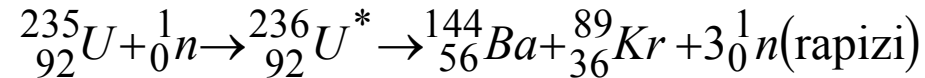


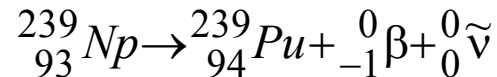
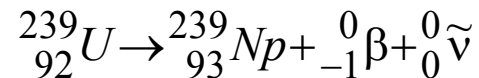
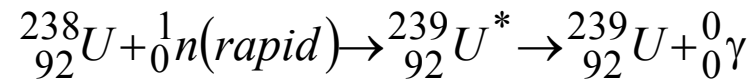


# Accidentul de la Cernobil

*Reacție de fisiune cu material consumabil – state perdante in cel de-al doile razboi mondial.*

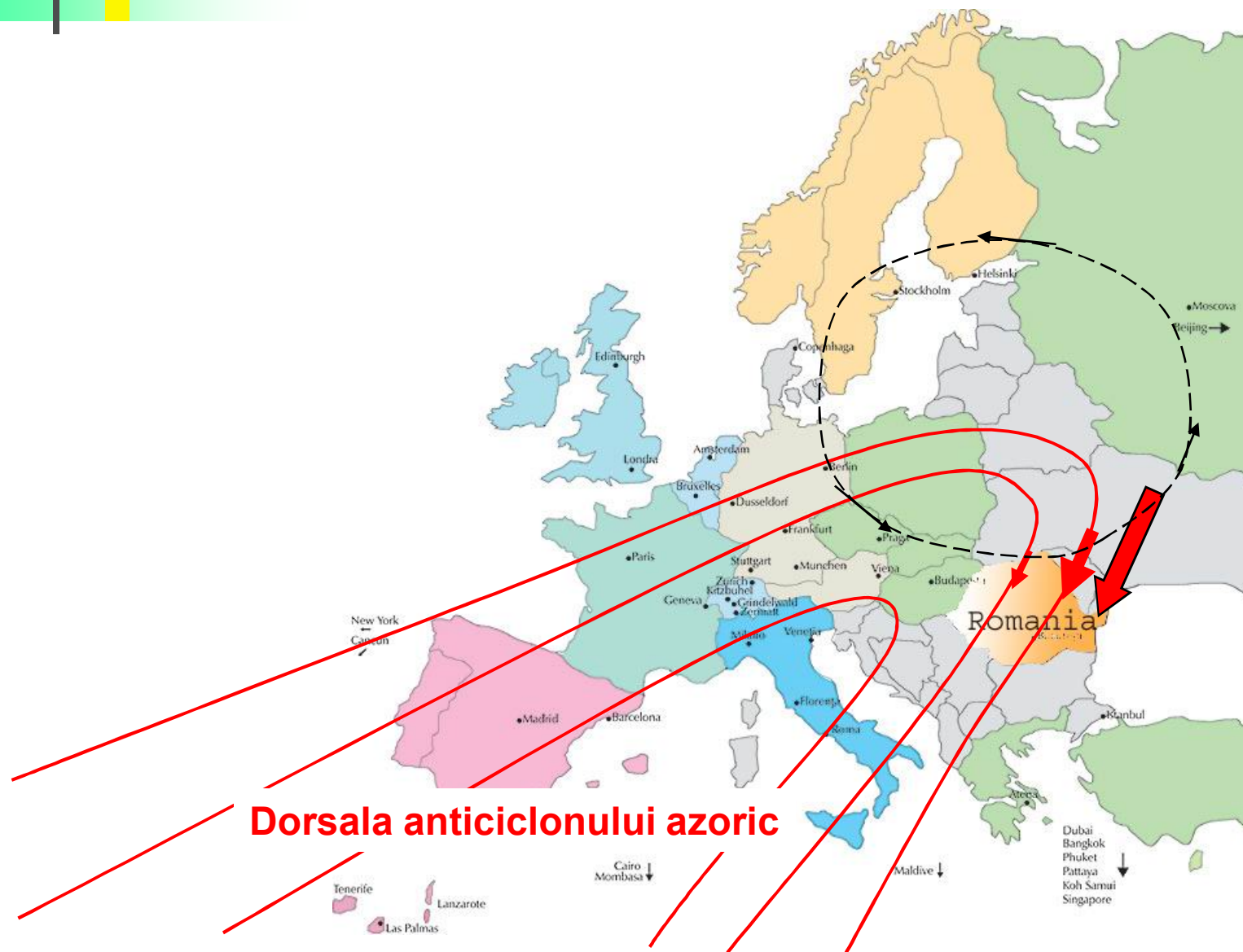


*Reacție cu combustibil regenerabil - state castigatoare in cel de-al dpilea razboi mondial*

