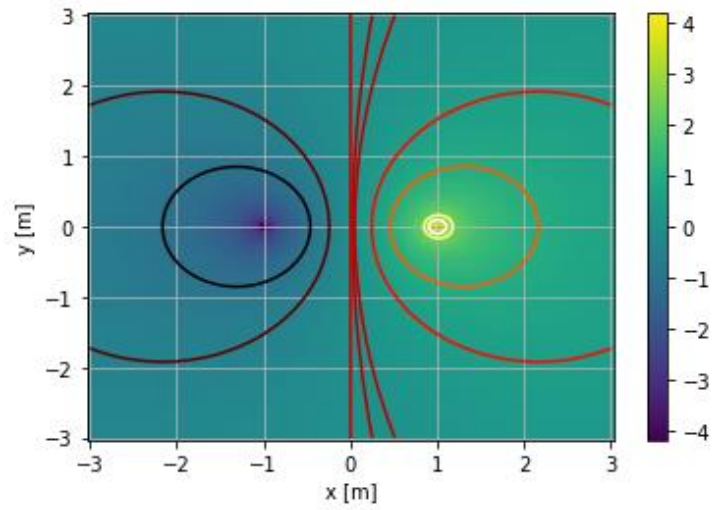


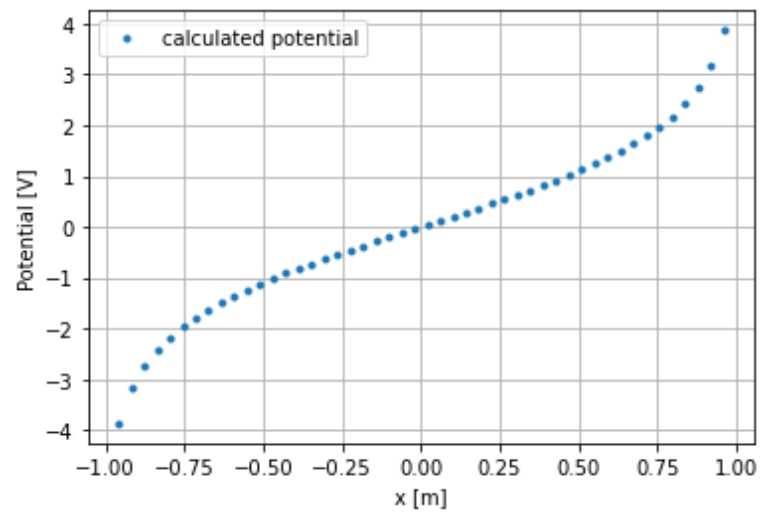
פתרון תרגיל פייתון

פוטנציאל חשמלי:

סעיפים 5-7:



סעיף 8:

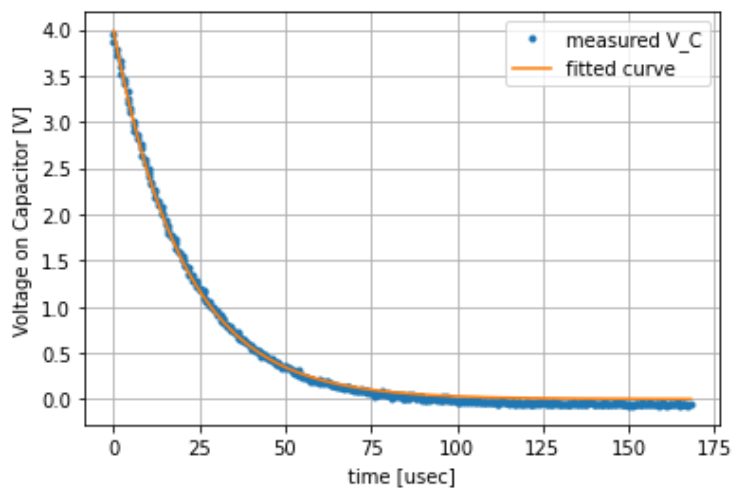


קבל:

