

M>D550.348.436(268.53)

lkh\ =.I .

S? A H N E H E O

GZ hkgh\ g[he_ gZuo Zguo ih kbevguf afelykgbyf gZ revn_ fhj
EZuo uégZ fbdjieblZ .< hdhglmpbo _ kckfhZbguo ahgZ ih[eZ
ghjzvgh

Jkēgb_ ipgh\ b nhvgu_ 6zbf
k ko khbo iñsbo im[ebdzyo , \ lhf qbke_ b ih eñfhkdhfm
jbgm , ip iñzbb kckfheh]bqkd]h fñzñ Vaj ipñky
ipgpbiZ «emqr_ fgvr_ , Z emqr_». Bfggh ihwlhfm gZ dñ ùghkbebkv wibpglj
afelykgbc, kemqbrboky ihke_1964]hZ dh]Z kly ùbqkdbo klzpbk klzñ
ñklñqgh ùegghc, b gñz ùohñlv dñ]b Fñgñh]h
kckfheh]bqkd]h pglZ (FKP). Ba [he_ zgo kh[ulbc ùeazkv ebrv kñ_

b ihwlfm hklhqqgh gzh a7bklh7zgu_ . AZmd7z7guc 7ggbc
iph^ , ihfbfh afelykgbc, a7bdkbh7zguo lekckfbqkdhc klyx ,
i7b7zebkv b [he_ ke7u_ b khkf ke7u_ kh[ulby , ihemqgg_ ih 7b7z
7bhg7z7guo b wdki7bphgguo kl7zpb_ . < g7lhysc im[ebd7zbb hkmskl7g
gkdhevdh bghe ihoh^ .

Khf7klgh_ i7b7zgb_ ko afelykgbc, fhgklh7jny kckfneh]bqkdb_
hklb7gby \ 7bhg_ , 7 \ d7zhc -lh kligb bkd7zgh_ , b bam7zvgh_ , b ih kmskl7m
i7b7zgb_ h 7h kckfbqghklb, h[mkeh7eggh_ 7adbfb 7zebqbyfb mh7gy
kckfneh]bqkdhc bamqggghklb 7zebqguo mq7ldh\ . Dhf_ 7h]h, ohly ke7u_ b kbevgh_
afelykgby \ d7f dhgd7ghf fkl_ , d7 7feh_ , yeyky ih7mdlhf h7h]h b
7h]h \ 7dlhg7bqkdh]h ihpkkZ , 7f_ g_ fg_ , h7z 7zpbx 7zghih7dh7u
keh\ b [ehdh\ eblhkn7 , kmskl7ggh hlebq7zoky ih khfm 7heh]bqkdhfm
klh7gbx , 7h[eggghklb , m7m]bf khck7z . W ihyeylky \ 7zebqbyo
77egby afelykgbc ih e7z b 7bd7z, nhd7z7guo fo7z7af7z , kdhhklyo
b 7gb g7zhiegby g7z7gbc. Ihwlfm \ g7lhysc kl7_ a7bkl7h gbf7z_ gZ
bgnh7zbb ih kbev7uf (7z7blm7 > 4) kh[ulbyf aZ iph^ 1964-1996]]. AZ[he_
7z7bc iph^ 7de7gu 7hevdh g7[he_ kbev7u_ afelykgby k F > 6. ky b7z7ky
ih afelykgbyf bgnh7zby , h7h[7z7z \ 7amev7z 7z7zbb 7z]h ihoh7z ,
i7b7z7z gZ 7k . 1. H7v7uf h[7ag7z7gf 77egu afelykgby ihke_1991
7h7[hev7z q7lv d7lh7u h7kmlk7h7z ih7msbo im[ebd7zbyo .

