

Abstract Submitted
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In Research of electromagnetic wave mass YONGQUAN HAN,
15611860790 — 1, Einstein is pointed out that $E = mc^2$. Assuming that the mass
of an electromagnetic wave particle is m , according to Einstein's mass energy equa-
tion, an electromagnetic wave particle energy is: $E = mc^2$. 2, Quantum mechanics,
electromagnetic wave particle energy is the product of the Planck constant and the
frequency of electromagnetic radiation, $E=h\gamma$. 3, For an electromagnetic wave par-
ticle, $h\gamma = mc^2$, $m = h \gamma/c^2$. Because h is Planck's constant, c^2 is the square of the
speed of light is a constant, so the electromagnetic wave particle mass is related to
the electromagnetic wave particle's frequency, the greater frequency is, the greater
the mass of the electromagnetic wave particle is 4, analysis of Einstein's theory
of relativity mass and velocity relationship can not be the photon mass confusion:
electromagnetic wave particle mass is only related with the frequency of electromag-
netic wave particle, it doesn't related to the electromagnetic wave particle velocity,
although the propagation of electromagnetic wave particle velocity is as fast as the
speed of light, the mass will not tend to infinity

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