

Mathematical modeling of non-equilibrium sorption

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Abstract: We consider the system of equations modeling the process of non-equilibrium sorption. Difference approximation of differential problem by the implicit scheme is formulated. The solution of the difference problem is constructed using the sweep method. Based on the numerical results we can conclude the following: when the relaxation time decreases to 0, then the solution of non-equilibrium problem tends with increasing time to solution of the equilibrium problem.

Keywords: The system of equations of non-equilibrium sorption, difference approximation, the implicit scheme, sweep method, numerical experiments.

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