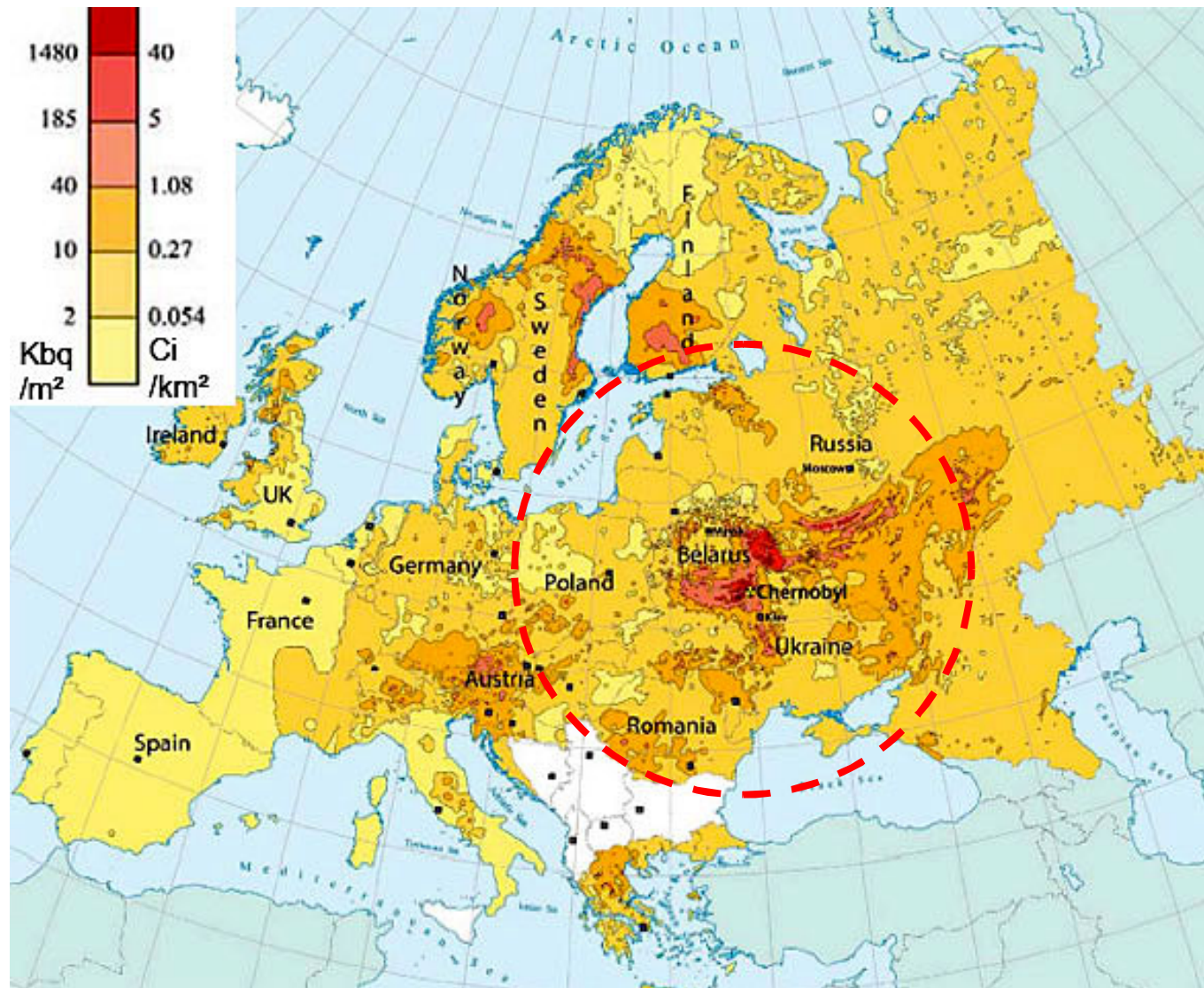


## Comentarii!

# Circulatia atmosferica retrograda in perioada de dupa accident



