Pseudocomponent method for modeling component-fraction composition of a fluid during oil and gas production

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When designing oil and gas production processes, it is necessary to correctly model the component – fractional composition of the produced fluid. In modern hydrodynamic simulators, one of the main difficulties of modeling is to replace a large number of components in oil and natural gas with a much smaller number of pseudoparticles. In addition, it is necessary to describe the physicochemical properties of hypothetical oil and gas so that they describe phase transitions and filtration of a real fluid as accurately as possible. The paper proposes an automatic lambing scheme based on K – values. The error of the method is no more than 5%.

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