

Article

Impact of ZnO Addition on Er³⁺ Near-Infrared Emission, the Formation of Ag Nanoparticles, and the Crystallization of Sodium Fluorophosphate Glass

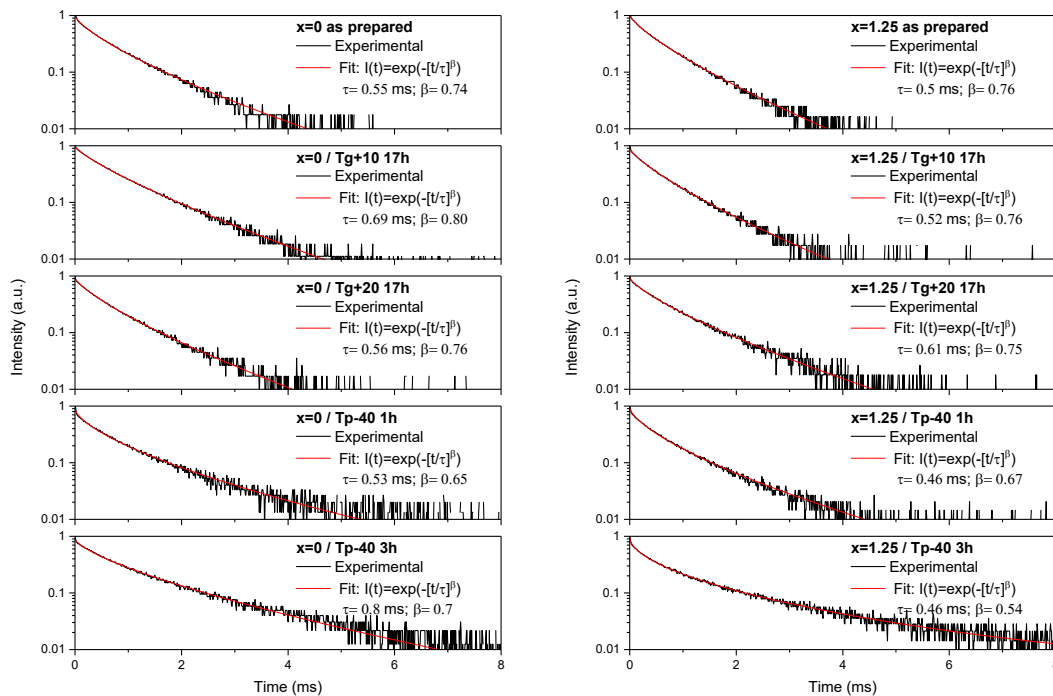
Luukas Kuusela ¹, Alexander Veber ^{1,*}, Nadia G. Boetti ², and Laetitia Petit ¹

¹ Photonics Laboratory, Tampere University, Korkeakoulunkatu 3, 33720, Tampere, Finland; luukas.kuusela@tuni.fi (L.K.); laetitia.petit@tuni.fi (L.P.)

² Fondazione LINKS—Leading Innovation & Knowledge for Society, Via P. C. Boggio 61, 10138 Torino, Italy; nadia.boetti@linksfoundation.com

* Correspondence: alexander.veber@tuni.fi

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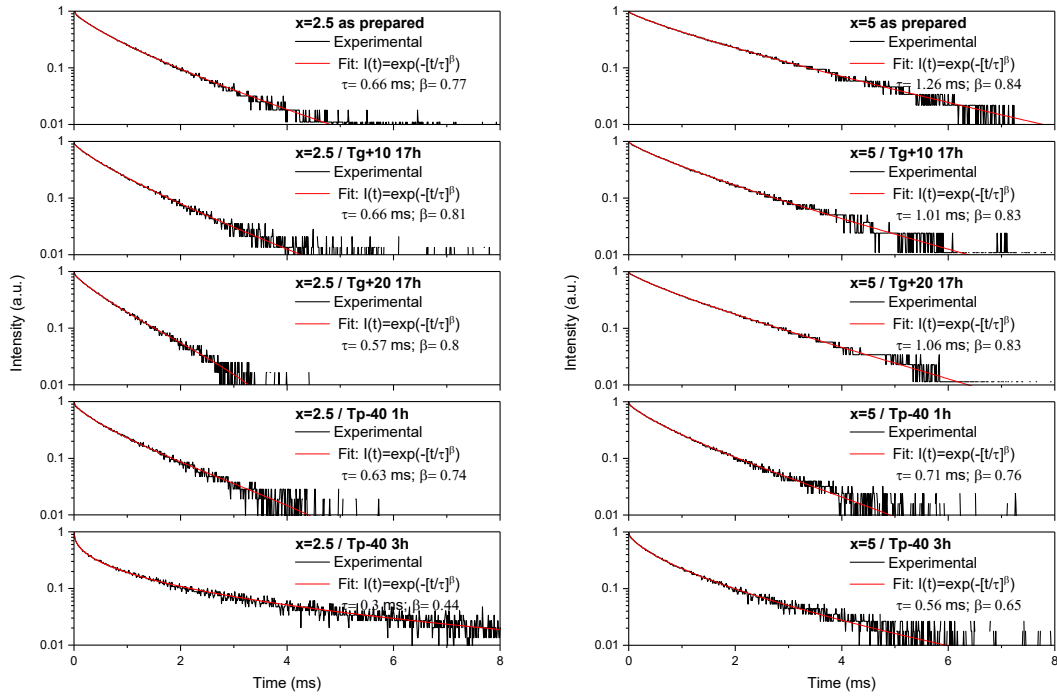
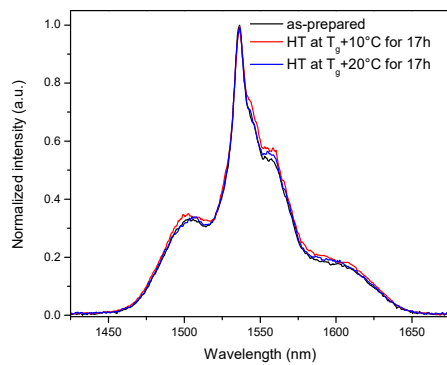
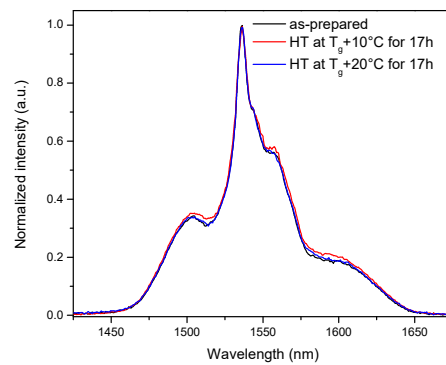


