

Recycling of Waste Solution after Hydrothermal Conversion of Fly Ash on a Semi-Technical Scale for Zeolite Synthesis

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In order to compare the zeolites Na-X and Na-A synthesized on laboratory and technical scale commercial forms of Na-X and Na-A zeolites were purchased from Sigma-Aldrich (USA) and characterized in terms of chemical composition, mineral phases composition, and textural parameters using the procedures described in the section 2.3 in the Manuscript.

Table S1. Chemical composition of commercial Zeolite 13X (Na-X) and Linde A (Na-A)

	Zeolite 13X (Na-X)	Linde A (Na-A)
	[%]	
Na₂O	12.73	17.25
MgO	nd	nd
Al₂O₃	23.08	28.89
SiO₂	44.73	38.90
K₂O	0.03	0.08
CaO	0.02	0.03
TiO₂	nd	0.01
Fe₂O₃	0.02	0.02
LOI	19.24	16.82

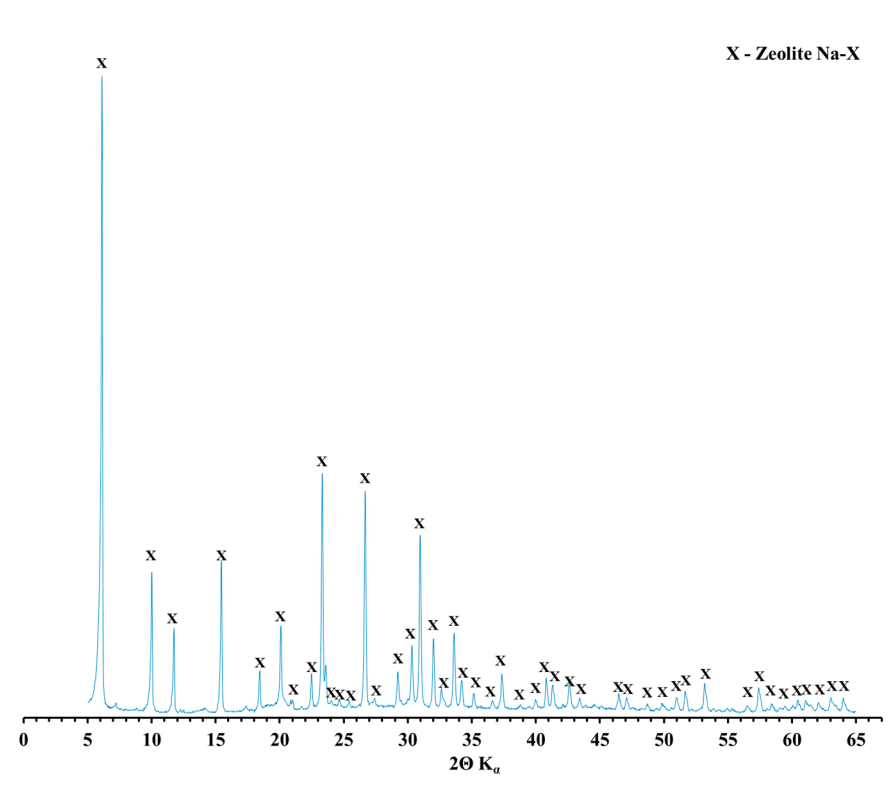


Figure S1. Mineral phase composition of commercial Zeolite 13X (Na-X)

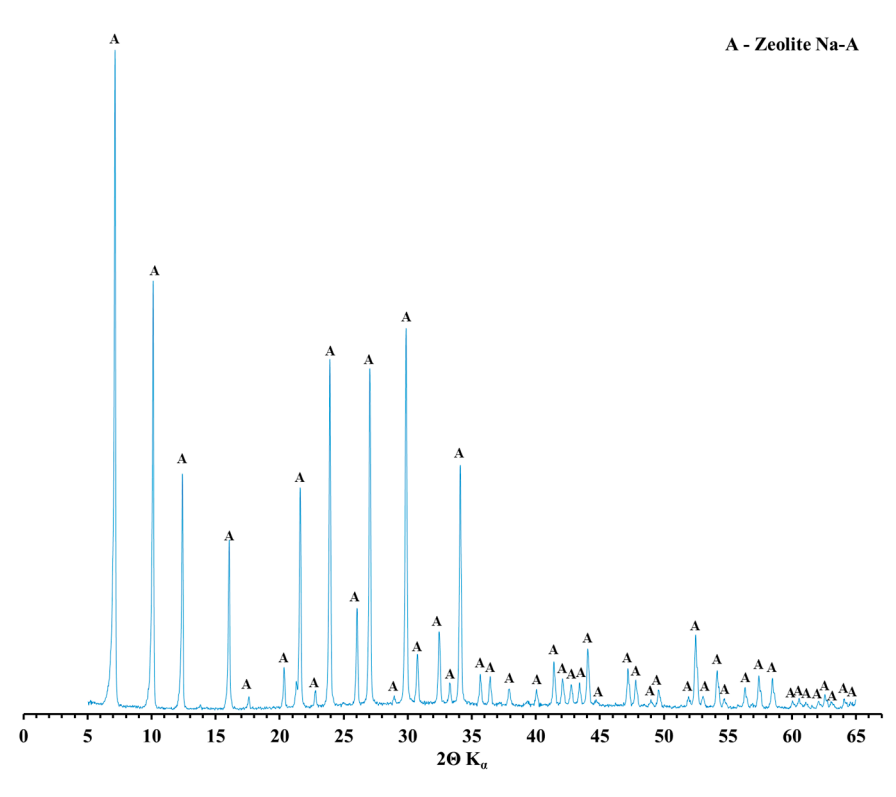


Figure S2. Mineral phase composition of commercial Linde A (Na-A) zeolite

Table S2. Textural parameters of commercial zeolites Na-X and Na-A

Zeolite	S_{BET} [m²/g]	S_{mic.}[m²/g]	S_{mes.} [m²/g]	V_{mic.} [cm³/g]	V_{mes.} [cm³/g]
Zeolite 13X (Na-X)	646	615.938	2.142	0.238	0.006
Linde A (Na-A)	7	1.723	4.291	0.011	0.008

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