НЕФТ ВА НЕФТ МАҲСУЛОТЛАРИ УЧУН ГОССИПОЛ ВА ЭТИЛЕН ВИНИЛАЦЕТАТ СОПОЛИМЕРИ АСОСИДА ДЕПРЕССОР КОМПОЗИЦИЯЛИ ПРИСАДКАЛАР

Самиев А.А.

Фозилов С.Ф.

Фозилов Ҳ.С.

Первова М.

Бухоро муҳандислик-технология институти

Аннотация lZjZnbgeb g_nleZj mqmg dkhfZiikZlhdZkbfhZkhk dhfihabyb^_ij_kkhj ijbkZ^dZeZjbgb he-briZokkZbzkbhd br hjbc lhaZeZr fZ˜kmehlb hebg^b kZbfZjZ^hjeb]bgb lb`hjZl khihebf_j [beZg khebrlbj]Zg^Z dhfihabl ˜hkbe [ƒebrb `ZjZzgb^ ƒrbfqZml[kba mZ[eb nmgdpbhgZe]mjm˜eZjgbg] iZ˜^eZg[ƒebrb [beZ ba˜heZgZ^b Hebg]Zg ^_ij_kkZgl fh^_e g_nlbgbg] hl ˜C.]ZqZ dZfZclbjbr]Z heb[d_e^b

Калит сўзлар: iZjZnbgeb g_nl wlbe_g\bgbeZp_lZl khZ l_ogbd]hkkbihe ^_ij_kkZgl ^_ij_kkhj imrhlbe˜bZjhjZl lZjZnbgeb g_nlgbg] h\mr h eb]bgb k_abeZ ƒa]ZjlbjZ^b]Zg ^_ij_kkZgleZj hjZkb^Z \bgbeZp_lZl khihebwlbe_g k_]f_glbgb ƒa bqb]Z he]Zg wlbe_g\bgb dbjZ^b Mr[m [ƒebf^Z rZjeb fZc^ZeqZ]dhf^iZg[hgleZjg ƒaZjh fZc^ZeZr hj Zeb khihebf_jgbg] ^_ij_kkhj lZtk mgbg] l_ogbd]hkkbiheeb dhfihabl ˜hkbe [ƒebrb `ZjZzgb^ ƒrbfqZml[kba mZ[eb nmgdpbhgZe]mjm˜eZjgbg] iZ˜^eZg[ƒebrb [beZ Nmvj_ ljZgknhjf kB_dljhkdhibykb M; ki_dljhkdhibykb ki_dljhkdhibykb [beZg lZ\kbmdhZgb]^ZZgg hlbr ˜ZjhjZlb \Z h\mr h eb]b ƒj]Zgbe^bppm̆ ^haZ^Z˜ \Z ˜fZk h bjebd^Z]b l_ogbd]hkkbihegb ƒa b wlbe_g\bgbeZp_lZl khibZeZjZgjbZ^ZohfgZnl]Z yorb ^_i lZtkbjƒjdkZl^b Dhfihablgbg] kZfZjZ^hjeb]bgb lb`hjZl khebrlbj]Zg^Z dhfihabl ˜hkbe [ƒebrb `ZjZzgb^ ƒrbfqZml[eb nmgdpbhgZe]mjm˜eZjgbg] iZ˜^eZg[ƒebrb [beZ X hjb^Z dƒjkZlbe]Zgmbx^_ebdgbg] h\mr h eb]bgb h iZkl˜ZjhjZleZjmZmj ^_\hjeZjb^Z ohfg_nl^Zg Zllb fb ^hjbgb he^bgb hebr zdb dZfZclbjbr g_nl \Z]Za k \Z bffZl br^bj @ FZtemfdb iZjZnbgeZj ZkhkZg h^ b[hjZl [ƒebmeZj ZkhkZg ohfg_nl^Z iZjZmgbgeƒbdfbjb^Z `ZjZzgb]Z heb[3d_8eaZ[_ebxkhiZ^Znbgeb h\mr h eb]b [ƒe]Zg g_nleZjgb lZrbr fZkZeZkb l_jfZebmekZmeZjeb[mgbg]˜bfhlb rmg^Zg b[hZjZ^lbeZ^b]Zg g_nlebhbmZjZ[fZtemf fZkhnZeZj^Z df˜i_qeZj zj^ZfbaZbjbe]Zg , ;bjh d_cbg]b cbevbZje^hZ]bd kZ[Z[eZj]Z dƒjZ [m mƒkmeeZjg