7z_ g7z 7kd7z7z7v fukev h 7hf , q7h ih7he7b_ 7kly 7bnh]gguo
ihpkkh\ gZ revn_ fh7 E77uo fh7 ip7klb d h[7h7zbx a7v eb]h
fbd7hieblu, eb]h kbklfu 7zknh7guo 7zehfh\ 7biZ Ribp]7gkdhc [7bkh\ ,
1996; Avetisov, 1993a; 1999]. D7 77h ba 7k . 1, ihke_ h7nbev7h7zby ke7uo kh[ulbc b
mq7z afelykgbc ihke7bo el m_ kcq7 fhgh 7hh7lv h[hq77hf ih7e7bb
\ p77z7ghc q7lv revnZ E77kdhc fbd7hieblu (EFI). G7[he_ m7gh
ihke7ky _ k7z, hklhqq7z b 7z 7z7pu , fg_ g7z - a7z7z .
G77ky 7 7h7guo khqeggby: \ k7hc q7lv revnZ ip7gh gZ 126°? b gZ
7 \ 7m[_ ;mhj -O7. H k7h]h 7h7gh]h khqeggby 7z7pZ b7 gZ 7h -hklhd ih^
hkl7f m]ehf d ihklb7zbyf h7gh7guo kl7ndlm7h -7dlhg7bqkdbo wef7gh\ revnZ . <
7hg_ 134-135°? hgZ ih7h7z7z gZ 7 b ly7ky 7hev ahgu khqeggby 77ey7uo
a7v [7gh]7 b 7^ ., 1974; =heh77adh_ kl7h7_ ..., 1984] ;evdh7dh -
Kylhghkkdh]h ih]b[Z (;KGI) b ;evdh7dh]h ih7ylby ip7gh 7h 75°N. >7_ ,
ih7e7kv \ 7hf \ g7z7gbb ip7gh 7h 73-73.5°N, hgZ ih^ hkl7f m]ehf
7kdZ 7^ kl7ndlm7h -7dlhg7bqkdbo wef7gh\ , b7zbo kh -a7z7z_
ihklb7z_ , Z a7 7h7h7z7z gZ 7h -a7z b 7kl ihklb7zby wlbo kl7ndlm7
hklb]Z 7m[u ;mhj -O7. X7z 7z7pZ EFI kl7ndlm7h kh7z k Egh -
L7z7kdhc ahghc ih]z7bqguo ih7ylbc b m7gh ihke7ky 7h a7z7z]h
ih]y 77dkdh]h a7z . A7z7z 7z7pZ EFI hklhqqgh g7z 77eylky
e7rv \ khc k7hc iheh7g_ . A7v hgZ b7l \ pehf kh -hklhqqh_ ihklb7z_ ,
ygh gkh]e7gh_ ihklb7zbyf bak7guo a7v kl7ndlm7 : L7bnfbh7kdh]h ih7ylby ,
Mklv-Egkdh]h ih]b[Z , 7z7b7g7z .

7b7ghklv md7z7ghfm \ g7z_ kl7v ip7pbim a777eZ h7d7z7ky hl
bgnh7zbb ih nhd7z7guf fo7z7af7z , ihemqgguf fh7hf 77u klmie7bc
ih7ev7guo he7 . W ih7egby 7y 7z7bqkdbo afelykgbc, d7 ihd7z7z
77bdZ , kvfZ gh7hag7z7guo , b 7gby 7zebqguo 77h\ kmskl7ggh hlebq7ky
7h] hl 7h]Z E7 25-30 7hfm g7z ba-aZ d7z]h 77b7b]Z kckfneh]bqkdhc
bgnh7zbb ih]gu_ 7gby [ueb 7h7mklbfu b 7z gh]oh7dfu 7y ihemqgby
77u i7b7zgb_ h 7h7g7z7d_ :7z7bqkdh]h 7bhgZ . < g7lhys_ 7y h7b
7hevdh ghkyl im]z7p7m b 7zgh7q7gby. 7f_ g_ fg_ , d7 gb kl7zgh, b kcq7 kl7egb_
gd7lh7u bkke77ec h[ya7evgh kd7z7 kh_ kh[7ggh_ keh7 a7z7zyl_ bo
ieh7lv nhd7z7gu_ 7gby ip dhebqkl_ ag7z] 77u klmie7bc fg_ 15 [7d]
7z7kdh]h n7z7gh]h bgklb7mlZ 7heh]bb b fb7z7z7guo k7m7h\ BGR].

