

On the chemical structure of humic substances in soils

Shinkarev A., Gnevashev C.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

Humic substances are present in real soils as a nonvalently and valently bound ensemble that belongs to a group of spatially structured systems, in which the heterogeneity of adsorption surfaces of secondary minerals is associated, in a complicated manner, with the heterogeneity of organic macromolecules and intra- and intermolecular links. An indefinite multitude of possible macromolecular conformations of humic substances can correspond to the minimum of free energy in the whole structured system.
