

## An energy calculator

Input	Output
ZPROJ = <input type="text" value="92"/>	***** KINEMATICS *****
EKIN(MEV/U) = <input type="text" value="41.035"/>	ZPROJ.....:= 92.
THETA = <input type="text" value="35"/>	THETA.....:= 35.
<input type="button" value="Calculate"/>	EKIN(MeV/U).....:= 41.035
	KINETIC ELECTRON ENERGY (keV) ..:= 22.5109914
	V (A.U.).....:= 39.3861694
	BETA.....:= 0.287414777
	GAMMA.....:= 1.04405253
	DOPPLER SHIFT.....:= 1.25275416
	SOLID ANGLE TR LAB/CM.....:= 1.569393
	EMISSION ANGLE IN EMITTER-FRAME:= 45.9347356
	***** ENERGIES IN KEV *****
	ETA... (v/Zp)^2.....:= 0.183278632
	ETA.. (ENERGY).....:= 0.170175306
	EK(BIND).....:= 132.281108
	EL(BIND).....:= 29.6500996
	EM(BIND).....:= 12.9598529
	K-ALPHA (LAB.).....:= 128.571423
	K-BETA (LAB.).....:= 149.480199
	L-ALPHA (LAB.).....:= 20.9087761
	KINETIC ELEC. ENERGY (LAB.)....:= 28.2007382
	E K-REC (LAB).....:= 193.916447
	E L-REC (LAB).....:= 65.345024
	E M-REC (LAB).....:= 44.4362479