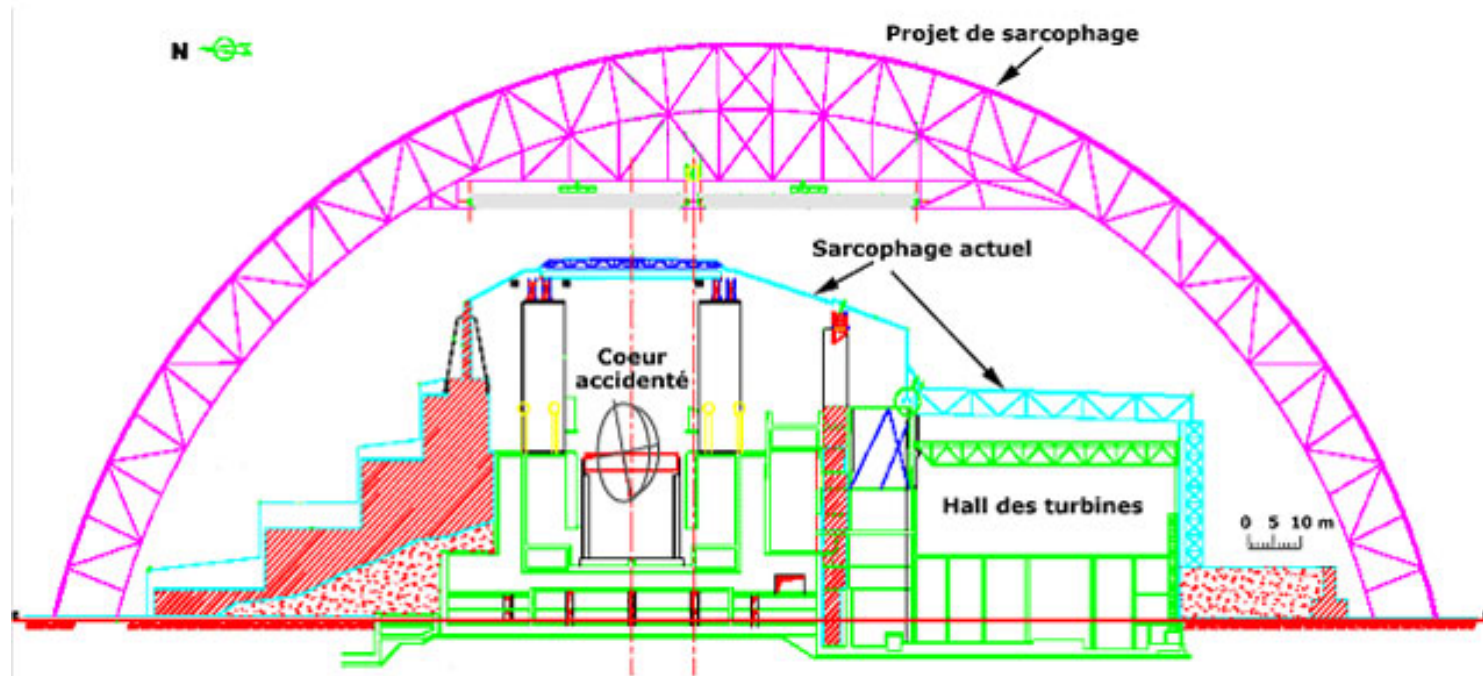
# Contaminarea solului cu Cesium 137



## Orasul fantoma Pripiat (cativa kilometri ce