













resistivity losses under wet and acidic condition

Fig (6) volume

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#### IV.CONCLUSIONS

1. The dielectric strength improved with increasing PVC content in the blends. [30%EPR,70%PVC] blend sample has the highest dielectric strength of :

- 25.37 KV/mm (36.47% improvement) under dry condition.
- 22 KV/mm (35.97% improvement) under wet condition.
- 21.50 KV/mm (18% improvement ) under acidic condition.

2. Exposure the samples to sulfuric acid H<sub>2</sub>SO<sub>4</sub> affected negatively on its dielectric strength.

3. Wet condition resulted in decreasing the dielectric strength due to water absorption.

4. Pure EPR sample has the highest value of volume resistivity 1050.9 Ω.cm, but pure PVC sample has lowest volume resistivity value 22.9 Ω.cm.

5. Volume resistivity of the blend sample reduced with increasing PVC content under all three different conditions.

6. Volume resistivity of all samples reduced when exposed to both water and sulfuric acid H<sub>2</sub>SO<sub>4</sub>.

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