C_theoretical = 4.5e-10 F :2 סעיף

tau_theoretical = 1.73e-5 sec :3 סעיף

:7 סעיף



:11 סעיף

V0_fit = 3.99 V

tau_fit = 2.044e-5 sec

:12 סעיף

V0_fit_err = 0.01 V

tau_fit_err = 8e-8 sec

:15 סעיף

Chi2 = 267.5

DoF = 418

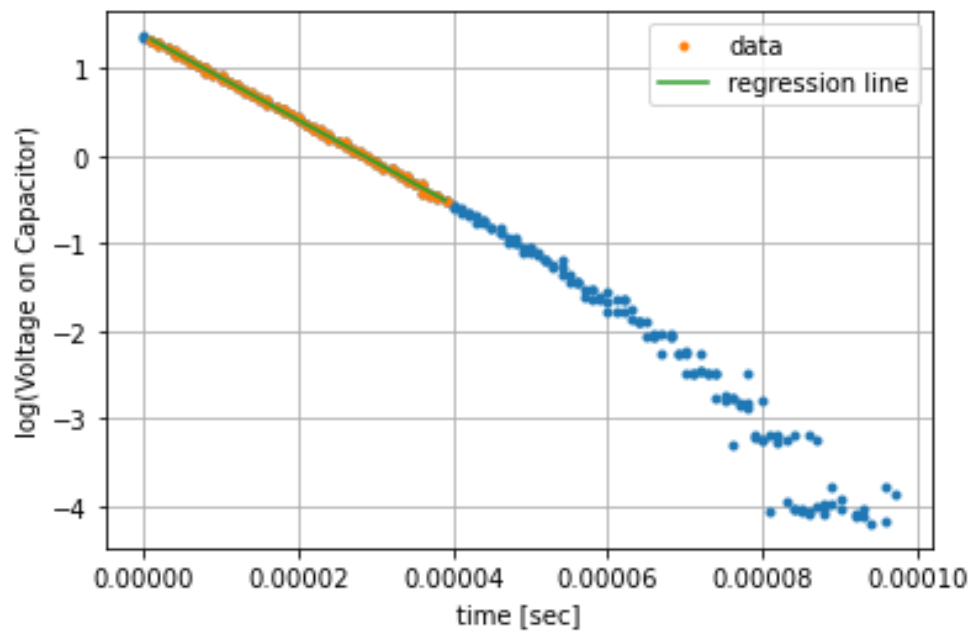
:16 סעיף

p-value = ~1

:17 סעיף

R_squared_of_fit = 0.998

סעיף 18:



סעיף 22:

$$V0_reg = 3.98 \text{ V}$$

$$\tau_{reg} = 2.067e-5 \text{ sec}$$

סעיף 23:

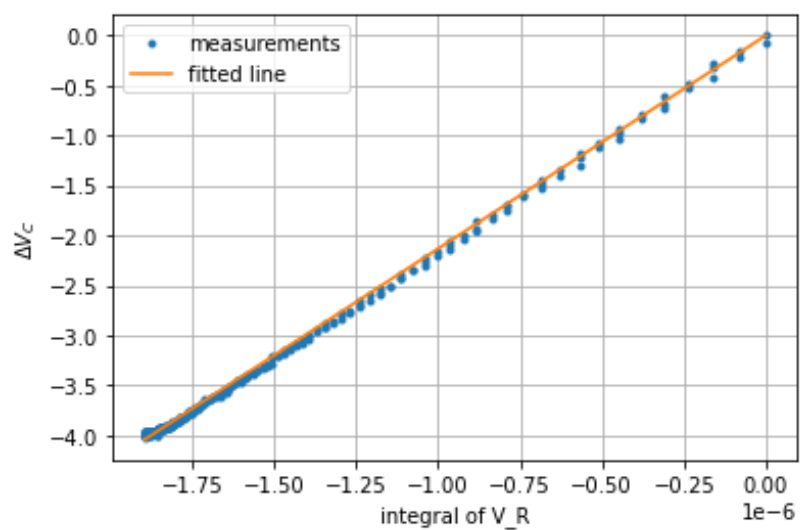
$$V0_reg_err = 0.02 \text{ V}$$

$$\tau_{reg_err} = 7e-8 \text{ sec}$$

סעיף 24:

$$R_squared_of_reg = 0.999$$

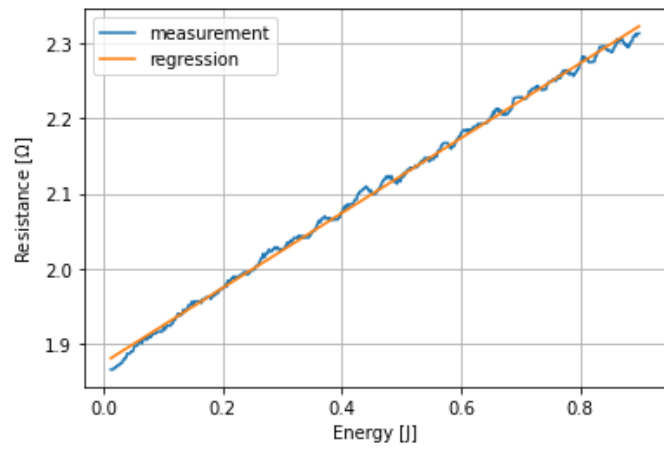
סעיף 27:



$$C_meas = 4.8e-10 \text{ F} \quad \text{סעיף 28}$$

חוק אוהם

סעיף 12:



