Application of molecular dynamics techniques and luminescent probes to the study of glass structure: the SiO2–GeO2 case

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Résumé en anglais	In this paper, we report on the results obtained from molecular dynamic simulation of a Eu3+-doped germanosilicate glass. This simulation provides further information on the structure. In particular it reveals a homogeneous distribution of SiO4 and GeO4 units, a decrease of defects compared to SiO2 and GeO2 glasses, and a trend to clustering of the doping ions. Using the modified crystal-field theory, the luminescence spectroscopic properties have been computed and comparison with experimental data has allowed a correlation of the spectral features with two main types of local environment depending on the coordination number and on the medium-range arrangement around the doping ions.
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