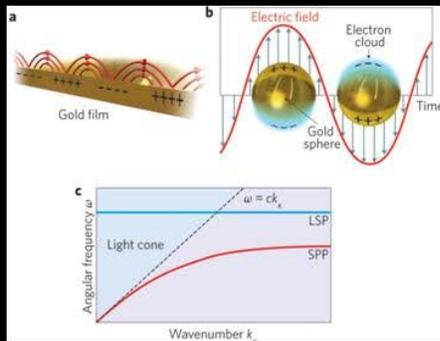


# What is plasmonics?



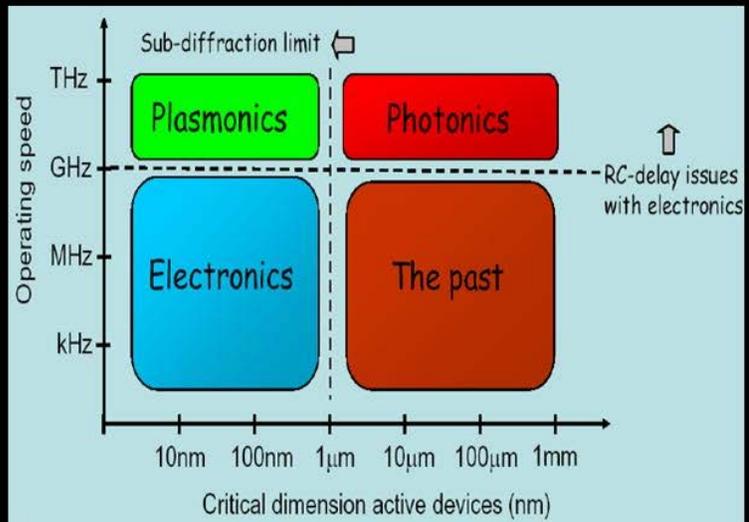
M.L. Juan *et al.*, Nat. Photon. 5 (2011)

Oct 22, 2009

## Intel turns to photonics to extend Moore's law

Intel's Photonics Technology Laboratory in California is showing how optics may one day enable computer-chip designers to overcome the fundamental limitations of electronics. Breck Hitz talks to the lab's director, Mario Paniccia.

Courtesy: optics.org



## Propulsion using gravitomagnetism coupled with Plasmonics

[Image Source: Purdue University See video on Plasmonics at: <https://nanohub.org/resources/13318/watch?resid=13600> ]

**Patent US 9,318,031 B2--[0069] "4.Transportation devices using mass-spin valve gravity rectification for propulsion."**

**Continuation Application A.15/130,813 for Device And Method to Generate and Capture of Gravito-magnetic Energy**

### **New Art--4. Transportation devices using mass-spin valve gravity rectification for propulsion.**

The power generation application of the invented device may be harnessed for purposes of powering electric vehicles of all sorts, including, but not limited to RVs, boats, cars, trucks, trains, airplanes, etc. Additionally, the implementation of the gravitomagnetic power generation should be readily achievable by replacing the existing battery source with one that is interconnected to the mass-spin valve for continuous power needs to be provided on demand.

“To produce a direct propulsion source that incorporates the mass-spin valve’s gravitomagnetic induction fields will require the incorporation of a type of plasmonic thrust using what is called Surface Plasmon Polaritons, which requires certain system configurations i.e. tuning, and a certain linear velocity of the turning

disk, preferably within the range of 1 to 13,000 RPM, to achieve the necessary harmonics.”

Quasi-particles are constructs that help physicists to make sense of the world; following is a non-limiting list of the relevant quasi-particles.

Electron quasi-particle – An electron with altered mass which accounts for all the interactions of electrons as they move through a material;

Hole – A positively charged spot where an electron once resided which is not static, and is used to understand behavior of electrons and protons when they exchange energy, often referred to as the generation-recombination mechanism in the field of semiconductor physics;

Exciton – An electron attracted to a hole, which leads to innovation in the fields of solar cells and light-emitting diodes in electronic displays;

Polariton – An exciton or similar particle coupled to a photon which leads to energy-efficient lasers;

Dropleton – A liquidlike cluster of electrons and holes that offers insight into commercially important semiconductors;

Phonon – A vibration that moves through a material’s atoms as if it were a particle and that may play a pivotal role in inducing superconductivity in matter; and

Plasmon – A wave of free-flowing electrons in a metal or plasma, which is essential for understanding how materials interact with light.

Plasmon waves are carriers of energy and have the ability to travel resistance free, but because everything in the universe is constantly in motion there are characteristic Plasmon waves, where these wave states act as carriers of energy, i.e. the Plasmon quasi-particles, having the ability through the superposition of states (harmonics) to also act as a power amplifier, which enables the production of thrust needed for propulsion.

Thus, the invented method and device provide a new way of powering electrical devices using gravitomagnetism, and a new way of producing thrust using gravitomagnetic induction harmonized with plasmonics.