Abstract:
The substituted or exchanged zeolites have large applicationsin petrochemical and hydrocarbons refining [1] .The active sit es versatilit y that may be present in these materials increases significantly their catalytic potential in the zeolite [1-4] . Some authors associated with Shell International Petroleum, have studied the properties of zeolite catalysts exchanged or not by group VIII elements in the perspective of improving the fuel quality [5].
The method that we have developed permits to obtain oxides(CoO and CeO) compounds under nanostructures amorphous forms supports on zeolite LTA, HY and the clay montmorillonitic, the oxides arrivals comes from the decomposition of Murexide-metal complex ina slightlyacid medium. The kinetically released cations form colloidal sols are more attractive by the electronegativity supports for this fact. The excess charges were characterized by laser zetametry. The prepared catalysts powders were analyzed by X-ray diffraction (EXD) to determine their crystallinity degree in one hand and on the other determine the average dimensions of the nanostructures obtained materials. The carried out TGA and DSC analyzes for each sample at a temperatures variation(25-500 °C) to ensure the stability of the catalysts in practice mode. The Readings of Fourier transform infrared spectra were determined by the pyridine adsorption, this to determine theBronsted and Lewis of catalyst surface acidity and the presence of elements (Co and Ce) under their most stable form in the cared structures. The catalytic tests were carried out on the glycerol transesterification at a temperature(T=75-80 ° C) and on the isomerization reaction of normal hexane(T =250-350° C).