

CONCLUSION

Zeolite Y was successfully synthesized from okpella kaolin clay from Edo state, Nigeria. The Dealuminated metakaolin was treated with sodium hydroxide and aged for 7 days. The Zeolite NaY was then modified to its hydrogen form by ion exchange with NH_4Cl to give a $\text{SiO}_2/\text{Al}_2\text{O}_3$ molar ratio of 3.51. The ion exchange decreased the peak intensities of zeolite HY. The XRD analysis pattern is similar to nearly crystalline of zeolite Y type, indicating the formation of zeolite HY.

REFERENCES

- [1] David, T. W., 2007, "Zeolites- earliest solids state acids," AU J. Tchnol., 11(1) pp. 36-41
- [2] Atta, A.Y., Ajayi, O.A., and Adefila, S.S., 2007, "Synthesis of Faujasite Zeolites from Kankara kaolin Clay", J. App. Sci. Res., 3 (10) pp.1017-1021.
- [3] Aderemi, B.O., "Preliminary Studies on Synthesis of Zeolites from Local Clay," 2004, Nig. J. Sci. Res., 4(2), pp. 7-12.
- [4] Harry, R., 2001, "Verified synthesis of Zeolitic materials", Published on behalf of Synthesis Commission of the International Zeolite Association. Amsterdam: Elsevier, London New York.
- [5] Babalola, R., Omoleye, J.A., Ajayi, O., Adefila, S.S., and Hymore, F. K., 2015, "Comparative Analysis of Zeolite Y from Nigerian Clay and Standard Grade", 2nd International Conference on African Development Issues (CU-ICADI), Materials Technology Track, pp. 179-182.
- [6] Atta, A.Y., Ajayi, O.A., and Adefila, S.S., 2007, "Synthesis of Faujasite Zeolites from Kankara kaolin Clay", J. App. Sci. Res., 3 (10) pp.1017-1021.
- [7] Kovo, A.S., 2010, "Development of Zeolites and Zeolite membrane from Ahoko Nigerian Kaolin", Ph.D. thesis, University of Manchester, UK.
- [8] Ginter, D.M., Bell A.T, Radke, C.J., 1992, "Synthesis of Microporous Materials", Molecular Sieves (Synthesis of Microporous Materials), M. L. Occelli, H. E. Robson (eds.), Van Nostrand Reinhold, New York, (1) pp. 6.