

Table 1

Data of catalyst analysis by the method of adsorption porometry BET

Index	Catalyst	
	Activated zeolite	WFP
Average volume of pores, cm ³ /g	0.02	0.16
Average pore diameter, Å	104.10	86.60
Specific surface, m ² /g	7.20	108.60

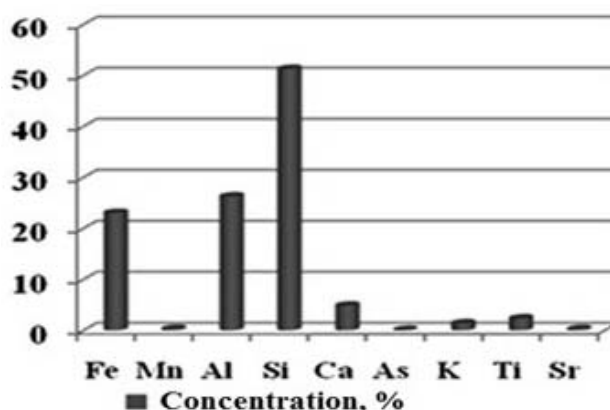


Fig. 4 – Elemental composition of WFP.

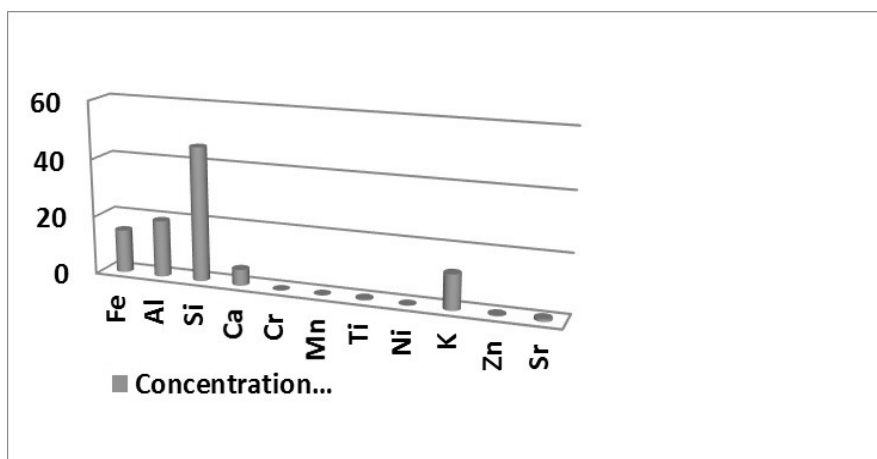


Fig. 5 – Elemental composition of zeolite.

It is known that preliminary processing of raw materials on the basis of industrial and household waste (tires and tubes and plastic) can have in the known physical and chemical ways significant effect on change of their structure and hydrocarbonic structure, and in some cases and reactionary ability that allows to improve technologies of processing of waste and to increase selectivity concerning the obtained range of products.^{13,14} For this reason influence of preliminary ultrasonic processing, radiative effects, cryogenic processing by liquid nitrogen and mechanical crushing of initial raw materials on the basis of waste on the yield and composition of

products of hydrogenation thermocatalytic processing has been studied.

As is known, the effect of cavitation is accompanied by microexplosions, ultrasound, as well as mechanical cuts and collisions with the action of hundreds of cutting pairs moving towards each other at a high linear velocity. The value of this velocity is several tens of meters per second, which makes it possible to cut the dispersible substance on the smallest microparticles by hundreds of thousands of micropulses.^{15,16} The effect of preliminary ultrasonic treatment of rubber crumbs of tires with the degree of dispersion of about 1 to 4 mm in water on the composition