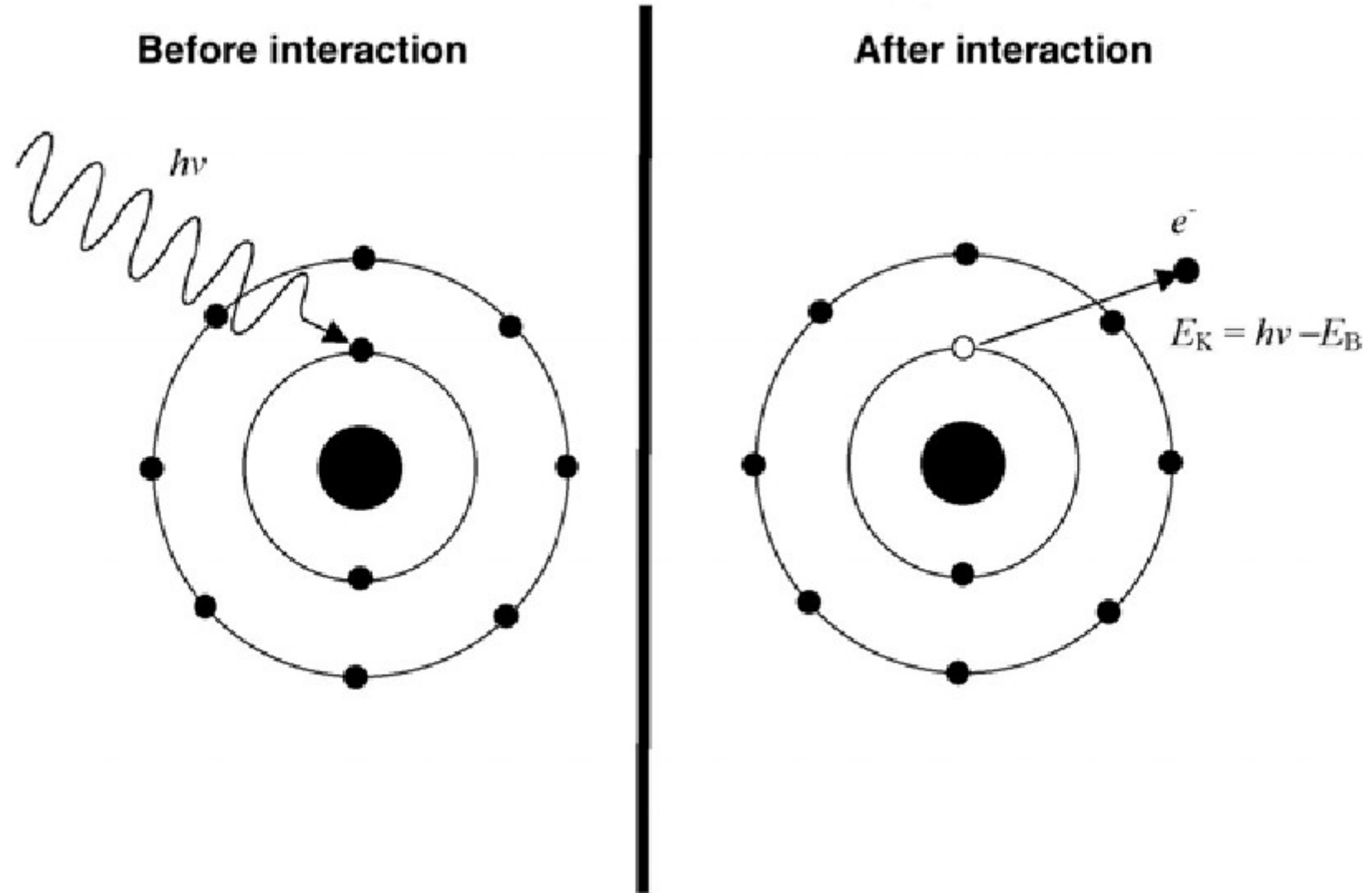


Efecto fotoeléctrico



Secciones eficaces para efecto fotoeléctrico

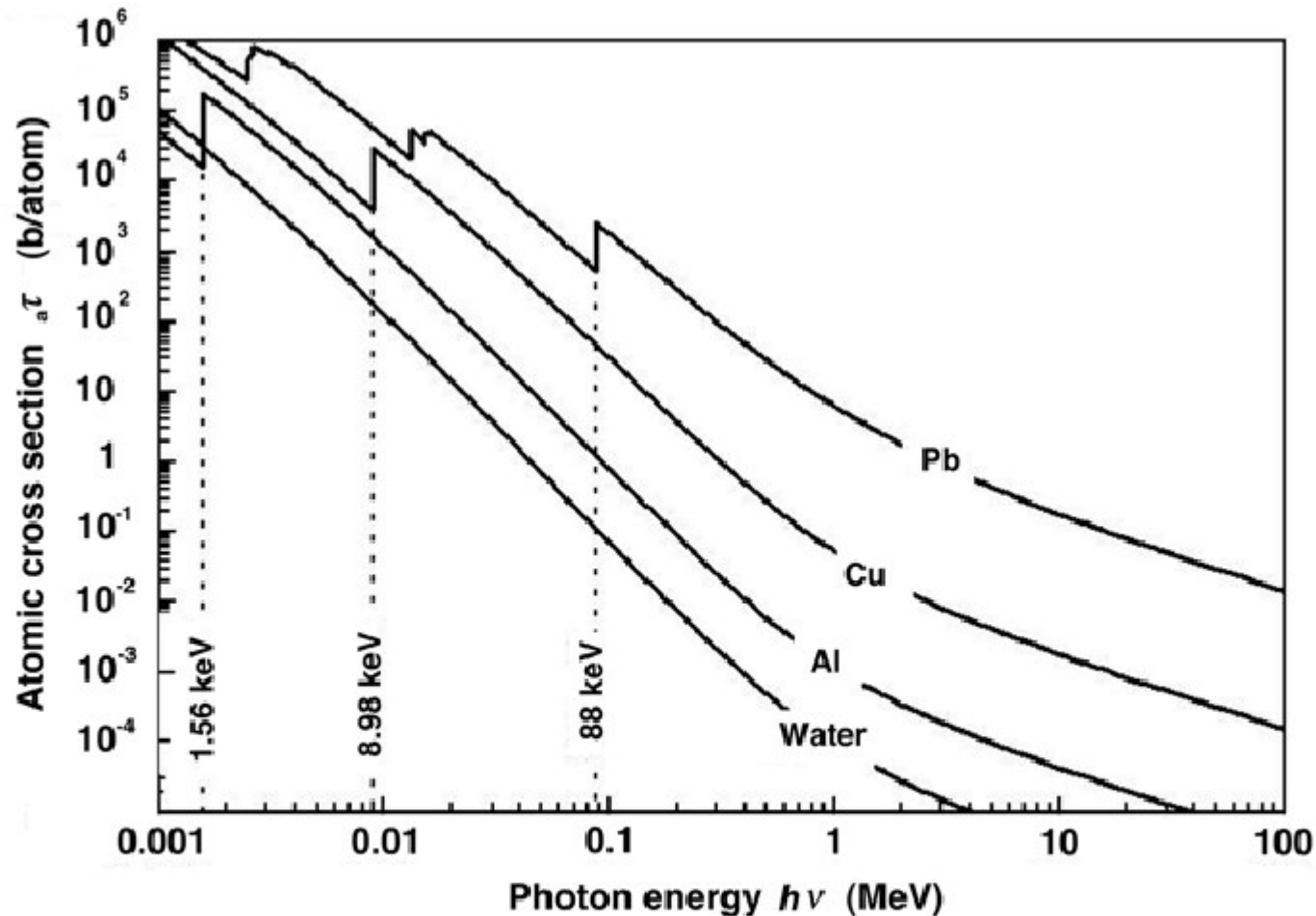


Fig. 7.23. Photoelectric atomic cross section σ_a against photon energy $h\nu$ for various absorbers. Energies of K-absorption edges are also indicated. Data are from the NIST

