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## Application of electron microscopy methods to the study of porous and quartz-like glasses

*Irina A. Drozdova, Tatiana V. Antropova, Michail D. Tolkachev*

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### Keywords

porous glass, Vycor type glass, photochromic glass, electron microscopy, electron micro-probe analysis

### Abstract

The structure of high-silica porous glasses and quartz-like (Vycor type) glasses has been investigated by transmission and scanning electron microscopy and by electron micro-probe analysis. Porous glasses (PGs) have been manufactured by acid leaching of phase-separated alkali borosilicate glass plates. To obtain the quartz-like glasses the PG samples were sintered at different temperatures up to 900°C. Before sintering a part of PGs was impregnated with salt solutions containing Ag. Features of the structure of quartz-like glass matrix are revealed. The parameters and arrangement of a photosensitive Ag-Hal phase in photochromic quartz-like glasses are determined.



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