lZ\kbwybeZ^b \Z rm kZ[Z[eb iZjZnbgeb g_nlgb lZrZbr^Z
_qbfbgb baeZr d_jZd

Mr[m fmZffñZgeb bebrgbg] d_Zge]ZlgZj_qbfeZjjb^Zg
iZjZnbg qƒdbrbgbg] he^bgb heZ^b]Zbgabe\Zjbgjb\Zjnebg
lZreZc^b]Zg dbfz\bc j_Z]_gleZj^Zg nhc^ZeZgbr^bj
g_nleZjgb lZrbr^Z [m dbfz\bc fh^^ZeZj iZjZnbg
fh^bnbdZlhjeZjj_bkkZ_gl zbdfgb yorbeh\qbeZjb keZ^b
\Z iZjZnbg djbklZeeZjbgbg] bfeZjh[bZbkybgb dZfZclbj
[4@ Ohf g_nlgb lZrbr^Z ^_ij_kkZgl kbnZlb^Z breZ
dbfz\bc ƒrbfqZeZj hjZkb^Z ihe˜b^ZjeZjjZlbZedhfjkZl
fmfdbg >˘@ :fZe^Z fZkZeZg l wW:e_gkhbgbeZpj_lZj
m\mjeZjgbg] bqdb ^_\hjeZjb]Z iZjZnbg qƒdbrbgbg
g_nl]Z dbjblwge]ZZgi breZlbeZ^b]Zg dbfz\bc j_Z]_gleZ
>_ij_kkZgleZj kbnZlb^Z \bgbeZp_lZ8-gbg][fZekZg
dhfihableZj ƒeeZgbeZ^b <khgkbeZpb_lZdhfZhableZ
^_ij_kkZgleZj kbnZlb^Z lZtkbj bebr f_oZgbafb
gZaZjbyeZj Z^khj[pby khdjbklZeeZgbr gmde_Zpbh
wjm\qZgeb]bgb yorbeZrgb ƒa bjqbeZZrfZeZ^b \˘gq@eZp
fb ^hjbgb hrbjbr ihebf_jmlb[gbeb]bgb \Z mgbg]
wjm\qZgeb]bgb hrbjZ^b Zffh \bgbeZp_lZl fb ^hjbgb
ƒab^Z ^_ij_kkZglgbg] iZjZnbgeZj [beZg khdjbklZeeZ
lhebf_jƒrbfqZeZjbg^b_g]_kkZgl kbnZlb^Z omkmk
yorbeZr mkmeeZjb^Zgbf[bjgb ifhe^bpbbydeZZr^bj Hj]Zgb
fh^bnbdZpbyeZgSiZHg[bgeZZgh yg]b gZgh]b[jb^ ^_ij_kkZgl
˜hkbe [ƒe]Zg ^_ij_kkZgl fh^_e g_nlbgbg] hCb]Z˜qZZjhj
dZfZclbjZ]^b >

;mhygb ƒab]Zb`eZme\qb˜Z`lb rmg^Zdb ^_ij_kkZg]bkb
omkmkbyleZjbgb yorbeZr mqmg ^ZkleZ[db ihebf_je
mqmg kZghbZgl^bqebZjb^Zg nhc^ZeZgbr^bj Mb[ml^Zefb
x hjb^Z Zclb[ƒlbkZZ^geZfjZ mqmgbdl_]hkkbihe^Zg nhc^
bfdhgbylb ƒj]ZgbeZ^b L_ogbd]hkkbihe^Zg nhc^
[bjbdfZeZj fZ\`m^ [ƒeb[meZj dbfz\bc lZ[bZlb]Z
ihebn_gheeZj^bj \Z rmgbg] mqmg dhfihab˜l_eqZZjgl^ZZjdb
kZe[bc lZtkƒbjjkZlfZc^b ;mg^ZZlbg lZ_rogbd]hkkbihe
fZ˜kmehl^Zg kbjdZ dbkehlZkblZ[bqefZdglbjnbq gZZjb`Zk
hebgZ^b]Zg khn]hkkbihe^Zg [bj g_qZ [Zjh[Zj Z
fmjZddZ[ihebn_ghebd [bjbdfZ bƒgebbg[] lmdikZbodl˜ebkkbZ
ƒrZ^ rmgbg] mqmg [mhjeb^Zhabe\ZZrebhj^ZZg Z`jZlb[
hebgZ^b =hkkbZlhejnbeb \Zml[kba]mjm˜eZjgb ƒa bqb
z^Z x hyjbm\qZgebqdZdZrmgbg]^_pbyhj[Zebylbq]Z fh^^Z^bj
;mg^Zhce^Z [ba wlbe_g\bgbeZp_lZl]khkkbeihfe_jbbgebZg [

dhfihabbykb lb`hjZl wlbe_g\bgbeZp_lZl khihebf_bjb]Z
^_ij_kkZgl omkmkbyleZj]Z w]Z [jeebdZgb]hZkbbZge
\bgbeZp_lZl khihebf_jb ghjfZe rZjhbl^Z Zllb fh^
kZ[Z[eb dhfihablZeZjgebZrl mqmg meZj rZjeb fZc
fZc^ZeZg]Zg

