Applications and prospects of graphene in oil and gas industry

Weijia Qu and Yuxiu An
China University of Geosciences, China

Graphene was attracted a widespread attention recently years because of its unique atom-thick two dimensional structure and excellent properties. Graphene materials have been applied in energy storage and conversion, catalysis, electronic, high strength material, chemical and biosensor and biotechnology fields. With the decline of conventional oil and gas resource, unconventional oil and gas resource and complex well increased gradually. The drilling technology encountered new challenge. We reviewed the research and application of graphene materials in oilfield based on the requirement of drilling technology, and discussed the prospect of graphene material in oilfield.

anny@cugb.edu.cn