gghc hnl_ ipegu ebrv hiegy flhf lgahZ fhfglZ
pglhbZ LFP) [Dziewonski et al., 1981], \ agblevgh fgvrcligb ihgu_
eygbx dklZ aabk keuo , dZ ieh , iuo klmiegb , fzhqkeggkklb
jklbjmsbo klzpb , gzhfghklb bo zbfmlzvgh]h Kiegy
G[hevr_ dhebqklh bgnhfzbb ihemqgh ih hklhggc lzp_ EFI , [5
hiegb kh]ekzhgh E ghfzvgh -k[hkhuc fozbaf k]hpahglzvghc hkvx
Klygy h]h]hgzvghc iklbzbx lzp[:lkh\ , 1996; Avetisov, 1993a; 1999].
H ghzvgu_ iekdhklb bfk km[fbhgzvgh_ iklbz_ , khiz_ k
ihklzbf lzp[fbdhieblu b ueyfuoa kv kljndlmgh -ldlhgbqkdbo
wefglh\ , b m]eu izby 40-50°.

Bgklggh_ igb_ ey ghc lzp[:lkh\ 1996; Avetisov, 1993a; 1999]
lZ_ Zh [ebadbc d ghfzvgh- k[hkhfm fozbaf k hkvx Klygy h]h]hgzvghc
lzp_ b khllklggh iklbzbx ahgu Egh- LZfukdbo ih]zbguo ihgylbc .
Ghzvgu_ iekdhklb bfk iklbzby 114° b 315° b m]eu izby khllklggh 36°
b 56°. Gzm k hfbgjnsc k[hkhc khklzysc mklzby gagblevgh_
]hpahglzvgh_ kdhevqb_ , khllklms_ ehklhggfm kb]m , l... gbx
fbdhieblu ih qzhc klzd_ Kh]ekgh kmsklms_ ih wlhfm afelygbx
fzhkckfbqkdhc bgnhfzbb , 5-[zevgy bahkcklZ bfl_ hzvgmx nhfm k [hevrhc
hkvx, h]glbhggc gZ kh -az_ h -hklhd hev iklbzby kljndlmj
h bsky igb_ ey azhc lzp[:lkh\ , 1996; Avetisov, 1993a;
1999] lZ_ ihdzh hfbgjnsc ghfzvgh -k[hkhuc fozbaf k gagblevghc
kb]hc khklzysc . Km[]hpahglzvgy hkv Klygy bfl_ iklbz_
ihfmlhgg_ fm iklbzbyfb gzhky lzp[fbdhieblu b
ihohys]h kv Mklv-Egkdh]h ih]b[Z . Ba no ghzvguo iekdhklc hgZ bfl_
ihklz_ 8°, khiz_ k iklzbf lzp[, b m]he izby 40° ih^
fbdhieblm , Z hZ - iklz_ 142°, khiz_ k iklzbf Mklv-Egkdh]h
ih]b[Z , b m]he izby 59° gZ h -az_ Reb aZ iekdhklv]uz_ ipylv imx
ghzvgmx iekdhklv, lZ_ ihemqbf gagblevgh_ ehklhgg_ vgb_ , l...
gb_ fbdhieblu ih qzhc klzd_

