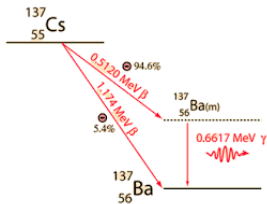
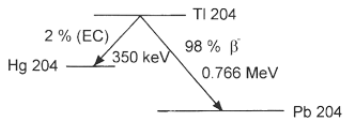


Decaimento β



(a) Esquema Decaimento $^{137}_{55}\text{Cs}$



(b) Esquema Decaimento $^{204}_{81}\text{Tl}$

Electrões de conversão

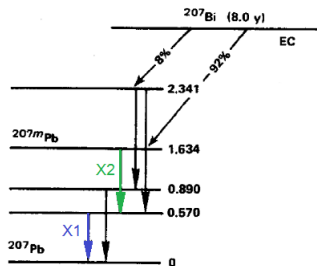
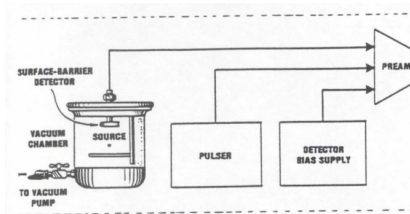


Figura : Esquema Decaimento $^{207}_{83}\text{Bi}$

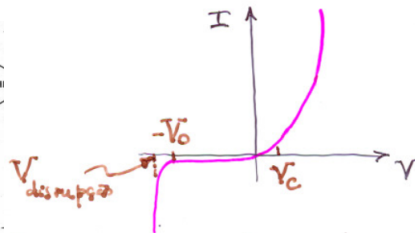
$$E_{e^{-}} = E_X - E_{L_j} \quad (2)$$

Montagem

Detector semiconductor de barreira de superfície



(a) Esquema da Montagem

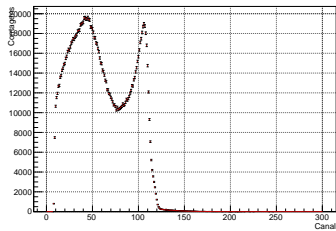


(b) Característica Tensão-Corrente de uma junção PN

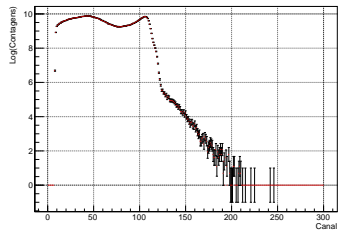
Espectro de $^{137}_{55}\text{Cs}$

Calibração

Espectro Linear Cs



Espectro Logaritmico Cs



Calibração canal-tensão

Calibração

$$\bar{c} = \frac{\sum_{n=1}^n c_i n_i}{A} \quad (3)$$

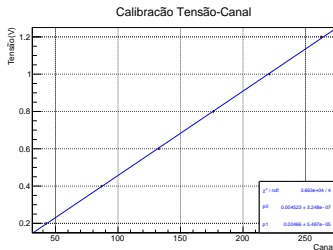
$$A = \sum_{n=1}^n n_i \quad (4)$$

$$\sigma_{\bar{c}} = \frac{\sqrt{\sum_{n=1}^n (c_i - \bar{c})^2 \cdot n_i}}{A} \quad (5)$$

Calibração canal-tensão

Calibração

Tensão(V)	Canal	Contagens	Canal Médio	Contagens Totais
0.2	41	106	42.54 ± 0.01	2429 ± 10
	42	1028		
	43	1180		
	44	113		
	45	1		
0.4	46	1	86.88 ± 0.01	2427 ± 3
	85	12		
	86	604		
	87	1477		
	88	328		
0.6	89	6	132.79 ± 0.01	2427 ± 6
	131	40		
	132	699		
	133	1424		
	134	260		
0.8	135	4	176.23 ± 0.01	2428 ± 2
	174	6		
	175	224		
	176	1434		
	177	735		
1	178	29	221.26 ± 0.01	2428 ± 1
	219	2		
	220	229		
	221	1368		
	222	791		
1.2	223	38	262.49 ± 0.01	2427 ± 2
	260	33		
	261	95		
	262	1054		
	263	1137		
	264	108		



Espectro de $^{204}_{81}\text{Tl}$

Endpoint de $^{204}_{81}\text{Tl}$

Ajuste de Kurie

Endpoint de $^{204}_{81}\text{Tl}$

Ajuste de Kurie

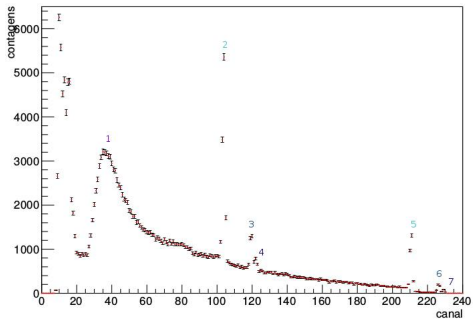
Endpoint de $^{204}_{81}\text{Tl}$

Ajuste de Kurie

Endpoint de $^{204}_{81}\text{Tl}$

Estudo do espectro do $^{207}_{83}\text{Bi}$

Espectro linear Bi



Regradação da calibração

Picos de conversão interna

Rácios entre áreas dos picos de conversão interna