Creación de pares

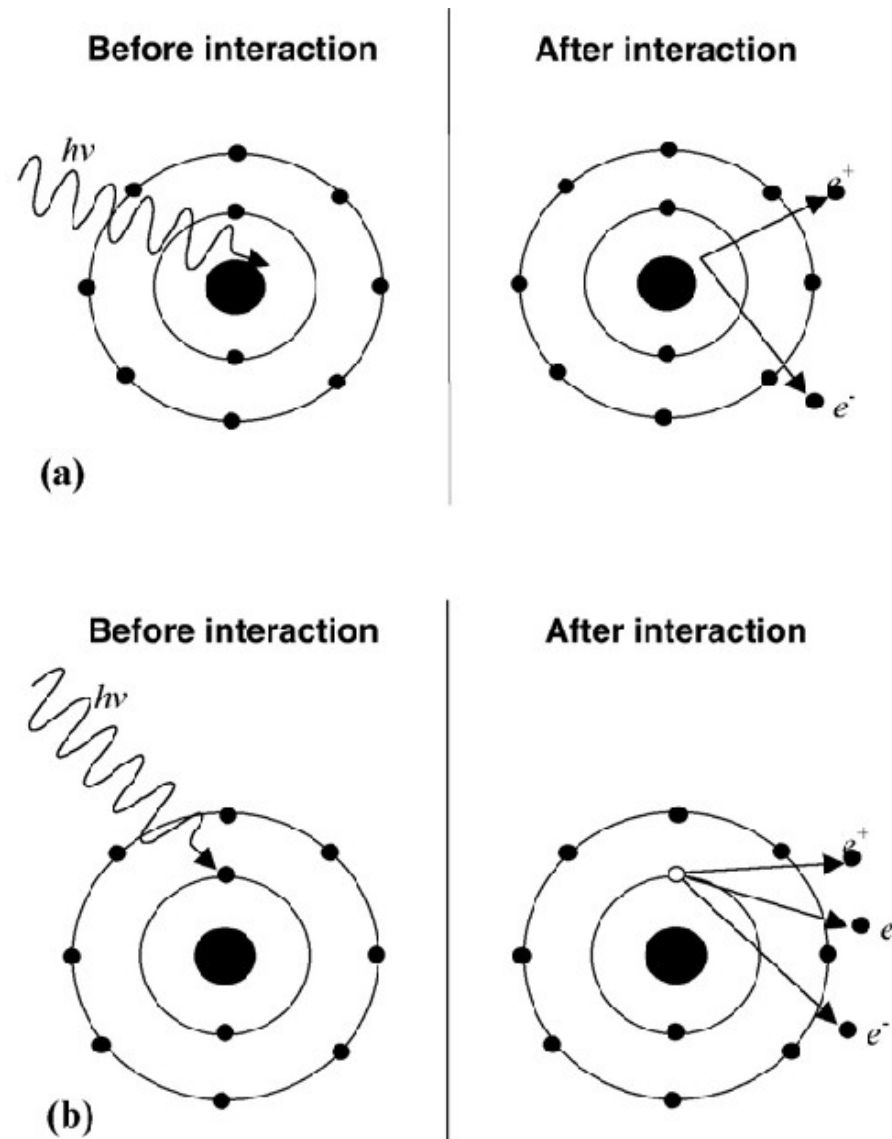


Fig. 7.26. Schematic representation of pair production (a) in the Coulomb field of a nucleus and (b) triplet production (in the Coulomb field of an orbital electron)

Secciones eficaces pares y tripletes

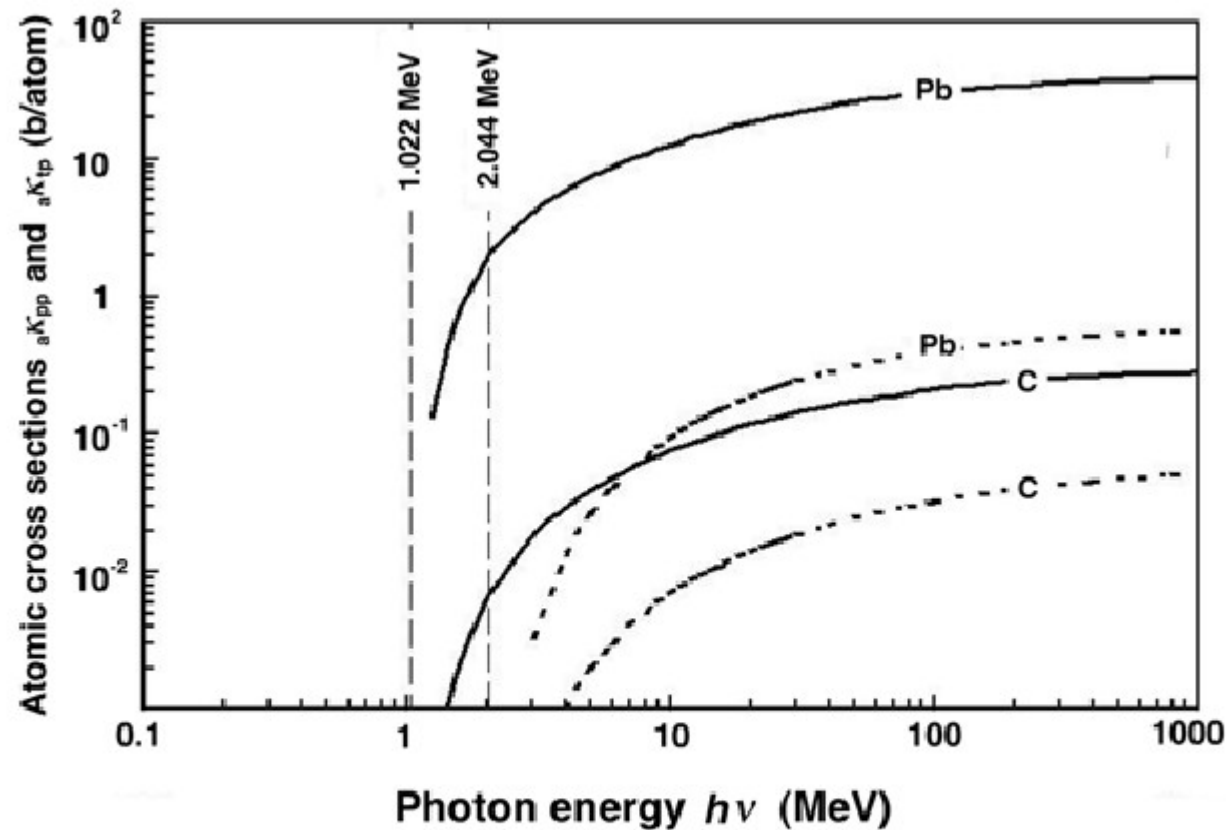


Fig. 7.27. Atomic cross sections for pair production ${}_a\kappa_{pp}$ (*solid curves*) and for triplet production ${}_a\kappa_{tp}$ (*dotted curves*) against incident photon energy $h\nu$ for carbon and lead. Data are from the NIST

