

Candidate application to the ISGS Board of Directors

Prof. Olga Shilova

Age: 61

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CV with main research interests:

Professor (2013), Doctor of Chemistry (2005), PhD (1984).

Head of the Laboratory of Inorganic Synthesis since 2006 to the present and team leader (1998-2006) at Institute of Silicate Chemistry of the Russian Academy of Sciences – research interests: sol-gel synthesis of protective insulating and biostable coatings, sol-gel surface modification of powders ('skin'-layers), drug containers; and "Avangard" Co (1974-1998) – research interests: 'spin-on glass' films for microelectronics.

Vice-president of the Russian Ceramic Society, a member of the editorial board of the scientific journal "Khimicheskaya Tekhnologiya" ("Chemical Engineering", Publishing House "Nauka i tehnologii", Russia);

Member of the Organizing Committee of the First Russian Conference ("Sol-Gel-2010", St. Petersburg) and the Second Conference of the CIS ("Sol-Gel-2012", Sevastopol). Laureate of the Russian Academy of Sciences, 2012 (in honor of prof. Grebenschikov) for the series of works "Physical chemistry and technology of glass and glass-ceramic composite material prepared from multicomponent hybrid sols based on silicon and titanium alkoxides".

5 recent publications:

- 1) Shilova O. A. (2013) Synthesis and structure features of composite silicate and hybrid TEOS-derived thin films doped by inorganic and organic additives. *J. Sol-Gel Sci. Technol.* – Doi: 10.1007/s10971-013-3026-5.
- 2) T. V. Khamova, Shilova O. A., Vlasov D. Yu., et al. (2012) Bioactive coatings based on nanodiamond-modified epoxy siloxane sols for stone materials. *Inorgan. Mater.* 48 (7): 702-708.
- 3) Shapovalov V. I., Shilova O. A., Smirnova I. V. (2011), et al. Modification of the glass surface by titanium dioxide films synthesized through the sol-gel method. *Glass Phys. Chem.* 37(2): 150-156 – DOI: 10.1134/S1087659611020143.
- 4) Shilova O. A., Hashkovsky S. V., Khamova T. V., Pugachev K. E. (2011) Electrophoresis in the sol-gel formation of heterophase thin-film. [Glass Phys. Chem.](#) 37 (5): 545-548 - DOI: 10.1134/S1087659611050130.
- 5) Shilova O. A. (2010) Heterogeneous sol-gel systems – derived ceramics. *Adv Sci Tech. (Trans Tech Publications)* 63: 131-140. – Doi:10.4028/www.scientific.net/AST.63.131

Statement of interest

Sol-gel synthesis of thin films, including 'spin-on glass' films, epoxy-inorganic and glass-ceramic coatings for microelectronics, optics, power and biological technological; sol-gel surface modification of powders ('skin'-layers); using sol-gel processing to prepare porous drug containers from silicon.