**A MODEL DESCRIBING THE COMPONENT ACTIVITIES OF MOLTEN SLAG BASED ON HTRS MEASUREMENT AND MD SIMULATION**

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It is intended to deduce the component activities of molten slag from the informations of its bonding structure, which results from high temperature Raman spectroscopy (HTRS) and MD simulation. The model is called as SELF-BoSS. This paper takes the CaO-SiO2 system melted under 1873 K as example to illustrate the model. As generally accepted concept, the microstructure unit of the mentioned silicate is Si-O tetrahedron. There are 5 tetrahedral Qn (Q4, Q3, Q2, Q1, Q0). Here, n denotes the number of the bridging oxygen around a Si4+. Under molten state the Raman spectroscope is an envelope. By means of HTRS the envelopes of several samples under 1873 K were registered.