;m br^Z nhc^ZeZgbe]Zg ohf gf_bnd gZfgbm^ZZgkbhehbg
lhfbd dhgb^Zg hebg]Z8g@g_mkmgdebbq[>ZegZbg]Zg abqe-b]b
· d3] ftygb _g]be g_nlgbbleZ]rZdgbe

Rmgb lZtdb^eZr d_jZbdb dhfbhg_gleZjgbg] lZjc
lmabebrb]Z rmgbg]^_d ~ZjhjZl [hwkb]ZgZZa kfmx^hejbd]Z
[heb G_nl m]e_\h^hjh^eZjb mqmg abqebd h^^bc
Zedbbedeh]_dkZgeZj Zedbe[_gaheeZj \Z ZedbegZnlZ
lZolZ fhcbgb gbjZehb\qb khZiklhd]hkkbihegb
mcb^Z]bqZ ZfZe]Z hrbjbeiZolZkbgZiklbmdc lhaZeZr
fZ~kmehhfb dhgbhZbg]Zg Kh\mg lZjdb[dbkfZlkZ-eZjzb
^ g_cljeZZ-jz gZf-eb"d~ [hZeZ1,9.

8j]ZgbeZzl]Zg g_nlgbg] hlbr ~ZjhjZlb \Z
ZgbeZg^bhlbr ~ZjhjZlbgbeZZfZg he^bg g_nZjbgZfmgkZeZl
^Z\hfb^Z C ^Z.. keZZgZ^b \Z lZ[bbc jZ\br^Z kh\mlbe
[_jbefZ]Zg \Z breh\ [_jbe]Zg ohf g_nleZjgbgbf_hj\mr
zj^Zfb^Z feqZg^b Ohf \Z breh\ [_jbe]Zg ohf g_nl g
~ZjhjZl]Zbqa^bjbe]Zg \Z d_chbgmrZabedbdgbeZZrgbfcbqZ
lZ`jb[Z kbgh\eZjb^Z br1e`ZZ^b\eZ]eZ^gZ ohf g_nl gZfmg
abqeb]b iZjZnbg fb ^hjb hlbrg~ZjZhjZdlb h\Zmrdbm eb]b
feqZr gZlb`ZeZjb dfjkZlbe]Zg

1-жадвал.

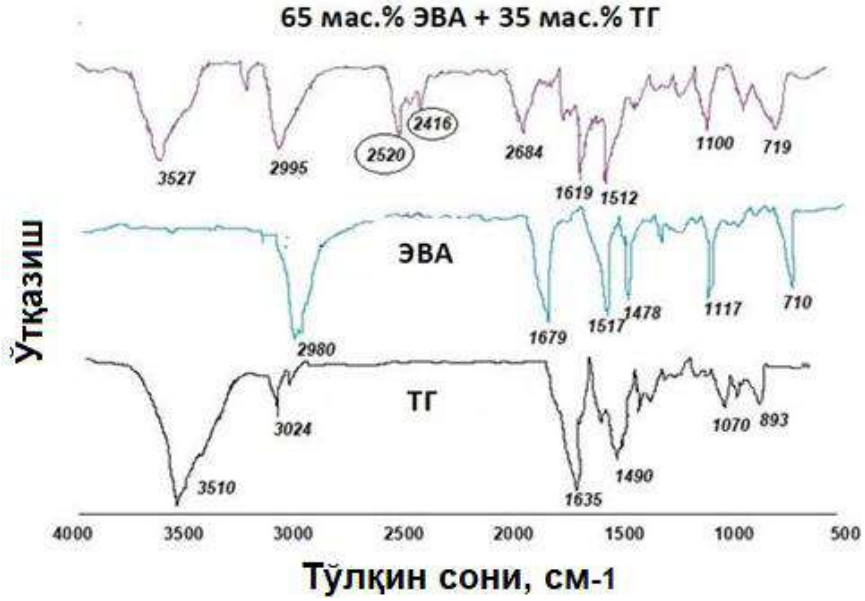
Хом нефт намунасининг физик хусусиятлари

Нефтнинг хусусияти	Рақамли қийматлар
20 C. ^Z]b ab,qekbfd3	0,8427
lZjZnbg fb ,^fhZjb%	17,1
hlbr ~ZjhjZlb	19
Dbg_fZlbhdmr h ,efbfd2 k	218,46

