ppic One Electromagnetic Field third section 参考文献

Seminar One

Dylan

XJTU

2019年7月14日





pic One Electromagnetic Field third section 参考文献

Outline

- 1 Topic One
 - Converter Valve
- 2 Electromagnetic Field
 - Maxwell
 - Transmission Line
- 3 third section



- 1 Topic One
- 2 Electromagnetic Field
- 3 third section



Dylan (XJTU) Seminar One 2019年7月14日 3/16

- 1 Topic One
 - Converter Valve

- 2 Electromagnetic Field
 - Maxwell
 - Transmission Line

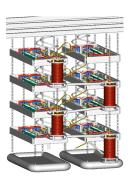
3 third section

Topic One Electromagnetic Field third section 参考文献

Structure¹







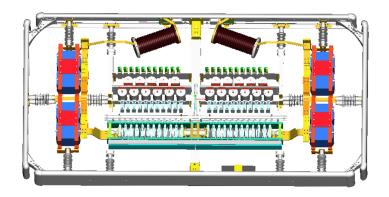
(b) Structure

图: Converter Valve

Dylan (XJTU)

Topic One Electromagnetic Field third section 参考文献

Layer







Dylan (XJTU) Seminar One

Topic One Electromagnetic Field third section 参考文献

Circuit

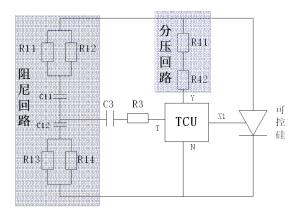


图: Basic Circuit



Dylan (XJTU)

- 1 Topic One
- 2 Electromagnetic Field
- 3 third section



- 1 Topic One
 - Converter Valve

- 2 Electromagnetic Field
 - Maxwell
 - Transmission Line

3 third section

Maxwell Equation^[1]

$$\oint_{I} \vec{H} \cdot dI = \int_{S} \vec{J} \cdot dS + \int_{S} \frac{\partial \vec{D}}{\partial t} \cdot dS$$

$$\oint_{I} \vec{E} \cdot dI = -\int_{S} \frac{\partial \vec{B}}{\partial t} \cdot dS$$

$$\oint_{S} \vec{B} \cdot dS = 0$$

$$\oint_{S} \vec{D} \cdot dS = q$$

关系

$$\vec{D} = \varepsilon \vec{E} \Rightarrow$$
 类似电容的关系 $\vec{B} = \mu \vec{H} \Rightarrow$ 类似电感的关系 $\vec{J} = \gamma \vec{E} \Rightarrow$ 类似电阻的关系

↓□▶ ↓□▶ ↓□▶ ↓□▶ □ ♥)९

10 / 16

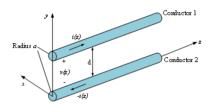
Dylan (XJTU) Seminar One 2019年7月14日

- 1 Topic One
 - Converter Valve

- 2 Electromagnetic Field
 - Maxwell
 - Transmission Line

3 third section

Telegrapher's Equation



$$-\frac{\partial v(z,t)}{\partial z} = R' i(z,t) + L' \frac{\partial i(z,t)}{\partial z} -\frac{\partial i(z,t)}{\partial z} = G' v(z,t) + C' \frac{\partial v(z,t)}{\partial z}$$

Dylan (XJTU) Seminar One 2019年7月14日 12/16

- 1 Topic One
- 2 Electromagnetic Field
- 3 third section



test information^[2]



Dylan (XJTU) Seminar One 2019 年 7 月 14 日

opic One Electromagnetic Field third section 参考文献

Reference

圖 冯慈璋, 马西奎. 工程电磁场导论[M]. 陕西: 高等教育出版社, 2000.

吴锴, 陈曦, 王霞, 等. **纳米粒子改性聚乙烯直流电缆绝缘材料研究** ()[J]. 高电压技术, 2013, 39(1): 8-16.



15 / 16

Thank you!