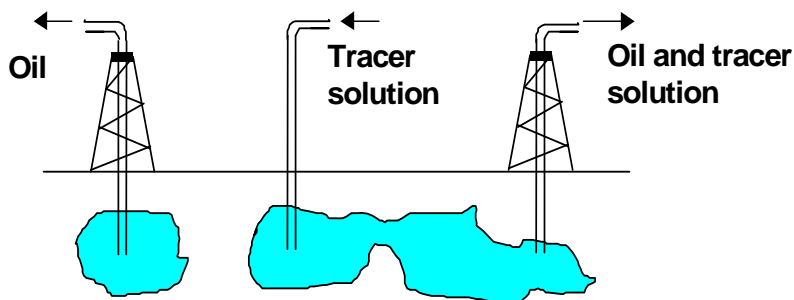




STABLE RADICALS IN OIL PRODUCTION INDUSTRY

Stable nitroxyl radicals are chemical substances with an extremely low threshold in the determination of concentration by the method of electron paramagnetic resonance (up to 10^{-12} mole). The developed methods of synthesis make it possible to obtain nitroxyl radicals that are stable in various media and can be easily identified by spectral characteristics. There exist no natural analogs of the nitroxyl radicals obtained by the proposed synthesis.

The properties of stable nitroxyl radicals allow their use as stable indicators of motion of stratal liquids. The differences in the spectral characteristics determined make possible simultaneous identification of different tracers placed into many pumping wells of the deposit under investigation.



A series of industrial tests of the tracers proposed have been performed in the oil fields of Bashkortostan.

The developed methods of synthesis of the chemical substances from the available cheap raw material were protected by the patents of the Russian Federation.

Some prototype lots of stable nitroxyl radicals are produced on the Pilot Plant of the Novosibirsk Institute of Organic Chemistry of SB RAS.

Commercial offers

Delivery of prototype lots. Participation in the development of the methods of tracer placement methods, organization and control. Partnership in production.

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