The Breakdown of Fourier's Law

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[This paper immediately went to #1 at Yandex on "breakdown of Fourier's Law", ahead of researchgate, which has the same title. Also ahead of aps.org, academia.edu, arxiv, aip, youtube, MIT, and everyone else. It is also #1 at Bing, behind a few promoted listings. It is #3 at Yahoo. Amazingly, it is still #14 at Google, which normally censors me on all topics. So I guess someone over there doesn't like Anderson. Or is it Sommerfeld they don't like?]

I have already hit this problem with my papers on the Drude-Sommerfeld model and Anderson Localization, but I didn't connect it to Fourier's Law there, so I will do that here. I do so because Fourier's Law is in the science news this month, as researchers admit it doesn't work at the nano-level and below. My readers are informing me of this, because they can see it is yet more proof of my charge field. At ScienceAlert, they admit this is "a Startling Exception to a 200-Year-Old Law". As such, it should require them to rewrite all of physical chemistry from the beginning, but of course they aren't getting that message. They can't do that so they think it best to pretend this is just a little blip in the road. Even worse: I have done that but they don't want to admit it. They have to keep pretending I don't exist, even while my papers—including that Drude paper—have been superviral for years, outranking all the universities sites and Wikipedia itself.

Straight from Wikipedia:

The law of heat conduction, also known as Fourier's law, states that the rate of heat transfer through a material is proportional to the negative gradient in the temperature and to the area, at right angles to that gradient, through which the heat flows.

But at the molecular level, that isn't true, they now admit. Heat transfers much faster, indicating something different is going on at small scales. My readers already know what it is: unknown to Fourier and still unknown to mainstream scientists, the nucleus is channeling charge. So are molecules. All EM energy is carried on charge streams, including all nano-scale spin energy, so these pre-existing energy paths will naturally facilitate any energy transfer, including of course heat energy. In fact, heat *is* charge at the most basic level, and they know that, or should. Photons=charge=heat.

If you consult the page on thermal conduction at Wiki, you find this:

Internal energy diffuses as rapidly moving or vibrating atoms and molecules interact with neighbouring particles, transferring some of their microscopic kinetic and potential energies, these quantities being defined relative to the bulk of the body considered as being stationary.

That's why this surprised them and why they can't solve it. As you see, that is both incredibly naive and incredibly *wrong*. They think that at the molecular scale, energy transfers via vibrations and direct contact, like one of those old table football games your grandfather had. You plug it in and everything starts vibrating and the little men push eachother around. But I have shown it isn't like that at all. The spinning nucleus has a structure that pulls charge in at the poles, similar to what goes on here on Earth.

If you consult the various models of the ionosphere and magnetosphere, you will see that it is known the Earth pulls in charge in polar vortices north and south. So do all the other planets and moons, as well as the Sun. So does the galaxy, for that matter. Well, the nucleus does the same thing, on a much smaller scale. It pulls in charge at the poles and releases at the equator. But some charge goes pole-to-pole directly, creating long lines of charge between atoms. This is the creation of EM.

Once you know that, this problem pretty much solves itself. It is the same problem as the Drude problem, come to from another direction. In the Drude problem, metals had a lower heat capacity than it seemed they should, given their thermal conductivity. But that expectation was based on a misunderstanding of conduction, in the ignorance of charge channeling. In other words, metals were heating up too fast in relation to their masses. Same thing they are finding now, except that now they are finding *everything* heats up too fast at small scales relative to large scales. As I say, that is no mystery once you have read my papers and understand how charge channeling works. The closer you get to the nuclear level, the more efficient heat transfer will be, because you are closer to the actual channels themselves. At larger scales the efficiency naturally dissipates, due both to leakage of charge and stirring by external charge fields.

I also draw your attention to this little "subtlety":

and to the area, at right angles to that gradient, through which the heat flows.

That's from the quote above. Why at right angles? Well, historically, because it gave them the right answer. But it looks to me at a glance that it is because heat is mainly flowing *magnetically*, since it is the M part of EM that travels like that. See above, where I said the main line of charge through the nucleus was pole to equator. That is a right angle turn. It is also the magnetic vector, and the cause of the magnetic field. It is through-charge, pole-to-pole, that is the electrical vector. But as on the Earth, pole to equator is the main and default route of charge channeling, since charge is following the angular momentum of the sphere, which is far greater at the equator. The nucleus is also roughly spherical. So for charge to travel pole to pole is the exception, requiring a special set-up like Silver or Copper. This means that if we sum over larger areas, we will find a field in which charge travels mostly magnetically. But if we zoom in, the closer we get to the nucleus the more we will see charge traveling electrically, pole to pole. That mode of channeling is far more conductive, since of course the lines of conduction are much straighter. Which will aid any heat transfer.

I would also expect this to vary based on the elements present, for the reason we just saw. Silver will not vary in the same way as Silicon, for instance.