

THE ROLE OF OPEN AND CLOSED
POROSITY IN THE KINETICS OF METHANE
ABSORPTION (RELEASE) BY COALS

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The model of a solid containing open (connected with the external surface by channels) and closed pores is applied to a coal substance absorbing (or releasing) methane. The influence of the layer of adsorbed gas molecules on the kinetics of gas absorption (release) by a porous solid is investigated. It is established that the presence of closed porosity results in an increase of the gas release duration. The developed system of open pores promotes a decrease of the released gas quantity, i.e., it is followed by the gas release suppression.