing, since it is just straightforward poolball mechanics, with no new manipulations.” No, none of that, although by 2014 that paper had already gone viral. If AOC hadn't seen it by late 2013, she has certainly seen it by now a decade later. Most of my important papers [went to the front page of Google](#), beating Wikipedia and Dictionary.com before they were forcibly suppressed and censored in about 2021. So these people can't plead ignorance. At this point they can only plead ostrich, stick in the mud, mandarin, or tyrant.

Here's another strange quote from that article, showing how completely clueless they were and are:

Providing that the energy associated to the vibration is higher than the temperature scale, only a discrete unit or quantum of energy is exchanged. Consequently, as energy is transferred from one chromophore to the other, the collective vibration displays properties that have no classical

counterpart.

Only a unit of quantum energy is exchanged? What classical law ever claimed or implied that? The only single unit of quantum energy of that sort would be a photon, and there is nothing to say that energy transferred between chromophores is limited to one photon at a time. They are assuming the collective vibration is a straight function of photons released from electron orbitals, since that was the classical assumption of energy production by the atom. But just because that idea is wrong doesn't mean every possible classical explanation is wrong. By classical, they appear to mean "at least a hundred years old", while I mean anything that doesn't include QM fudges. My solution is classical because it is completely mechanical at all points. And it solves this at the touch of a button, because energy isn't fed into the chromophores one photon at a time from electron jumps. It is fed into them via charge channels containing millions of photons. Yes, *changes* in the field are still quantum in my theory, in that they have a discrete lower limit. You can't have transfers below one photon. But you can easily have transfers or increases above one photon.

Here's another embarrassing sign of their confusion:

The UCL team found the unambiguous signature of non-classicality is given by a negative joint probability of finding the chromophores with certain relative positions and momenta. In classical physics, probability distributions are always positive.

No, since they are simply doing the math wrong, based on a misunderstanding of the field. That statement would be true only in the case that certain positions and momenta weren't ruled out from the start, by a field already containing definite channels. In a field where the nucleus is recycling energy in definite channels, some momenta and positions are impossible. But if you don't know that, and you apply probability distributions over a field that is assumed to be homogeneous, *and* you do that with a stupid and misdefined HUP that uses joint probabilities, you will end up with some negatives. But that doesn't tell you your field isn't classical, it tells you your assumptions and math are garbage.

Have those authors retracted or updated that paper since 2014, after being enlightened by my 2011 paper? What do you think? But surely *this* paper will embarrass them into a retraction or an update? Not a chance. They will just double down again, replying, if at all, through surrogates calling me a bully or an egomaniac or something, while continuing to ignore everything I have written. They will put in another call to Google and Bing, demanding I be silenced in the name of science, democracy, and an open discussion.