Cernobil)



# Sarcofagul - 2010



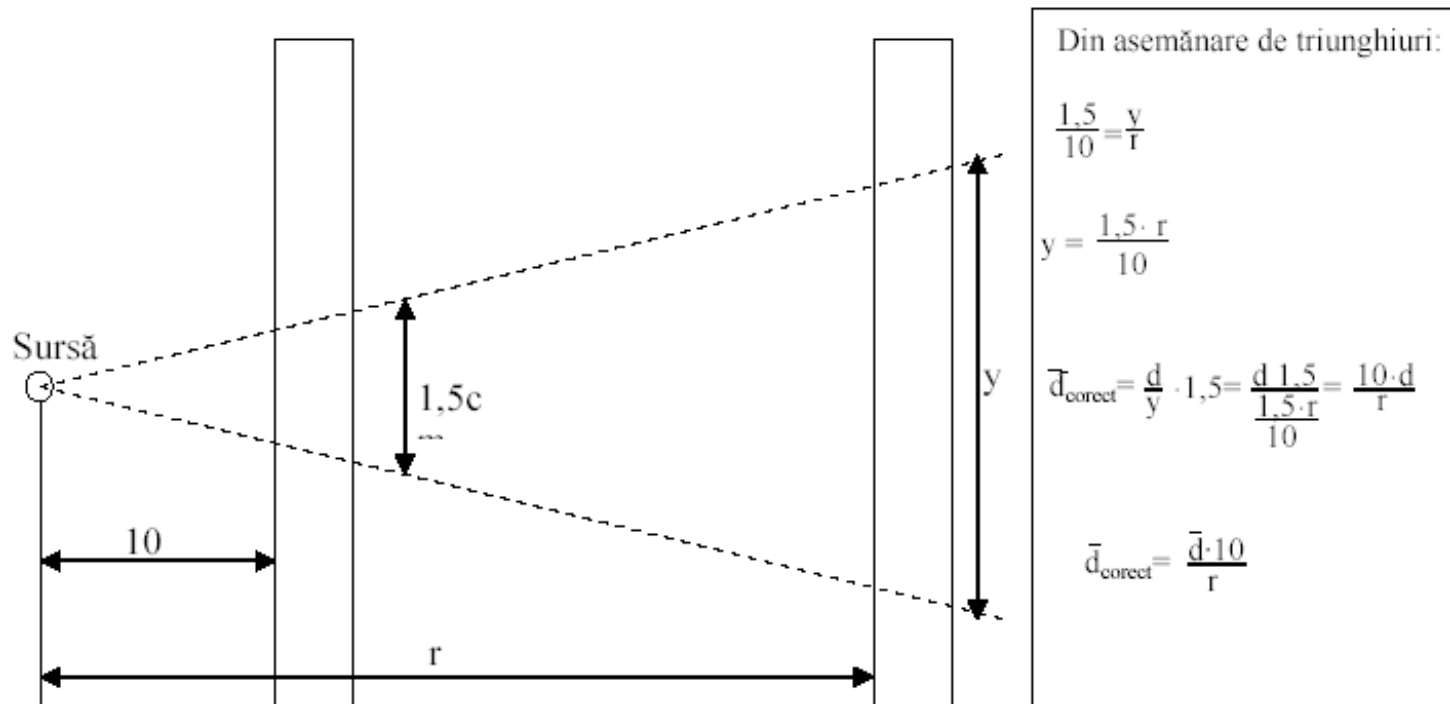
# Masurarea debitului dozei

Date: *Mitu Iani-Octavian*

