



Fig. 6. Dependence of $1/k$ on λ for the colloid solution of silver.

Thus, the optimum conditions for the synthesis of Ag–TiO₂ nanostructures were determined. The spectral data of the solutions show that an increase in the titanium tetraisopropoxide concentration leads to an increase in the thickness of the synthesized TiO₂ shell. The ratio between the masses of the Ag core and the TiO₂ shell was determined from the absorption spectra of Ag–TiO₂ solutions. In the presence of a semiconductor shell, the electron density in silver NPs and the damping constant of plasma oscillations were found to decrease.

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