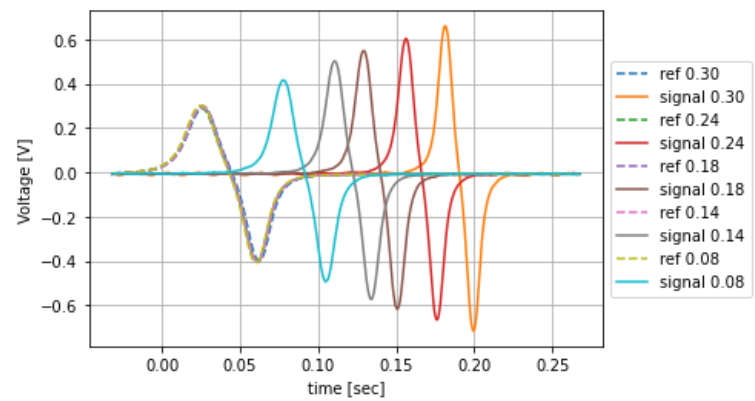
סעיף 14:

$$R_0 = 1.88 \text{ ohm}$$

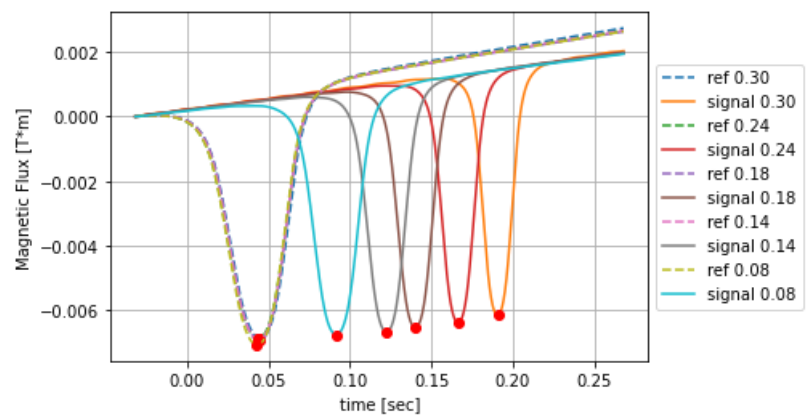
$$\text{Alpha_over_C_heat} = 0.26 \text{ 1/J}$$

השראות:

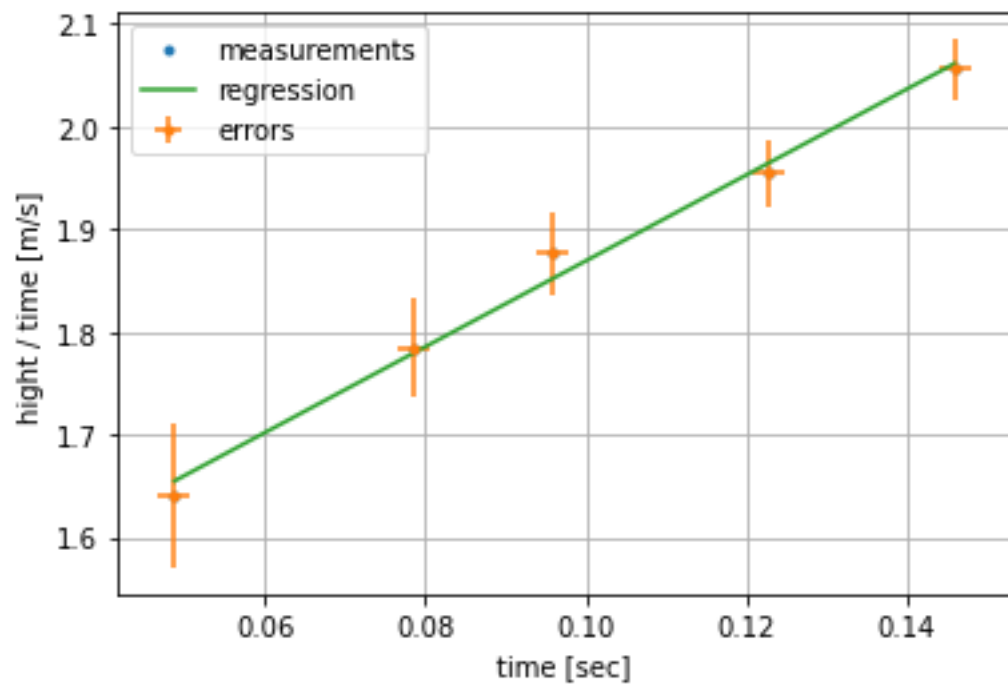
סעיף 5:



סעיף 7:



סעיף 12:



סעיף 14:

$v_0 = 1.45$ m/sec

$a = 8.36$ m/sec²

סעיף 16:

$R_squared_reg = 0.99$

סעיף 17:

$Chi_squared = 0.518$

Dof=3

p-value = 0.915