Secciones eficaces pares+tripletes

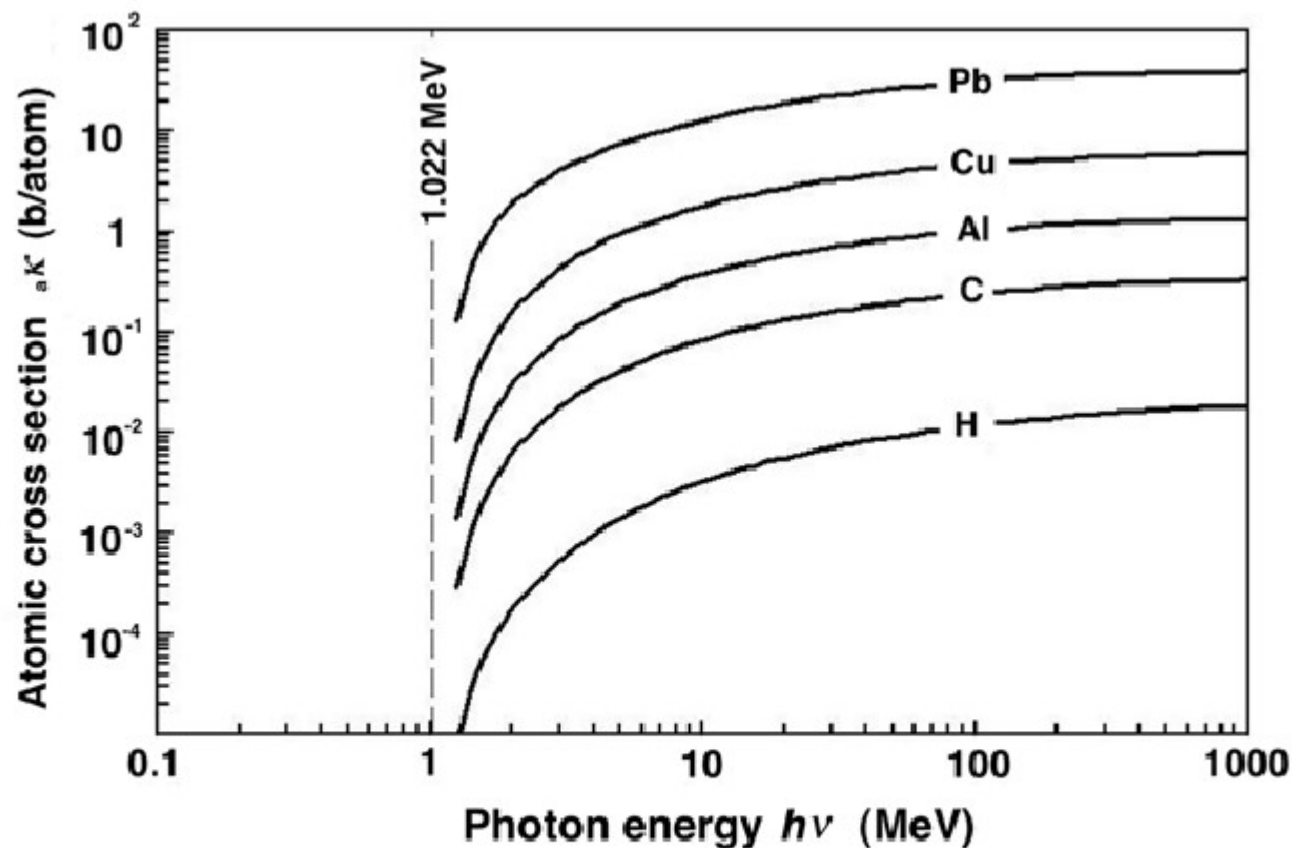
