Abstract Submitted
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The Photon Impulse Equation SERGEJ REISSIG, EFBR — By using of the Newton formula $F = \frac{dp}{dt} = \frac{d(mc)}{dt}$ (1) together with the Einstein formula $E = mc^2$ the following equation can be received : $F = \frac{d(mc)}{dt} = \frac{1}{c} \cdot \frac{d(mc^2)}{dt} = \frac{1}{c} \cdot \frac{dE}{dt}$ (2). In [1,2] was shown: $-dE/dt = P = hf^2$ (3). The solution of the equation system (2,3) delivers the expression for the photon force:$F = -\frac{1}{c} \cdot hf^2 = -\frac{hc^2}{c\lambda^2} = -\frac{hc}{\lambda^2} = -\frac{hf}{\lambda}$ (3). With Eq. (2) and (3) the following relationship can be presented:$\frac{d(mc)}{dt} = -\frac{E}{\lambda} = -mc\frac{c}{\lambda}$ (4). The Eq. (4) let us to derive the photon impulse equation finally: $\frac{dp}{p} = \frac{d(mc)}{mc} = -f \cdot dt$ (5). [1] About the calculation of the photon power. S. Reissig, Bulletin of the APS, March Meeting 2004, Part I, Montreal, Vol. 49, No.1, p. 255 [2] The Photon Power and Stefan-Boltzmann Radiation Law. S. Reissig, Bulletin of the APS, March Meeting 2004, Part I, Montreal, Vol. 49, No.1, p. 255.

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