A surprising answer in the search for a comprehensive health protection exposure metric for radiofrequency (RF) fields MARJORIE LUNDQUIST, The Bioelectromagnetic Hygiene Institute — Matter can interact with light in 3 different ways (known by 1910): by absorption of energy [thermal hazard] or by absorption of linear momentum (radiation pressure) or of angular momentum (torque) or of both [nonthermal hazards].\textsuperscript{1,2} The same is true for RF fields; indeed, microwave wattmeters may operate on a momentum absorption principle.\textsuperscript{3,4} But most RF health protection standards today are based solely on thermal effects, ignoring nonthermal effects. Formal expressions for scientifically valid exposure metrics will be presented. It will be shown that nonthermal effects depend on field frequency, polarization and spatial configuration as well as on field strength, so a general metric valid for all fields may not exist. But with some approximations, the magnetic induction current may constitute an adequate practical exposure metric for RF fields. \textsuperscript{1}M. Lundquist, BAPS 50(1):620(2005). \textsuperscript{2}M. Lundquist, BAPS 50(1):1178(2005). \textsuperscript{3}A. L. Cullen, Proc. IEE 99Pt4(2):100-110(Apr 1952). \textsuperscript{4}A. L. Cullen & I. M. Stephenson, Proc. IEE 99Pt4(4):294-301(Dec 1952).

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