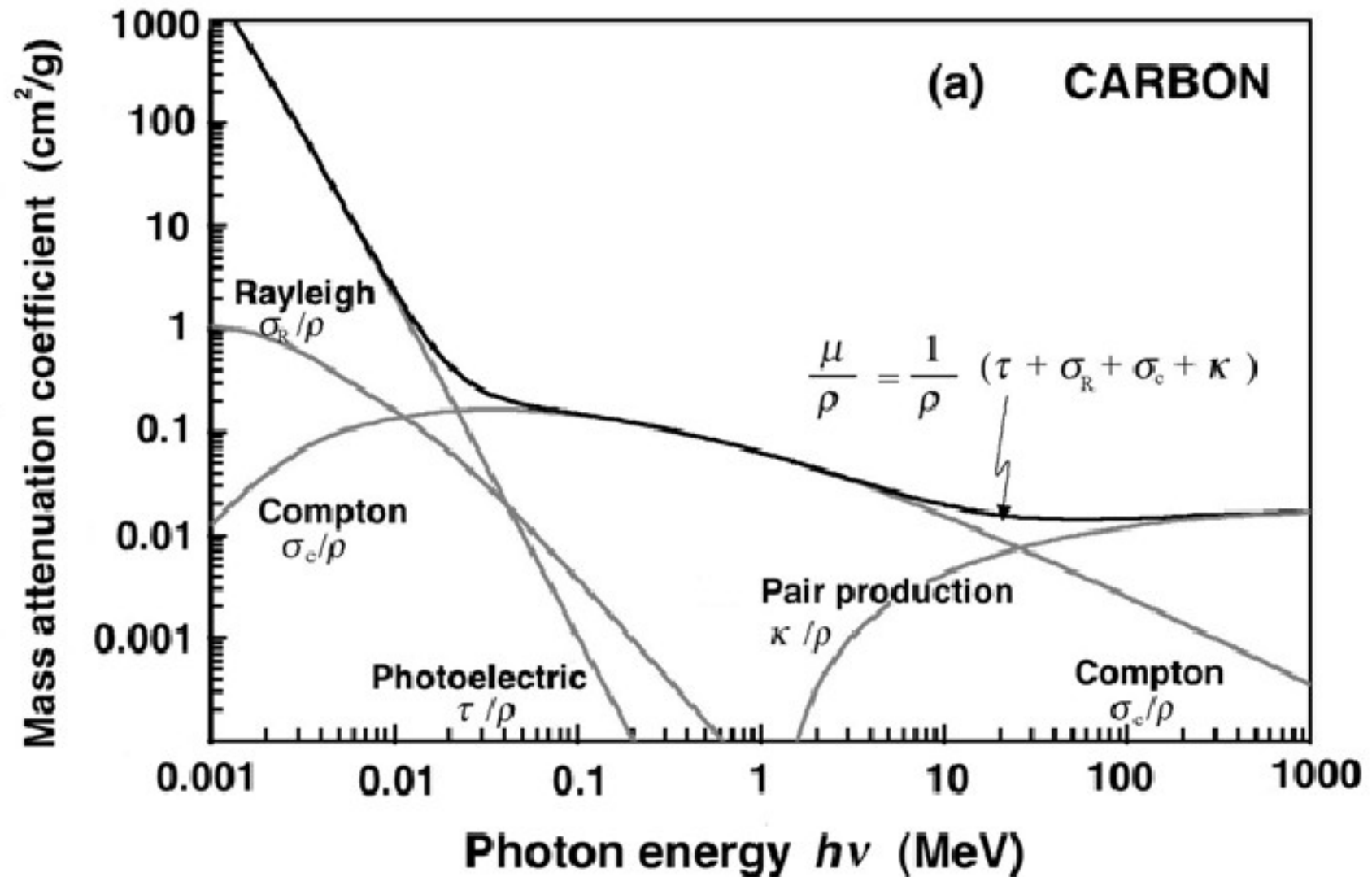
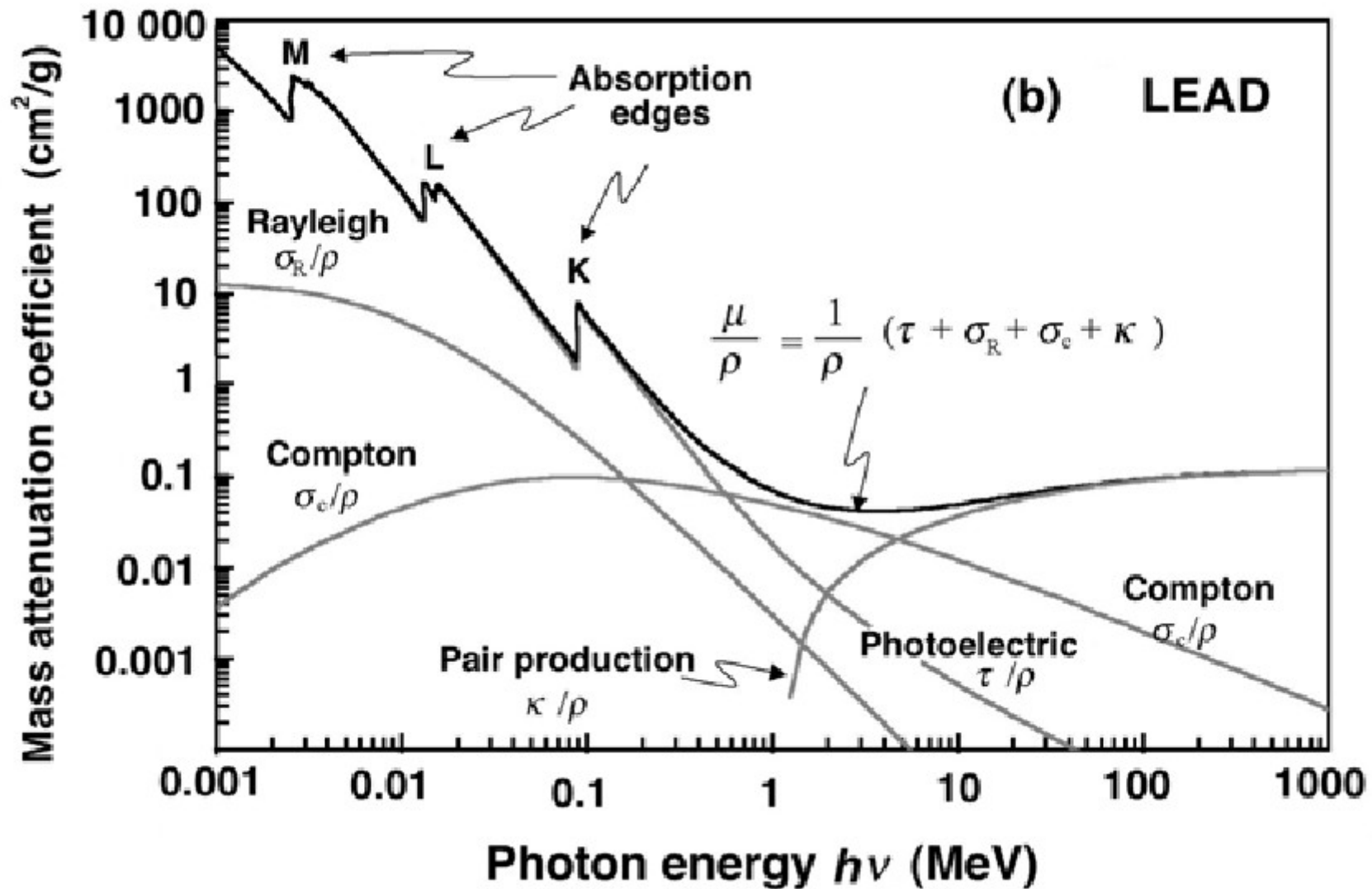