Figure S1. Emission decay curves and the appropriate fit using the stretched exponential function for investigated glasses and glass ceramics.



(a)



(b)

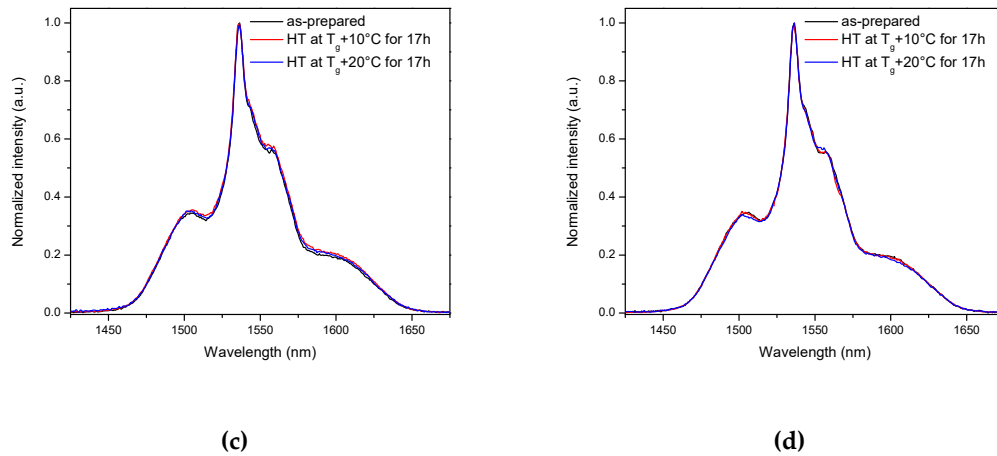


Figure S2. Normalized emission spectra of $\text{Er}^{3+}: 4\text{I}_{13/2} \rightarrow 4\text{I}_{15/2}$ optical transition from the glasses prior to and after the heat treatment at $T_g + 10^\circ\text{C}$ and 20°C for 17 h for $x=0$ (a), $x=1.25$ (b), $x=2.5$ (c) and $x=5$ (d) ($\lambda_{\text{exc}}=976$ nm). Corresponding integral intensity of the spectra is shown in Figure 6b.

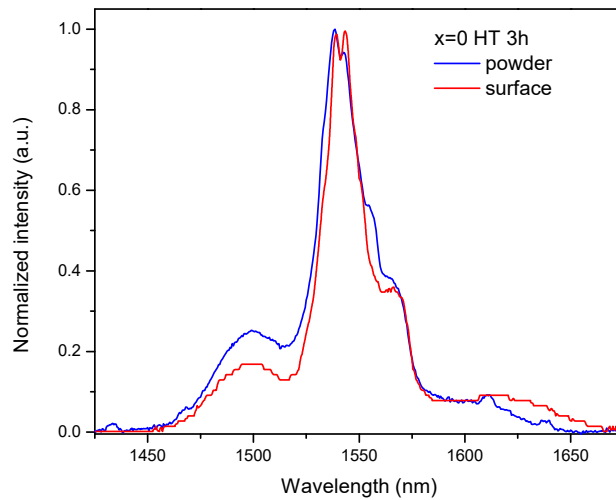


Figure S3. Normalized emission spectra of the GC obtained by the heat treatment of $x=0$ glass at ($T_g+20^\circ\text{C}$) for 17 h followed by a hold at its respective ($T_p-40^\circ\text{C}$) 3 h measured from the surface of a bulk piece and crushed into powder sample.

