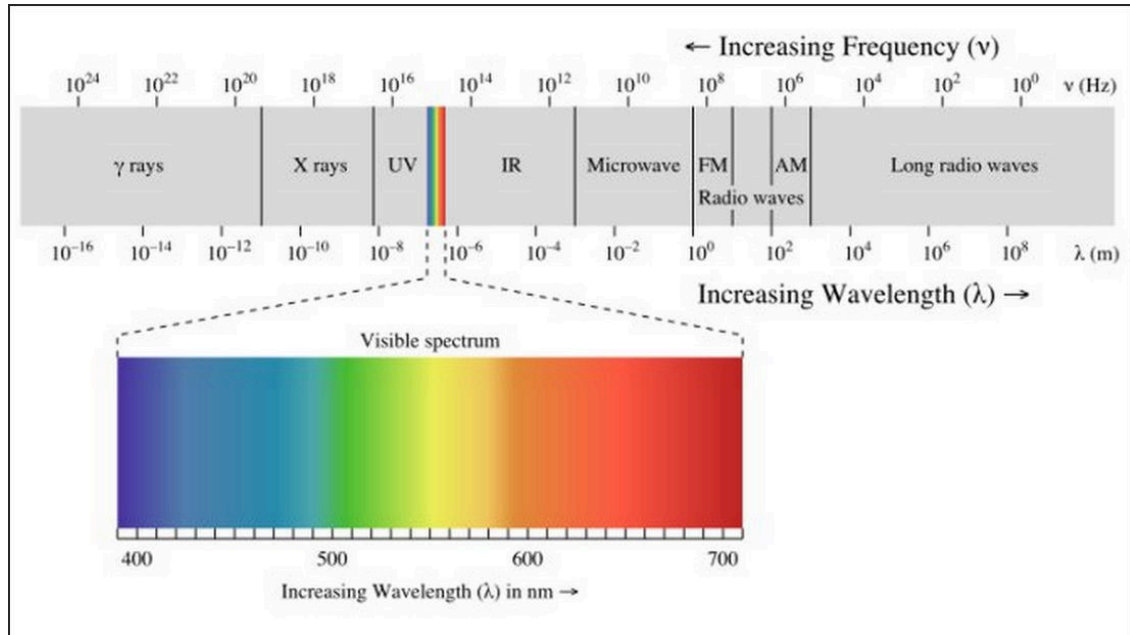


The Light

Yibing Qiu

Abstract: statement of light is just one kind of waves

Main viewpoints and conclusions:



In electromagnetic spectrum, Cosmic rays (composed primarily of high-energy protons and atomic nucleus), Alpha rays (He^{2+} or He^{2+} clusters), Beta or X-rays (electron or electron clusters) and Gamma rays (neutrino or neutrino clusters) are not could be regarded as 'light' or 'electromagnetic waves' due to themselves all are entity radioactive particles with mass and don't have the characteristics of electromagnetic radiation, thus, and moreover, these rays should be defined as *particle rays* and not belongs to electromagnetic waves.

That should be emphasized is: the material world as a whole, the emission and absorption of energy is at different energy levels and is quantized; but, within each determined energy level, the emission and absorption of energy is continuous.

One kind of light which with $E = h\nu$, is means that the energy level of the kind of light is $h\nu$; the *lowest energy limit* of light can be happen (to be born) is $h\nu$; the light beam with $E = h\nu$ is an energy package which has energy just equals (is) its energy level but it is not an entity particle. So, light does not have the properties of both waves and particles; it only is one kind and form of *Energy streams (Matter waves)*, and just having only attribute of wave.

References

- [1] *Electromagnetic radiation* https://en.wikipedia.org/wiki/Electromagnetic_radiation
- [2] *Light* https://en.wikipedia.org/wiki/Light#See_also