hgh , qlh \ pehf EFI , hdjnggy kh ko klhg hklzqgh zbgufb
kckfbqkdbfb ahg, hegZ bkiuluV agblevgu_ ldlhgbqkdb_ gmadb ,
dhlh_ fh]ml yVky \ hkegguo ahgZ gmlb fbdhieblu. Ih]bf
wlhfm fh] kemblv afelygb_ k fglmhc 5.1, ihbkrf \ ahg_ ikqgy
zehfZ Ezy b]kbjmf]h pihqdhc hklzqgh kbevguo afelygbc zehfZ
az- kh -az]h iklbzby , ih]b]hky hl h. Klhe[hc b ihqlb \
klh_ k gb . lzf_ wlbo gzybc yeyky b hklzqgh fgh]hqbkeggu_
keuo_ afelygby \ iez_ fbdhieblu (gZ bk . 1 g_ ihdzu) .
Gzbfky \ imx hq_ uhf yeyky ihegb_ h lhf , qlh gmlb
ieblu hegh hfbghV]hpahglzvgh_ kb_ , dZ apby gZ h]yex_ EFI
]hpahglzvgh_ Klyg_ . Zh igb_ nhdzvgh]h fozbafZ mihfygmlh]h ur_
afelygby lZ_ Zh ghfzvgh -k[hkhuc fozbaf k gagblevghc kb]hc
dhfihgg]hc. Ghzvgu_ iekdhklb bfk iklbzby 31° b 175° b izby
khllklggh 65° gZ h -hklhd b 29° gZ az_ . Iju_ lhgc ghzvghc iekdhklb
ohjrh khiz_ k izb_ zehfZ Ezy , mklzhggufb ih kckfbqkdbf
zguf FHL [hl_ BGR, > 2000]. Ih -bdfhm , keml_ kqblV , qlh kv revn
fhj Ezo \ gzhys_ fy gzhbky \ bf_]hpahglzvgh]h Klygy,
dhlh_ ih]bl d]kdbzbx eblhnguo [ehdh\ \ km[rh]ghf gvgb .

DZ bgh ba bk . 1, zehf Ezy , dhlhuc , dZ iehV [> 2000; Hinz et
al., 1998] k gZz_ klyby]nlh]gguo ihpkh\ gZrevn_ fhj Ezo (izhp_)
h k]h_ fbhpgZ iebhpgZ yeyky]ezuf ldlhgbqkdbf wefghf Klygy
(lfgl_) , \ gzhys_ fy izbqkdb_ kckfbqg . Hvgu_ wibpglj
hlfqky ebrv \]h , ih- bdfhm , kuo_ hkegguo mqldz_ , Z bfggh , \ fklz
ikqgy k]]bf_ zvgufb gzhgbyfb . Lh_ kzh_ fhgh kdz_ h zehf_

, dhlhju , dZ iheZ gdhlhju_ bkkehZb [> 2000; Fujita et al., 1990; Hinz et al., 1998] b k qf fhgh kh]eZblvky , [ue gZ ijo klZyo jnlh]gaZ lZknhfuf Zehfhf , kyamsbf hkb jlygby \ Zbckdhf km[[Zkcg_ b gZ revn_ Kk- kklhdZ Zbb.

