ABSORPTION STUDY

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The following table depicts an estimate of the amount of electromagnetic energy absorbed by a particle of barium at various sizes and for varying wavelengths. The results for other metals should be similiar to those of barium. The basis for this work is arrived at through a use of the exponential attentuation law in combination with the definition of the coefficient of absorption. The derived result expressing the energy absorption of a metallic particle is a function of particle size, conductivity, wavelength and the permeability of the vacuum constant.

ELECTROMAGNETIC ENERGY ABSORBED

Particle Size in Microns

	0.2	1	10
Wavelength			
Radio (10^8)	0.2%	1%	11%
Microwaves (10^11)	7%	30%	97%
Visible (10^14)	99%	~100%	~100%

X-Rays (10^18)	~100%	~100%	~100%

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