Supplementary Data

Effect of potassium on the structure, characteristics and Cs sorption ability of porous materials in the system Na_2O-B_2O_3-SiO_2-GeO_2

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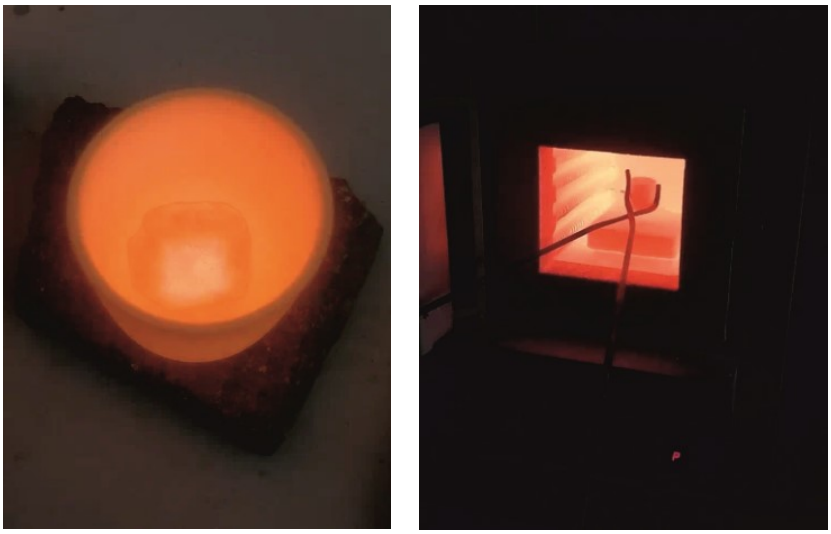

Figure S1. The synthesis of the initial glasses by melting a charge with subsequent pouring in an air atmosphere.