Ihfbfh kckfhZbguo ahg, kyaZguo k EFI , \ iZ revnZ fhj EZuo b lh h[egby h[Z gZk[y gbfZb_ 6 afelykgbc d kh - b jh - aZn hl h. GhZ Kb[by . Ih_ ba wlbo afelykgbc (kZn_ gh_) [ueh aZkljhZn ebrv \ dZ 1973]hZ . < Z 1974]hZ wdki]pbhggufb klZpbyfb jkkljhZbkv lh Zjhdh , \ ihkeZsb_ 1975 b 1976]]. \ wlhc ahg_ lZ_ nbdkbjZbkv keZu_ lheqdb [:lkh\ , 1975; 1979; 1996]. NhdZvgh_ jgb_ ey wlh]h afelykgby flhf ijo klmiegbc [:lkh\ , 1978], ihkeZsb \ hkghghf ihfgh_ j]bfb bkkehZyfb [Fujita & Koz'min, 1992], Zn kb]huc foZbaf k gagZblevghc a[hkhc dhfihgglhc. Ihqlb jbdZvgu_ ghZvgu_ iehkdhklb bfeb km[fb]hgZvgh_ b km[r]hlg_ gZgby . IhgZvgh, k mqlhf Zegby keZuo afelykgbc nev km[r]hlguo iheb\ Ghk[b]kdbo hkljh\ , k Zuhf hlhZeyeZv lhZ ghZvgZ iehkdhklv . Ih]db kyauZbkv k Zydhc gZgbc, jgjmfu_ \ ahgZ khfjggh]h jnlh]gaZ , h dhlhju]hh]ehkv ur_ . Zn kcqZ ipoh]lky hlZ ihqlgb_ ihc ghZvghc iehkdhklb (m]he iZby 80° gZ aZ, bfc ihklbZb_ nev gZgZky km[fb]hgZvghc ebgb wibpgh\ . < gZlhy_ fy]mgh kdZv qlh-eb[h hiegg_ h ldlhgqkdhc iph^ wlhc]miu afelykgbc. Fhgh ebrv lhevdh hflblv , qlh hgZ lZkbjnl_ hklhguc [hj ;eZhgkdh]h ih]b[Z [=heh]bqkdh_ kljh_ ..., 1984] - gh]h hllgby Zihgh]h kZ_ Ghk[b]kdh]h ih]b[Z (jZ ih K.K. > 2000)], h[zhZb_ dhlh]h kyauZky ihkeZbf k jnlh]gahf \ dhgp_ iha]h feZ - izhpZ

Gkdhevdh afelykgbc hlfqky \ zhg_ hklhggh]h ih]y LZfuZ b ihebZ Kphc Afeb . Fhgh ihheblv , qlh hgb hagbdZ \]mevlZ Oklby gZgbc, ijo ba fieblguo ahg Zbckdh]h km[[ZkcgZ b fhj EZuo b gZevZboky gZ eblhknj , ZbbabhZgmX khfjggufb jbdZvgufb Zgbyfb .

=em[bgu **hpgg]**

G gh[oh]bfhklb h[tykgylv , qlh bgnhfZby h]em[bgZ]bihpgh\ afelykgbc bf_ [hevrhc]heh]bqkdbc bglk. < lh _ fy wlh iZj , hieyfu, dZ iZeh , gZfg_ lhqgh. k ih]Zu ZqLZ iehgby]bihpgh\ gZV bkihevamk klZklbqkdbc ihoh^ , iehguc =. > n]pkhf . H aZevZy \ jgbb kbklfu mZgbc , gbaklgufb \ dhlhju yeyky kdh]klv kckfbqkdbo heg b iZu]bihpghZ : r]hlZ 3, he]hlZ , ZmbZ G b fy \ hqZ T o, a baklghe ebqbghe - gZggu_ jgZ klmiegbc kckfbqkdbo heg . LZ dZ FKP h[h[sZ Zgu_ fZkbfZvgh hafgh]h qbkeZ fb]uo klZpbc, wibpghj bfk hklZqgh ohjr_ hdjngb_ klZpbyfb ih Zbfmlm b Zklhygbx . ;eZyZ wlhfm, hiegb_ dh]hgZ wibpgh\ hdZuZy hklZqgh gZuf . < lh _ fy \ ih]Z_ , bkihevamfhc FKP , g_ ipZy hkh[hc agZbfhklb bgnhfZbb hl [ebadbo d wibpghj klZpbc , qlh hlZy gZ lhqghklb hiegy]em[bg]bihpgh\ . Ihwlhfm aZlmx hdhgZevgh_ jgb_]ihegyly ip]em[bg_ nbdkbjZghe gZ hkgh\ j]bo kZbc , beb k bkihevahZf ihbahevgh]h agZgby, aZdhlh_ , gZfj , ipgbfZy hkZggZ lhesbZ afghe dhj (\ aZkbfhklb hl lbiZ dhj 33 df beb 10 df) beb ihehgZ lhesgu b l.i.

