

CHAPTER (5)

5. CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

From the present work, it can conclude that:

- The % colour removal of MB increases with increasing pH, air superficial velocity and catalyst loading up to 1 g/l while it decreases with increasing the initial dye concentration.
- The optimum conditions obtained were (pH = 7, initial dye concentration = 10 ppm, catalyst loading = 1 g/l and air superficial velocity = 1.94 cm/s).
- The performance of Slurry TiO₂ is slightly higher than that of immobilized TiO₂ at the same conditions.
- The reaction was found to be pseudo first order.

5.2. Recommendations:

The following recommendations should be considered in the future studies:

1. Investigation the effect of visible light on the % colour removal.
2. Following up and identification of the degradation process and its products.
3. Modification of the catalyst itself and evaluate its photocatalytic activity.

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