Fig. 7.28. Atomic cross section for pair production (including triplet production) $_{a}\kappa$ against incident photon energy $h\nu$ for various absorbers in the range from hydrogen to lead. Data are from the NIST

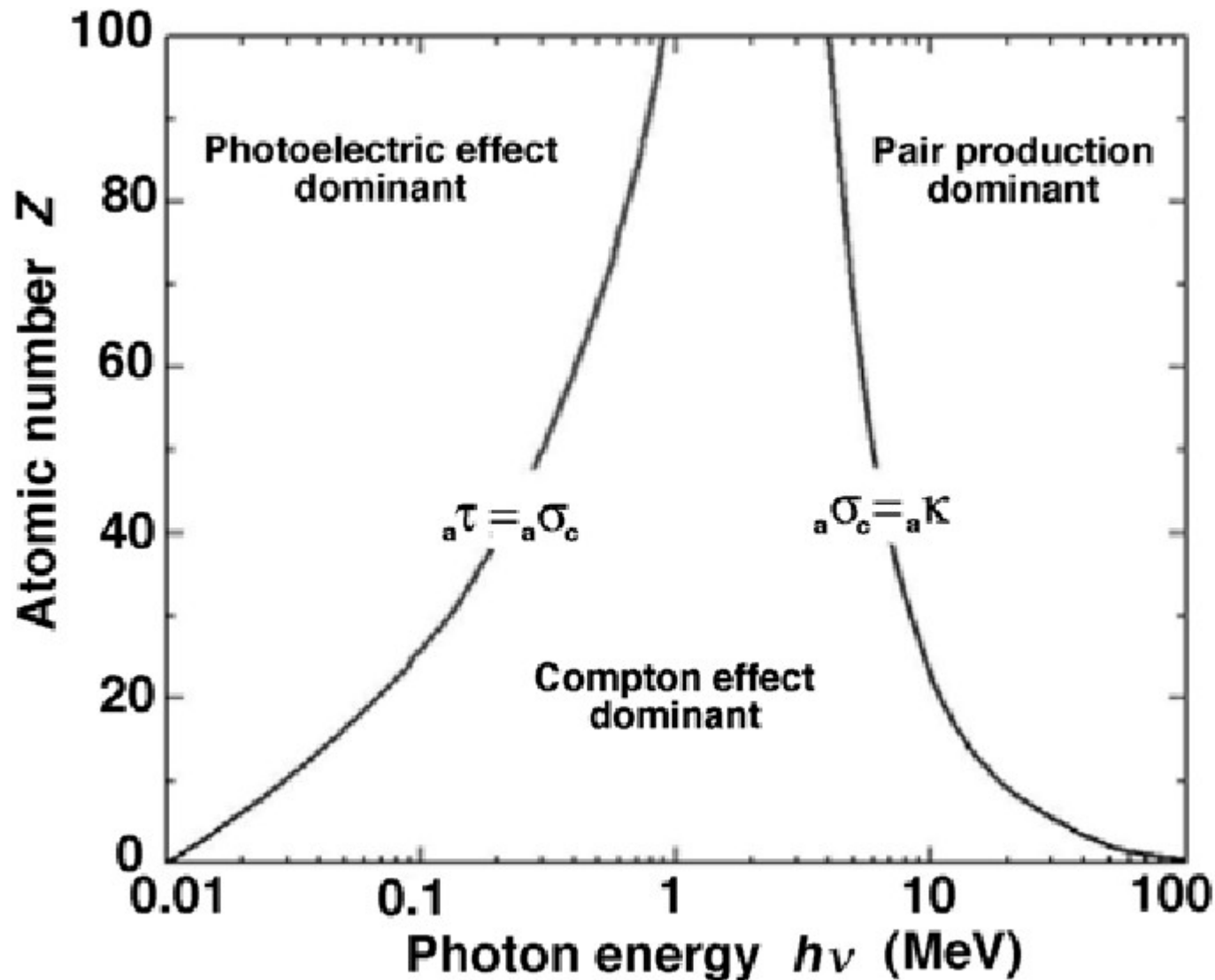
Coeficiente de atenuación



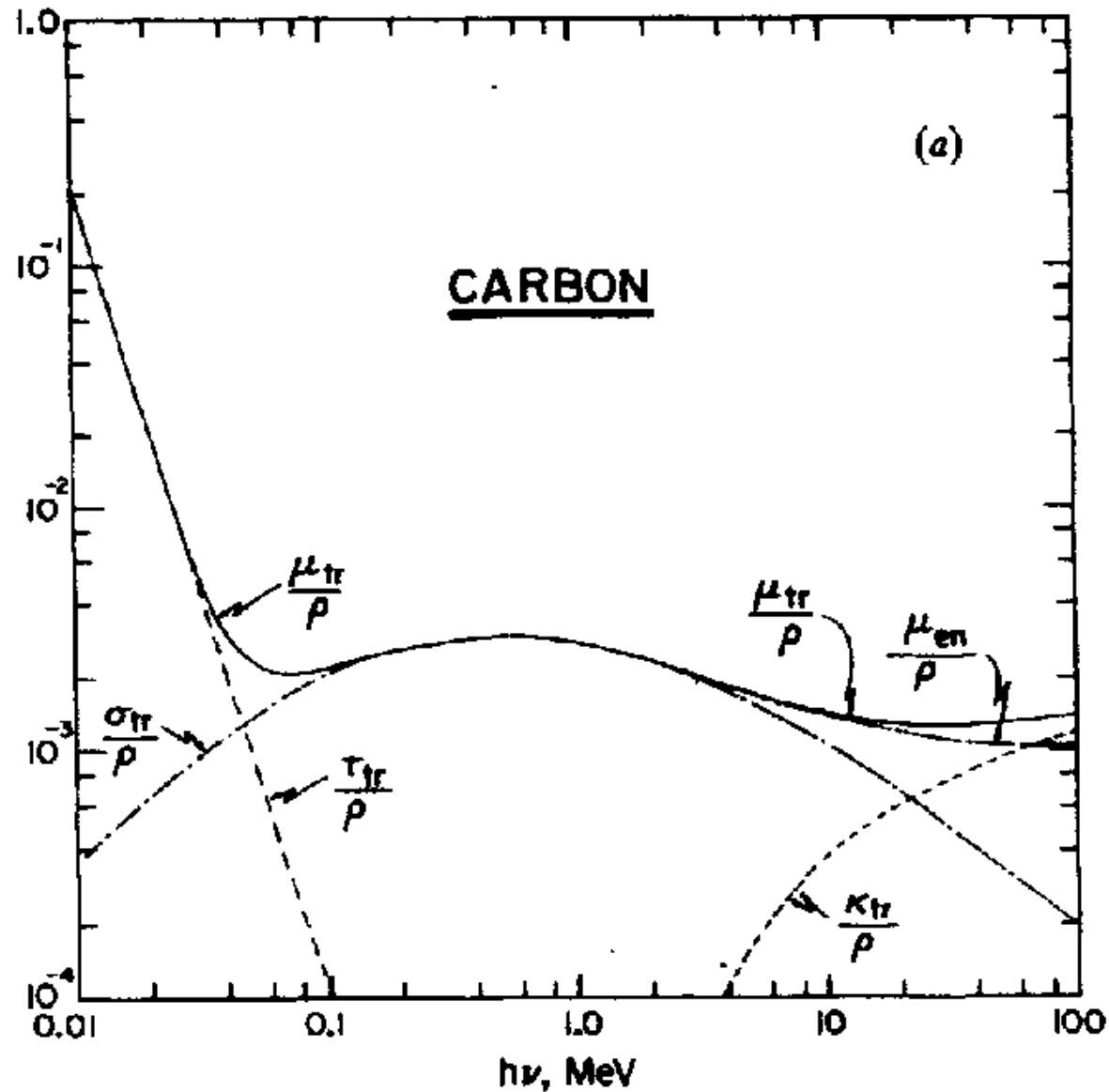
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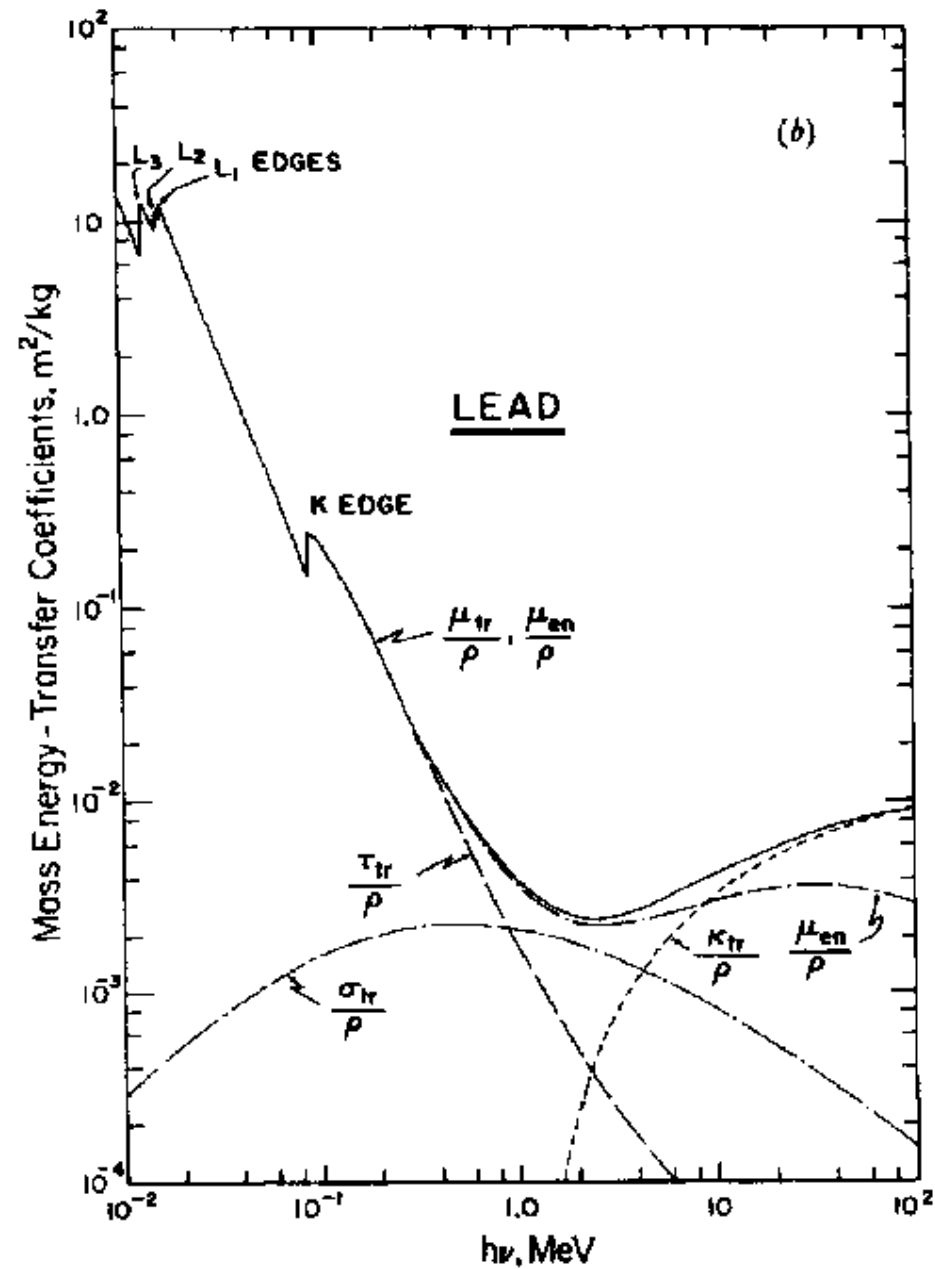
Comparación de efectos



