

Date : / /2024

Lab Report Physique II

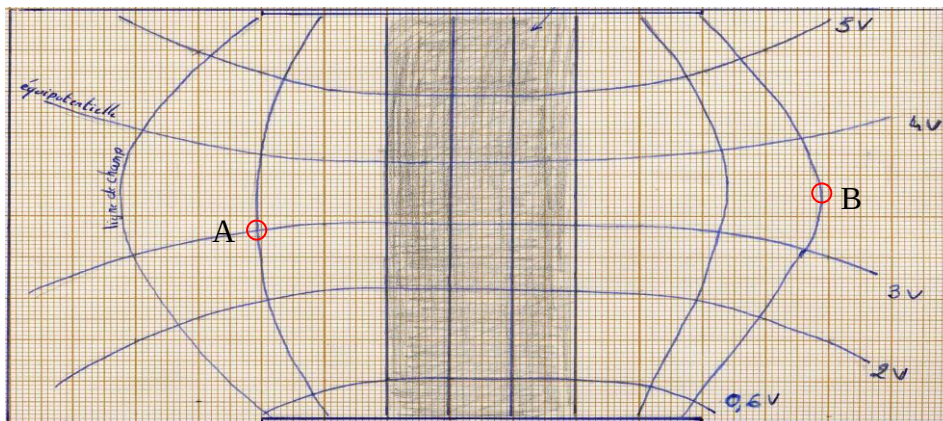
Exprimment N°2: Electric Fields and Electric Potential

Instructor : Groupe : First and last Name : -
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1. Procedure:

A)- First part: potential and field produced by parallel plates electrodes:

- Calculate and represent the E field vector at points A and B.



plot of 2, 3, 4 and 5 volt equipotential lines with field lines

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- Measures Table:

x (cm)	2	4	6	8	10	12	14	16	18	20	24	28
V (volt)	3,0	4,0	5,0	6,0	6,5	7,5	8,2	9,0	9,8	10,5	12,5	14,0

- $V(x)$ plot.
- - The potential variation law V versus x is given by :
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- The field variation law E in all tank base :
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B)- Second Part: Potential and Field Produced by Two Concentric Circular Electrodes:

- Equipotential lines have shape.....

- Table of Results:

x (cm)	1	3	5	7	9	11	13	15
V(volt)	0,0	6,0	8,5	10,0	11,5	12,5	13,2	13,7

- Graphic plot of $V(x)$.
- Plot of 2 to 2V equipotential lines. The electric field is stronger in the region
- The local electric field values $E(r)$ deduction and the Plot graphic of $E(r)$.

$(E(r) = -\Delta V / \Delta x \text{ avec } r = (x_1 + x_2) / 2)$

r (cm)		2	4	6	8	10	12	14	
E(V/cm)		3,0	1,2	0,75	0,7	0 ,5	0,3	0,2	

- The mathematical function that represents the shape of this graph is:
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- Potential variation Law V as a function of r :
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Note :

That is, it for the lab. Put everything back as it was and enjoy your day

