



Figure 3. SEM-EDX spectra of the studied diatomite samples: (A) raw diatomite, (B–D) diatomite with immobilized silver (0.71, 4.65 and 7.21%, respectively).

Table 2. Mass fraction and number of moles of silver, chlorine, silver chloride nanoparticles and metallic silver nanoparticles in the obtained composites.

Samples	Ag		Cl		AgCl-NPs		AgNPs		AgCl-NPs:AgNPs
	mass%	n, mol	mass%	n, mol	n, mol	%	n, mol	%	%
0.71% Ag/diatomite	0.71	0.066	0.23	0.065	0.065	98.4	0.001	1.5	98:2
4.65% Ag/diatomite	4.65	0.431	1.08	0.305	0.305	70.7	0.126	29.3	71:29
7.21% Ag/diatomite	7.21	0.668	1.21	0.341	0.341	51.1	0.327	48.9	51:49

In the case of (AgCl,Ag)NPs/diatomite composite (Ag 0.71%), the ratio of AgCl-NPs:AgNPs nanoparticles is 98:2 (%), while in the case of (AgCl,Ag)NPs/diatomite composite (Ag 4.65%), the ratio is changed to 71:29 (%). In the case of the (AgCl, Ag)NPs/diatomite composite (Ag 7.21%), when a higher concentration of silver nitrate is used, the relative content of AgCl-NPs significantly decreases to 51:49 (%) (AgCl-NPs: AgNPs).