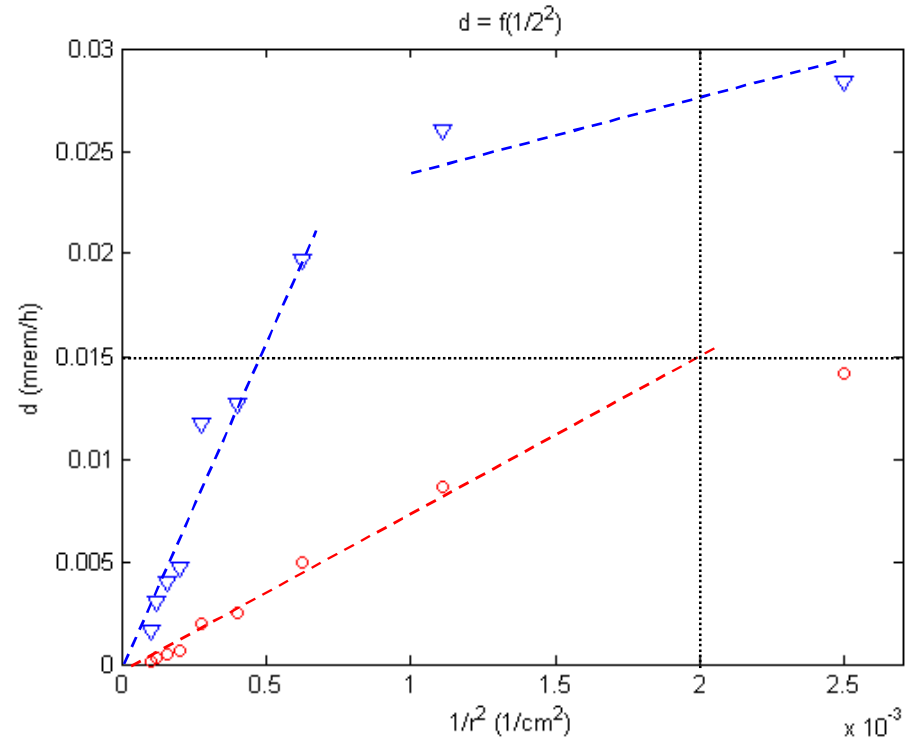
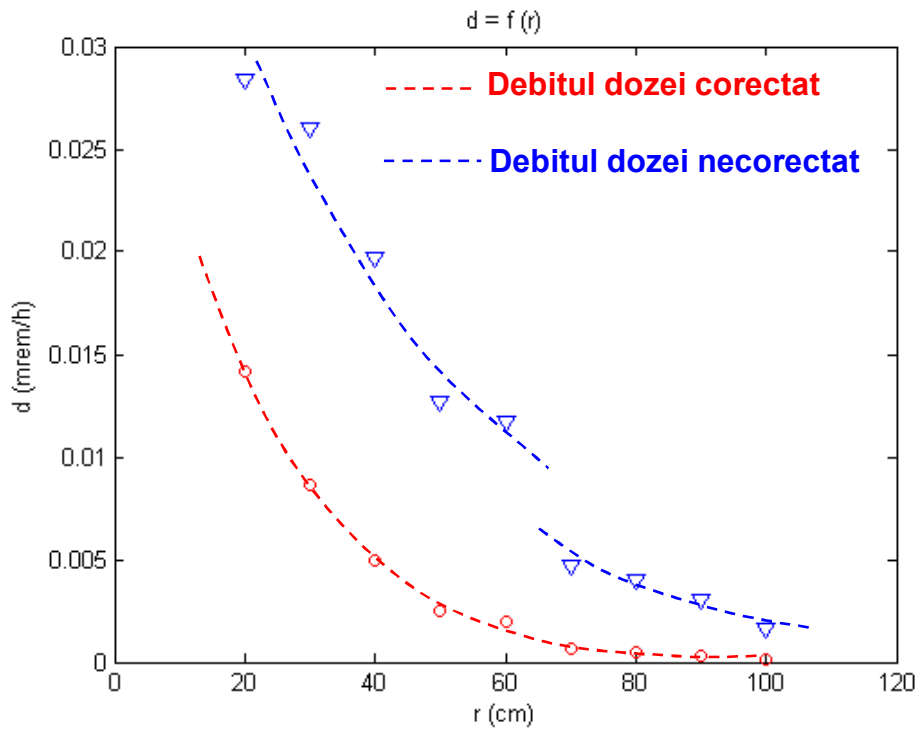
r: [20 30 40 50 60 70 80 90 100] (cm)

