

## **Metasomatic Nano-dolomitization is a New Trend in stimulation of Petroleum Reservoirs**

**N. P. Zapivalov**

*Institute of Petroleum Geology and Geophysics, Siberian Branch of Russian Academy of Sciences,  
Novosibirsk, Russia, [ZapivalovNP@ipgg.nsc.ru](mailto:ZapivalovNP@ipgg.nsc.ru)*

The behavior of petroleum collectors in porous media greatly depends on nanostructures and nano-dimensional processes in petroliferous strata. Author considers new nanotechnology for petroleum systems on base of the nanoeffects by metasomatic dolomitization.

It is offered to initiate the accelerated technogenic process of metasomatic dolomitization and to create the highly productive centres on fields. As a result the specific surface of hollow space will increase. In bed system many processes become more active: formation of jointing, an overflow of fluid weight from a block matrix in cracks, and even a neogenesis of hydrocarbonic weights. Substantially percolation processes will amplify, efficiency of wells and oil recovery will increase. On occasion process of compulsory and accelerated dolomitization (metasomatosis) can be accompanied with wave and thermal influence.

Successful use of the offered nanotechnology can make essential impact on duration of working out of deposits and final petroreturn.