# FT-IR Spectroscopic Study of 1,5-Pentanedithiol and 1,6-Hexanedithiol Adsorbed on NaA, CaA and NaY Zeolites

Nuri Öztürk, Çağrı Çırak, and Semiha Bahçeli

Department of Physics, Faculty of Arts and Sciences, Süleyman Demirel University, 32260 Isparta, Turkey

Reprint requests to Dr. S. B.; E-mail: bahceli@fef.sdu.edu.tr

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The adsorption of 1,5-pentanedithiol (1,5-PDT) and 1,6-hexanedithiol (1,6-HDT) in liquid phases on NaA (or 4A-type), CaA (or 5A-type) and NaY zeolites has been studied by using infrared spectroscopy. From the IR spectra it is found that the peak positions of the symmetric as well as the antisymmetric modes of the methylene ($CH_2$) groups are observed at almost the same band values for the title dithiolates adsorbed on the A-type and NaY zeolites. On the other hand, the weak SH stretching vibration, observed for all samples, can be attributed to the sulphure atoms of 1,5-PDT and 1,6-HDT coordinatively adsorbed on cationic sites of the zeolites.

*Key words:* Infrared Spectroscopy; Dithiolates; Adsorption; A-types and NaY Zeolites.