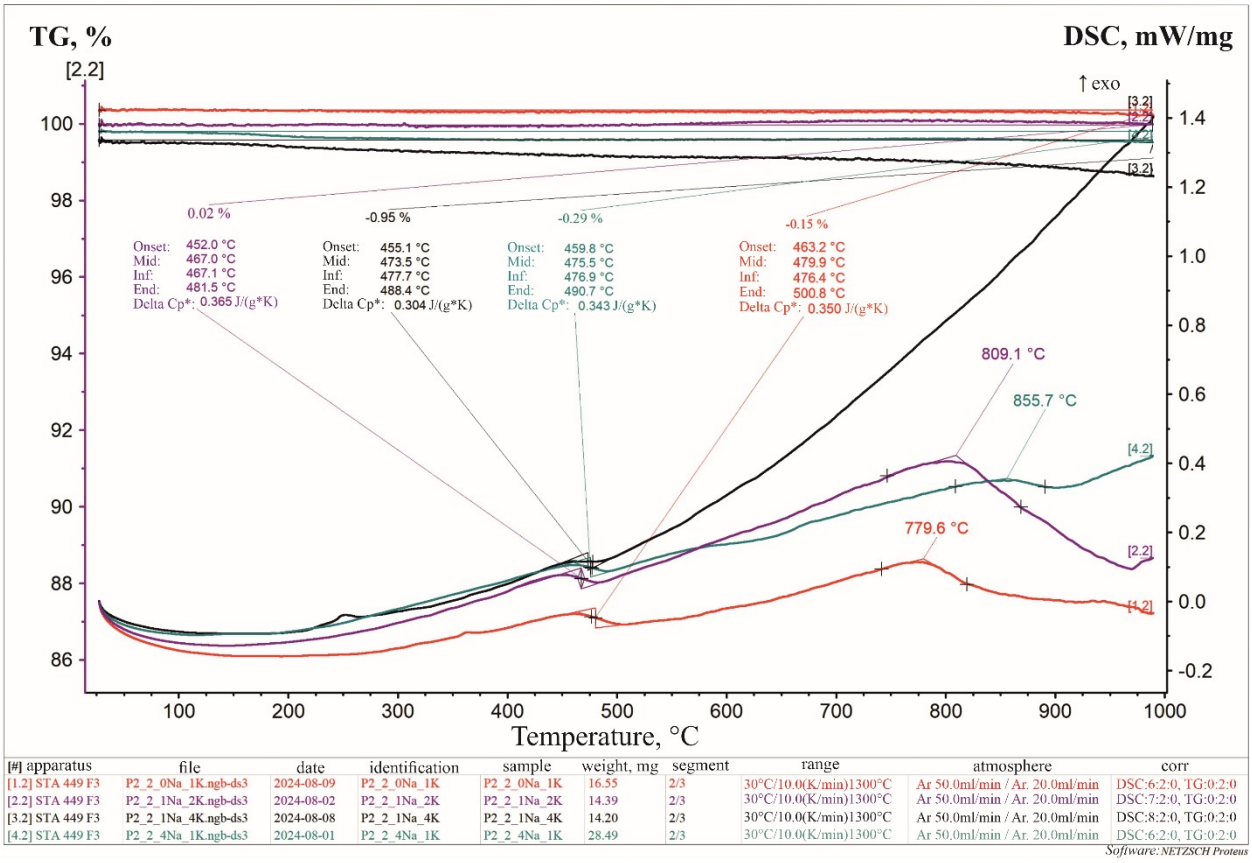

Figure S2. DSC curves of the initial glasses of the Na_2O/K_2O-B_2O_3-SiO_2-GeO_2 system.

Table S1. Characteristics of the porous glasses.

Designation	Specific surface area, m^2/g	Mesopore volume, cm^3/g	Micropore volume, cm^3/g
0K1Na	470.2	0.125	0.093
0,33K0,67Na	460.4	0.146	0.116
0,4K0,6Na	429.0	0.137	0.134
0,5K0,5Na	450.0	0.147	0.075
0,6K0,4Na	445.1	0.148	0.028
0,67K0,33Na	463.7	0.150	0.027
1K0Na	522.7	0.172	0.004

Table S2. Dependence of density, molar volume and atomic density on the composition of the initial glasses of the Na_2O/K_2O-B_2O_3-SiO_2-GeO_2 system.

Designation	Density, g/cm^3	Atomic density, A^{-3}	Molar volume, mol/cm^3
0K1Na	2.408	0.0804	28.43449
0,2K0,8Na	2.382	0.0790	28.95032
0,33K0,67Na	2.347	0.0775	29.52237
0,4K0,6Na	2..373	0.0781	29.27113
0,5K0,5Na	2.336	0.0767	29.83831
0,6K0,4Na	2.363	0.0772	29.60754
0,67K0,33Na	2.345	0.0778	29.41534
0,8K0,2Na	2.372	0.0773	29.56918
1K0Na	2.379	0.0767	29.82075

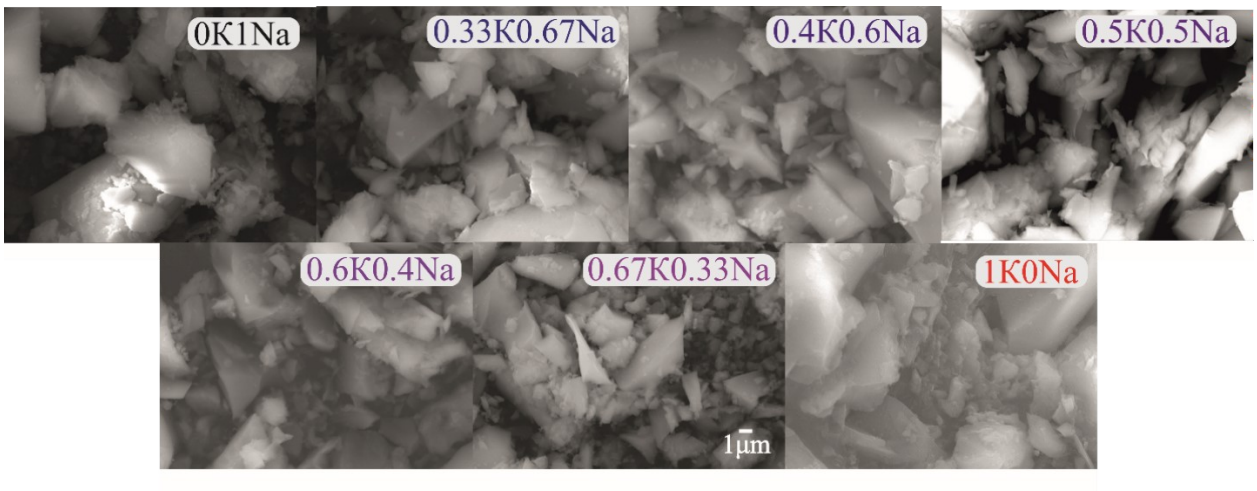

Figure S3. SEM images of tablets pressed from saturated porous glasses.