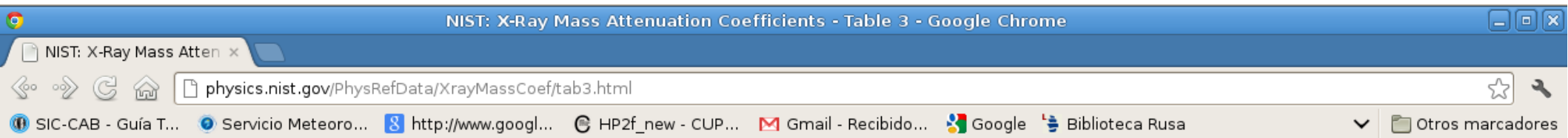
Coeficiente de transferencia de energía



Coeficiente de transferencia de energía



http://physics.nist.gov/PhysRefData/XrayMassCoef/tab3.html



X-Ray Mass Attenuation Coefficients

Table 3. Values of the mass attenuation coefficient, μ/ρ , and the mass energy-absorption coefficient, μ_{en}/ρ , as a function of photon energy, for elemental media. Atomic absorption edges are indicated by the shell designation.

Z	Element	Z	Element	Z	Element	Z	Element
1	H Hydrogen	24	Cr Chromium	47	Ag Silver	70	Yb Ytterbium
2	He Helium	25	Mn Manganese	48	Cd Cadmium	71	Lu Lutetium
3	Li Lithium	26	Fe Iron	49	In Indium	72	Hf Hafnium
4	Be Beryllium	27	Co Cobalt	50	Sn Tin	73	Ta Tantalum
5	B Boron	28	Ni Nickel	51	Sb Antimony	74	W Tungsten
6	C Carbon Graphite	29	Cu Copper	52	Te Tellurium	75	Re Rhenium
7	N Nitrogen	30	Zn Zinc	53	I Iodine	76	Os Osmium
8	O Oxygen	31	Ga Gallium	54	Xe Xenon	77	Ir Iridium
9	F Fluorine	32	Ge Germanium	55	Cs Cesium	78	Pt Platinum
10	Ne Neon	33	As Arsenic	56	Ba Barium	79	Au Gold
11	Na Sodium	34	Se Selenium	57	La Lanthanum	80	Hg Mercury
12	Mg Magnesium	35	Br Bromine	58	Ce Cerium	81	Tl Thallium
13	Al Aluminum	36	Kr Krypton	59	Pr Praseodymium	82	Pb Lead
14	Si Silicon	37	Rb Rubidium	60	Nd Neodymium	83	Bi Bismuth
15	P Phosphorus	38	Sr Strontium	61	Pm Promethium	84	Po Polonium
16	S Sulfur	39	Y Yttrium	62	Sm Samarium	85	At Astatine
17	Cl Chlorine	40	Zr Zirconium	63	Eu Europium	86	Rn Radon
18	Ar Argon	41	Nb Niobium	64	Gd Gadolinium	87	Fr Francium
19	K Potassium	42	Mo Molybdenum	65	Tb Terbium	88	Ra Radium
20	Ca Calcium	43	Tc Technetium	66	Dy Dysprosium	89	Ac Actinium
21	Sc Scandium	44	Ru Ruthenium	67	Ho Holmium	90	Th Thorium
22	Ti Titanium	45	Rh Rhodium	68	Er Erbium	91	Pa Protactinium
23	V Vanadium	46	Pd Palladium	69	Tm Thulium	92	U Uranium

<http://physics.nist.gov/PhysRefData/XrayMassCoef/tab3.html>

