**Seeing the inner workings of molecules, or wiring photons to molecules**

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To the extent that we see objects by the light they scatter, it is now possible to see atoms and to look inside molecules; albeit, through the plasmonic lens of a silver needle. This, atomic limit in optical microscopy, is attained through tip-enhanced Raman scattering (TERS) carried out with atomically terminated needles, at tip-substrate junction gaps in the tunneling range of plasmons. The key consideration is that photons incident on the plasmonic needle convert to time harmonic charge confined on the terminal atom at its apex. In the tunneling limit, photon and electron become indistinguishable and optical transitions reduce to alternating currents measured at atomic point-contacts with photons hard wired into the molecular electronic circuit. I will give examples of seeing intramolecular currents and junction currents carried by proton coupled electron transfer, conceptual bedrocks in chemistry that are now in plain view. More generally, I will point out that as the distinction between light and matter becomes moot, optics and electronics (physics and chemistry) seamlessly merge; ironically, returning us to Maxwell’s understanding of electromagnetism.