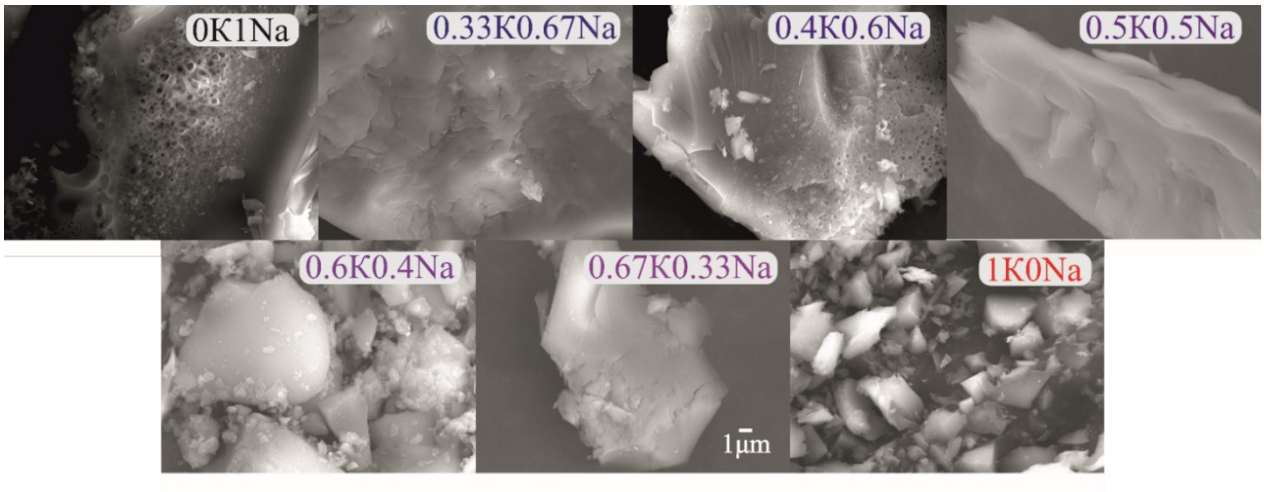

Figure S4. SEM images of fragments of tablets remaining after leaching.

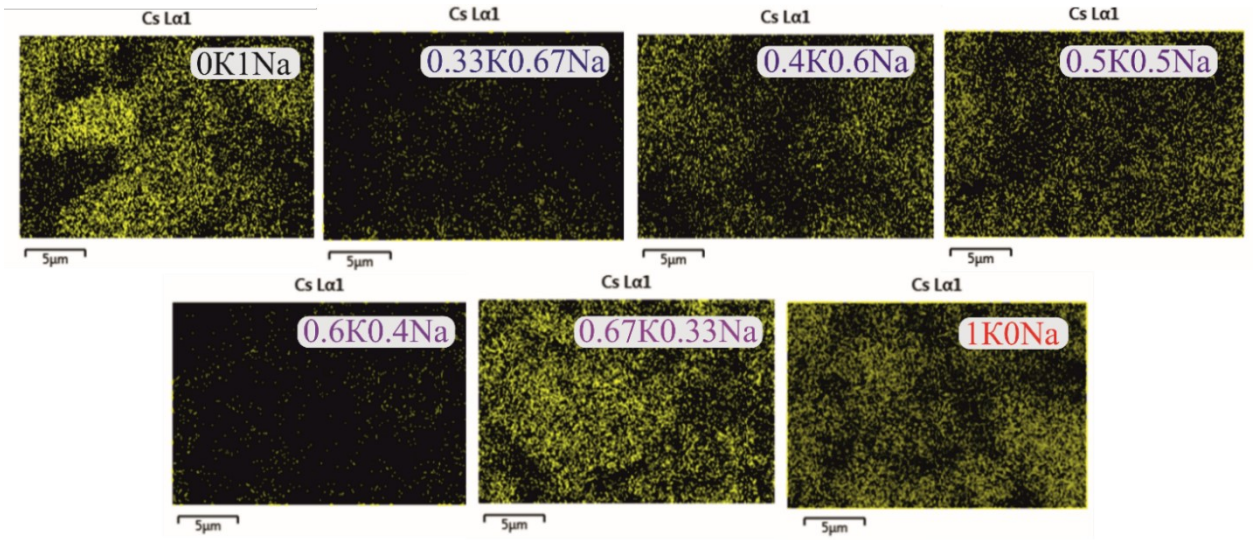

Figure S5. EDX elemental mapping images of tablets pressed from saturated porous glasses.

