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Thermodynamic modeling of calcium orthophosphates formation

© **Anna P. Solonenko**,[+] and **Olga A. Golovanova***
Chair of Inorganic Chemistry. Omsk State University n.a. F.M. Dostoevskiy. Mira St., 55 a. Omsk, 644077. Omsk region. Russia. Phone: +7 (3812) 22-22-00. E-mail: anna.petrovna@bk.ru

*Supervising author; [+]Corresponding author

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Abstract

The regularities of phase formation in the system $Ca(NO_3)_2$–$(NH_4)_2HPO_4$–H_2O at varying concentrations of the components within 1.33-2.00 and pH = 0-14 were theoretically investigated. The invariance of the crystallization diagrams of calcium phosphates with respect to relations $C_{Ca(NO_3)_2} / C_{(NH_4)_2HPO_4}$ was shown. The effect of pH on crystallized compounds nature and their stability discussed in detail in the article.