d: [0.0284 0.026 0.0197 0.0127 0.01170 0.0047 0.004 0.003 0.0016] (mrem/h)

d<sub>cor</sub>: [0.0142 0.0086 0.004925 0.00254 0.00195 0.00063 0.0005 0.00033 0.00016]

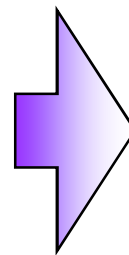


# Calculul activitatii din masurari de debit al dozei



Date: Mitu Iani-Octavian

$$m = \frac{\Delta(d)}{\Delta\left(\frac{1}{r^2}\right)} = \frac{0.015}{2 \times 10^{-3}} = 7.5 \text{ mrem} \cdot \text{cm}^2 / \text{h}$$

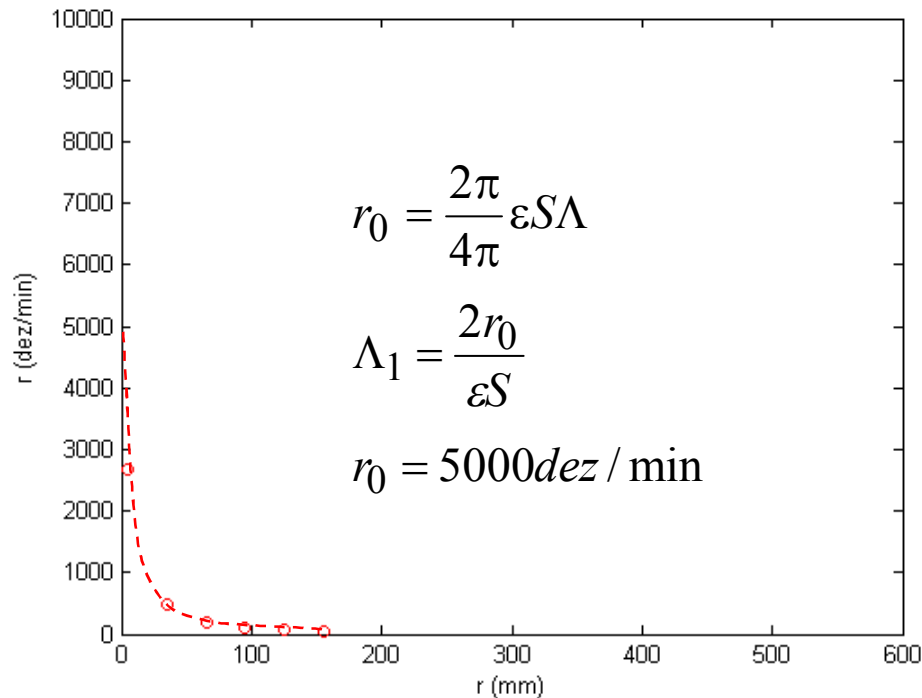


$$\Lambda = \frac{m}{\Gamma} = \frac{7.5 \text{ mrem} \cdot \text{cm}^2 / \text{h}}{3490 \text{ mrem} \cdot \text{cm}^2 / \text{mCi} \cdot \text{h}} = 2.149 \text{ } \mu\text{Ci}$$