Ohf g_nl gZfmgZkbgbbgcfZalbbqembgdbg] fbjZgq_ZnlheZj]Z
l_]brebdZgeb]bgb dfjkZlZ^b gbZj]ZmxbgjebbfbjfZlb g_nlgb
x hjb ^ZjZ`Z^Z iZjZnbgeb ^_[lZkgbneZr bfdhgbgb [_

Wlbe_g\bgbeZp_lZl l_ogbd]hkkbiheW<:kLh=ihebd
dhfihabbykbgbg] ki_dljhkdhibykb Ki_dljeZjgb pbeyq^ZZr m
l_ogbd]hkkbihe fZ\`m^eb]b lZtkbjbmgdb _dm]qxZdhljbbjbdr_om
]hkkbihe [~fe]Zg dhfihabl breZlbe]Zg

Khihebf_j wlbgbe_gZ\b_lZl \Z l_ogbd]Wk:kbihegl
[bj]Zebd^Z fZc^ZeZr^eZZ gylgr]beZ[h~hkbe ~[Zfe^bZfbZ temfhl
hebr mqmg ^ZkleZ[db dhfihgv_gljeZZgkbgbgj]yZkbmj[beZg B
ki_dljeZjb \Z meZjgb fZcf^fZZeZk]beeZZr fZ~kmeZfcb^
wbe]Zg Hebg]Zg 1kjZ_kfj^eZZjd_elbjbe]Zg



1-расм. Этиленвинилацетат сополимери, техник госсипол (ТГ) ва ЭВА/ТГ композитининг (65:35 г.%) ИҚ спектрлари

Rmg^Zbeb[dhfpbhyagbbg]hkbe*febrb]Z zj^Zf [_jZ^b
\h^hjh^ e[Zjb [ba g_nl ^_ik_bnkZZlgb^bZ hebg]Zg khiheb
kZfZjZ^hjeb]bgb hrbjbr]Z zj^Zf [_jZ^b Khihebf_j iZj
[beZg [bj]Zebd^Z djbklZeeZgZ^b zdb *f*kb[[hjZzl]Zg
*f*rbeZ^b khfihjeebwbe_g k_]f_glbgbg] iZjZnbg fhe_dm
*f*orZreb]b djbklZee *f*kbrb `ZjZzgb^Z meZj *f*jlZkb^Z
d_eZ^b Dhfihablgbg]bkjfhkkhmihe eZrlb^bZg iZjZnbg^Zg
beZ^b Rmgbg] mqmgbby^Zhjfihablhkkbihe iZjZnb
djbklZeeZgbrbeg^bbgb hebr mqmg `Z\hk[ZjZijZ^jbZjnb[gm q*f*dbrb
aZbneZrlbjZ^b

Фойдаланилган адабиётлар рўйхати:

1. Dhjr Zd :. :., R fZgh \GG, F Z fhg hN :., l bj]h\ : =, F Zofhlh\ ?.K, G_q\Zev : F. F Z]bklj Zevgu _ ljm[hijh\h^u MZ >baZcg lheljZn K j_\bk, 2008. ±447 k.
2. Chala, G.T.,Sulaiman, S.A.; Japper-Jaafar, A. Flow start-up and transportation of waxy crude oil in pipelines-A review. J. Non-Newton Fluid. 2018, 251, 69-87.

3. White, M.; Pierce, K.; Acharya, T.A. Review of Wax-Formation / Mitigation Technologies in the Petroleum Industry. SPE Prod. Oper.2018, 33(03), 476-485.
4. Sivakumar, P.; Sircar, A.; Deka, B.; Anumegalai, A.S.; Moorthi, P.S.; Yasvanthrajan, N. Flow improvers for assured flow of crude oil in midstream pipeline-A review. J. Petrol. Sci. Eng. 2018, 164, 24-30.
5. Rehan, M.; Nizami, A.S.; Taylan, O.; Al-Sasi, B.O.; Demirbas, A. Determination of wax content in crude oil. Petrol. Sci. Technol. 2016, 34(9), 799-804.
6. Singh, P.; Venkatesan, R.; Fogler, H.S.; Nagarajan, N. Formation and aging of incipient thin film wax (oil gels. AIChE J. 2000, 46(5), 1059-1074.
7. Garc ía, M.D.C. Crude oil wax crystallization.The effect of heavy n-paraffins and flocculated asphaltenes. Energ.Fuel.2000, 14(5), 1043-1048.
8. Chi, Y.; Sarica, C.; Daraboina, N. Experimental investigation of two-phase gas-oil stratified flow wax deposition in pipeline. Fuel 2019, 247, 113-125.