

# Oil & Gas Innovations

V.A. Grushnikov<sup>1</sup>, VINITI RAS, Dr., viniti@mach04.ru

<sup>1</sup> Senior Researcher, Moscow, Russia

**Citation:** Grushnikov V.A. Oil & Gas Innovations, *Kompetentnost' / Competency (Russia)*, 2019, no. 7, pp. 4–7

## key words

oil reserves, innovative technologies, experts

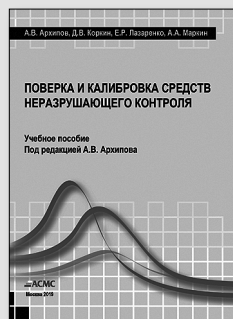
In all spheres of human activity, an indispensable primary condition for the realization of the most diverse constructive and technological measures of a domestic or industrial nature is their reliable supply with fuel and energy resources. Despite the urgent attempts to replace traditional liquid and gaseous hydrocarbons with alternative and, above all, renewable solar, wind, tidal, etc. sources of energy, which, however, are difficult to realize on a large scale, the usual natural resources - oil and gas not yet interchangeable. This is vividly proved both by the state of the market for supply and demand for them with the struggle for price stability, and by the expansion of their geological prospecting. In addition, huge deposits in the spurs of the sea shelf, ocean basins and in the permafrost of methane hydrate or gas ice are completely undeveloped and are still not practically mastered. Their industrial production is the subject of a long-term technological perspective and gives hope for the energy security of humanity in the future. In the meantime, we are talking about greater availability and degree of extraction of oil from bituminous deposits and gas from underground deposits shale using high technologies. Their use even in difficult conditions of Northern Canada and with extraction from previously conserved low-yield wells of the USA makes such complex oil and gas production competitive and traditional and can be used as geopolitical blackmail and pressure on even economically developed countries.

## References

1. Sagdax Geometry for Impaired Bitumen Reservoirs, US patent N 9803456.
2. Method Employing Pressure Transients in Hydrocarbon Recovery Operations, US patent N 9803442.
3. Method and apparatus for in-situ radiofrequency assisted gravity drainage of oil, US patent N 7441597.

## НОВАЯ КНИГА

Архипов А.В., Коркин Д.В., Лазаренко Е.Р., Маркин А.А.



## Поверка и калибровка средств неразрушающего контроля

Учебное пособие. — М.: АСМС, 2019

Проблемам обеспечения единства измерений в области неразрушающего контроля (НК) уделяется недостаточно внимания.

Учебное пособие посвящено вопросам поверки и калибровки средств неразрушающего контроля. Рассмотрены современная нормативно-техническая документация, терминология, классификация, принципы действия, технические требования, метрологические характеристики, поверка и калибровка средств НК.

Пособие предназначено для слушателей, обучающихся по программе «Поверка и калибровка средств неразрушающего контроля».

**По вопросам приобретения обращайтесь по адресу:** Академия стандартизации, метрологии и сертификации (АСМС), 109443, Москва, Волгоградский пр-т, 90, корп. 1. Тел. / факс: 8 (499) 742 4643. Факс: 8 (499) 742 5241. E-mail: info@asms.ru