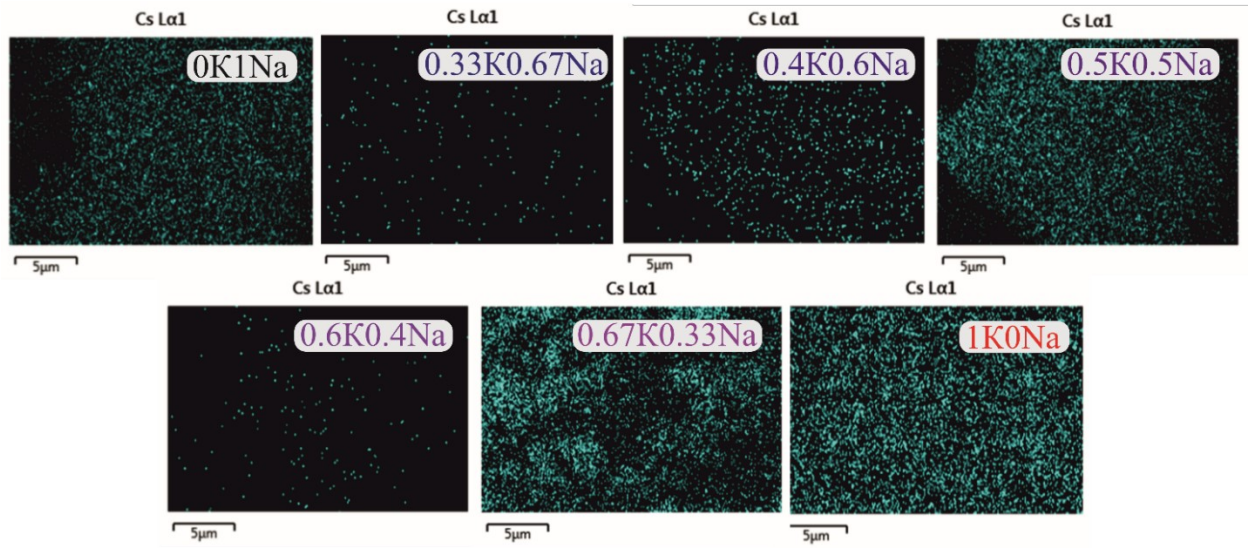

Figure S6. EDX elemental mapping images of fragments of tablets after leaching.

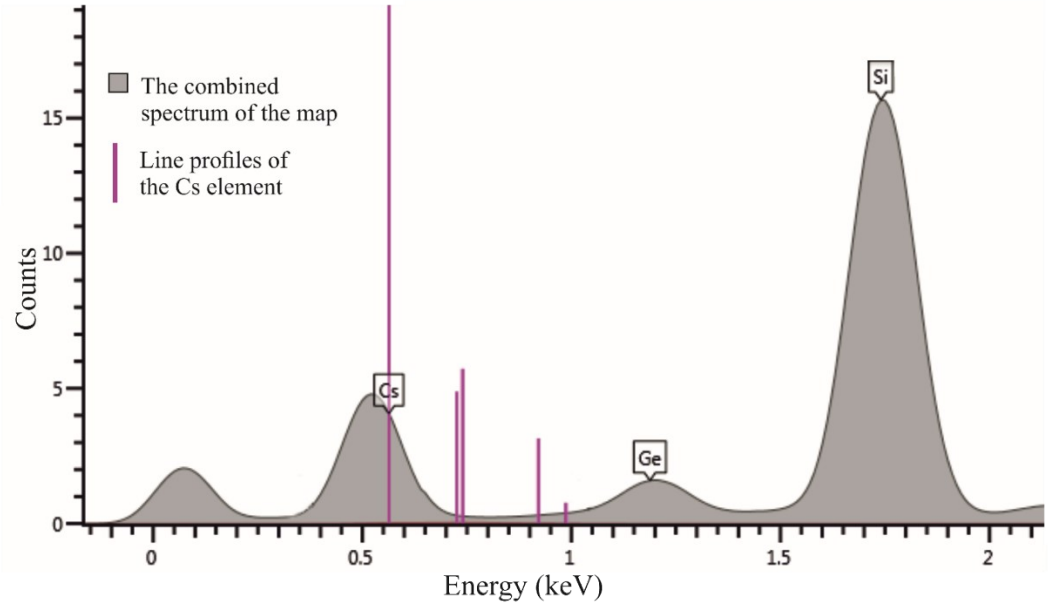

Figure S7. Typical EDX spectrum of the saturated porous glasses.