

Turkish Journal of Chemistry

Turkish Journal

Dielectric Behavior of the Catalyst Zeolite NaY


of

Ertuğrul İZCİ¹, Alime İZCİ²

Chemistry

¹Department of Physics, Anadolu University, 26470, Eskişehir-TURKEY
e-mail: erizci@anadolu.edu.tr

²Department of Chemical Engineering, Eskişehir Osmangazi University, 26480, Eskişehir-TURKEY

 [Keywords](#)
 [Authors](#)



chem@tubitak.gov.tr

[Scientific Journals Home Page](#)

Abstract: Zeolites are crystalline hydrated aluminosilicates of alkaline and alkaline earth metals. The basic zeolite structure is an anionic frame of Si and Al T-atoms, which are tetrahedral and coordinated with oxygen atoms. The electrical properties of zeolites are of enormous technical importance due to their manifold applications as solid catalysts. Zeolite NaY was used in this investigation. Zeolite NaY is a synthetic zeolite and it has a faujasite structure. The electrical conductivity, dielectric permittivity, and loss factor of Na ion exchanged zeolite NaY was carried out in the 10^4 - 10^6 Hz frequency region at room temperature and different water contents using an HP 4194A LF Impedance Analyzer. The results of this investigation are given and explained to be used for further catalysis studies. Dielectric properties of zeolites have enormous importance because of their manifold applications as solid catalysts. Conductivity and dielectric permittivity studies are utilized in the investigation of the necessary conditions for catalytic activity.

Key Words: Zeolite, dielectric, conductivity, catalysis

Turk. J. Chem., **31**, (2007), 523-530.

Full text: [pdf](#)

Other articles published in the same issue: [Turk. J. Chem.,vol.31,iss.5.](#)