16.12.2020: Xəbər

Article by Khazar University researcher published in "Fluid Phase Equilibria" journal

Article entitled "Wax precipitation modelling using Perturbed Chain Statistical Associating Fluid Theory (PC-SAFT)" authored by Izat Shahsenov, seniour researcher at eiLink R&D Center and Faculty member at Khazar University Department of Computer Science, was published in international journal "Fluid Phase Equilibria", Elsevier.

The objective of the research is to substitute traditional cubic equations-of-state with Perturbed Chain form of the Statistical Associating Fluid Theory (PC-SAFT) and its application in the real field. The advantage of PC-SAFT is mainly the accuracy in the estimation of fugacities of heavy components in vapor and liquid mixtures. The novelty of this research was in approach for fluid characterization. Such models as multi-solid or solution-solid were not used. Instead, wax phase was represented as one phase and its amount was taken from inexpensive cross- polarized microscopy data. Therefore, we did not need PNA analysis. To be able to accurately predict with one wax component, reservoir was divided into sectors to determine PC-SAFT parameters for this wax component from calibration of each sector separately. Later, when a new well is drilled, its content of wax can be determined from the cross-polarized experiment and PC-SAFT parameters are same as PC-SAFT parameters of that sector (they were obtained from calibration for that sector before). This data alone is enough to predict amount of precipitated wax at any conditions with high accuracy.

The article can be read at this link:

https://www.sciencedirect.com/science/article/abs/pii/S037838122030460X?via%3Dihub

Kompüter elmləri departamentinin əməkdaşının məqaləsi "Fluid Phase Equilibria" jurnalında

Xəzər Universiteti Kompüter elmləri departamentinin əməkdaşı İzat Şahsenovun "*Wax precipitation modelling using Perturbed Chain Statistical Associating Fluid Theory (PC-SAFT)*" başlıqlı məqaləsi Elsevier nəşriyyat evi tərəfindən yayımlanan "Fluid Phase Equilibria" adlı beynəlxalq jurnalda dərc olunmuşdur.

Məqaləni aşağıdakı link vasitəsilə oxumaq olar:

https://www.sciencedirect.com/science/article/abs/pii/S037838122030460X?via%3Dihub