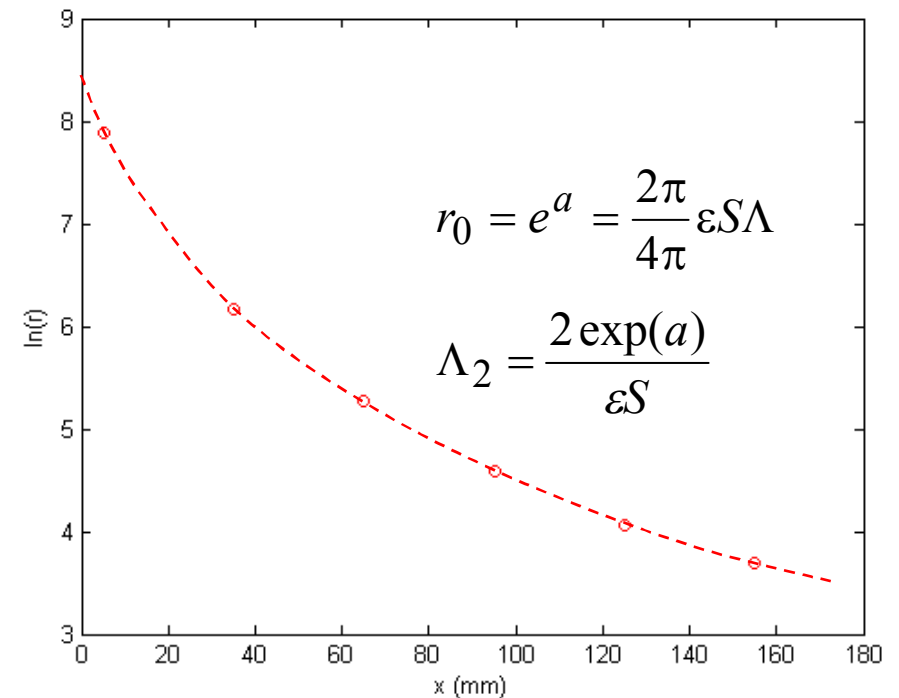
# Metoda unghiului solid cunoscut

Date: Negoita C, Negoita A, Puscuta G, Chirita L.

$x = [5 \quad 35 \quad 65 \quad 95 \quad 125 \quad 155] \text{ (mm)}$   
 $r = [2671 \quad 479 \quad 197 \quad 97 \quad 59 \quad 40] \text{ (dez/min)}$   
 $\ln r = [7.89 \quad 6.17 \quad 5.28 \quad 4.58 \quad 4.07 \quad 3.69]$   
 $\omega/4\pi = [8.11095 \quad 0.10966 \quad 0.01827 \quad 0.00594 \quad 0.002084 \quad 0.001379]$   
 $\ln x = \log(x);$



$$\Lambda_1 = \frac{2 \cdot 5000 \text{ dez / min}}{0.2 \cdot 2} = 417 \text{ dez / s} = 11.27 \text{ nCi}$$



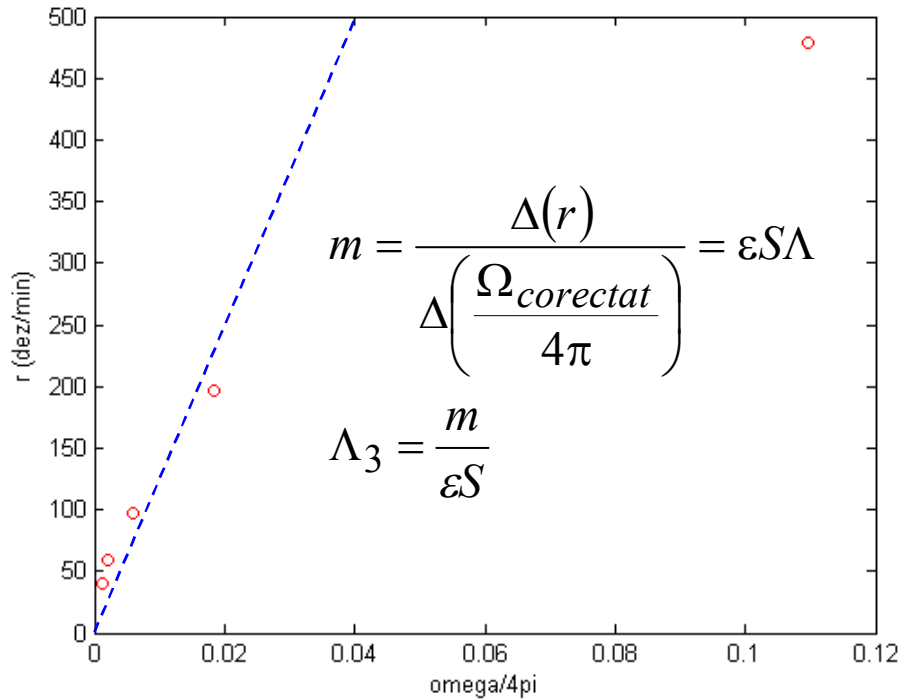
$$\Lambda_2 = \frac{2 \exp(8.5)}{0.2 \cdot 2} = 410 \text{ dez / s} = 11.08 \text{ nCi}$$



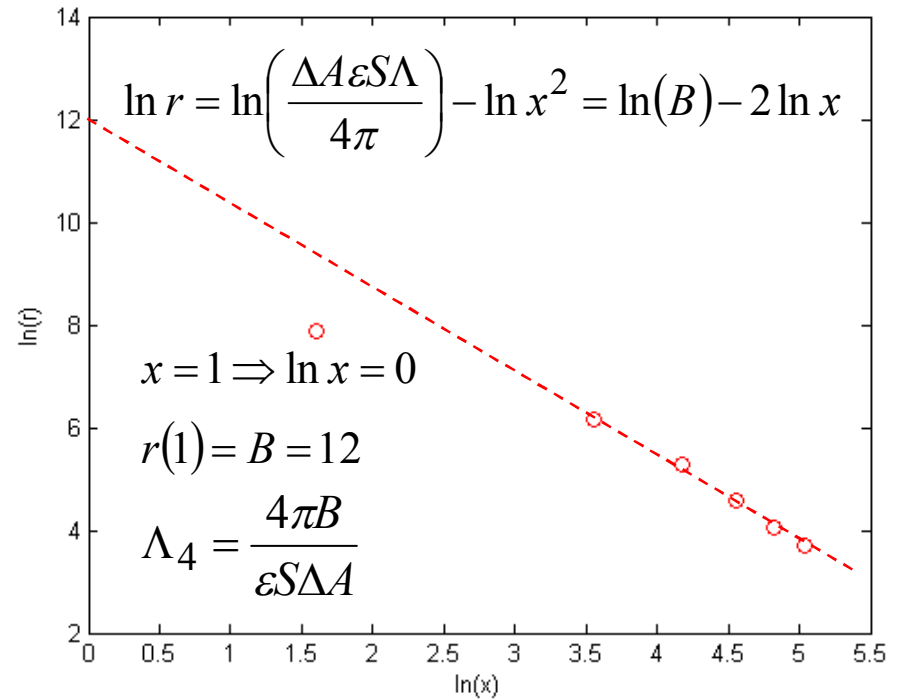
# Metoda unghiului solid cunoscut

Date: Negoita C, Negoita A, Puscuta G, Chirita L.

$$r = \frac{1}{4\pi} \cdot \frac{\Delta A}{x^2} \varepsilon S \Lambda$$



$$\Lambda_3 = \frac{500/0.04}{0.2 \cdot 2} = 521 \text{dez} / s = 14.08 \text{ nCi}$$



$$\Lambda_4 = 458 \text{dez} / s = 12.36 \text{ nCi}$$