Kmsklml_ gaZkbfuc kihkh[hiegy G ih Zguf hghe klZpbb gZ hkghZbb Zghklb jg klmiegbc hegu , hZghe hl gZhe ih]ghklb \ zhg_ wibpghZ , b iyfhe hegu : ey ihhevguo heg tp - tp. W hiegy

h gbfz_ , keb bfkky ih dzgc fj lp khjeZmsboky
gZegby. D khZgbx , ba-aZkehghkly uégby hegu p dhebqklh bo gebdh
b g iürZ nec ihpglZ hl h[s]h qbkeZafelykghc . >ey revnhc qZlb b
évlü Egu hgh khklZeh 13 hiégbc (pk . 2, 3). k_ ihemqggu_ agZgby
ihiZ \ bZhg 6-24 df , qlh ihahey_ hlgkly bo d gmlp dhjuf .

DZ_ kckfbqkdh_ kh[ulb_ oZpamlky Zhf hqZZ (ahgu
ùkh[hgby kckfbqkdhc wg]bb) b Zhf h[eZlb ih]hlhd afelykghy
(ahgu gZniegby wg]bb). Ih kh]dmighkly kckfbqkdbo kh[ulbc, h[t]gyfuo \
kckfhZbghmx ahgm lZ_ uéyky h[eZlb ùkh[hgby (kckfhZbguc kehc)
b gZniegby wg]bb . >ey afelykghc k fZgblmZ > 4 h[eZlv gZniegby wg]bb
h]ZbqbZy kpm dhèc dpklZebqkdhc qZlb afghe dhj ; gb_ wlhc]Zpu
hafhèu_ ZZlu ihehgby hqZZ [mfl hiéylvky i] k]h]h
]bdZvgufb ZZb , b, kenZevgh, fZgblmhc . Z \ agZgby]em[bg

ihim aZfshgklv hkqgh]h qoeZ , l. ay\ aZmhgv hlkqZ dhx dhgkhebbhzhc qZb dhj , ih fbgfzvuf b fzkbfzvuf agzbyf G_{bki} ihemqbf jem[bgu dhb b ihru kckfhzbg]h kehy ey afelykbc k fZblmZ > 4: 5-6 df b 20-21 df khhlklggh. Fshgklv kehy ey wlbo afelykbc khklzeZ , lzf h[zhf , 14-16 df , qlh gZ hkgghbb kmsklmsc aZkbfhklb [R[zb , 1971] ihaeyl hpgblv fZblmfn fzkbfzvgh hafhgh]h afelykby - 6.5. Ezh kefl hlflbv , qlh k_ kmsklmsc aZkbfhklb fm ebqbgc afelykby b zfb hqZ yeyky wfibpqkdbf , hkgghzgufb gZ gZnguo bafgyo iZh\ zuZ . < kbem h[tdlbguo ipqbg wlb bafgy uiheggu \ kckfhzbguo ahgz , kyazguo k dhg]glgufb]zpbZ ldlhgbqkdbo ieb ,]^ hfbgjmsbf yeyky]pahglzvgh_ kZ_ . Ih hlghrgbx d gfm kZ kihkh[gZ bkiuluV]hzh [hevr_ ba[ulhgu_ gZ]gy , qf ip Zlygbb beb kb]_ , ihwlhf kklggh ihehblv , qlh ip zuo iZh kckfhzbg]h kehy (fshgklv , jem[bgZ aZ]by hlghkblevgh dhb hkqgh]h qoeZ) \ dhg]glguo kckfhzbguo ahgz ebqbgZ fzkbfzvgh hafhgh]h afelykby [m^ [hevr_ , qf \ b]glguo . < kyab k wlb , agz_ fZblm^ 6.5 , kdhi klh , yeyky gkdhevdh aZrgguf . GZ bZ]_ aZkbfhklb F = f(G_{bki}) (pk . 4Z) , h[ezh lhqd ebl ur_ h]b]c dhc , ihdzuZ iZvgu_ gZ]gu_ agzby fZblm^ ey dhgd]guo jem[bg]bihpgl]h beb fbgfzvuf_ jem[bgu]bihpgl]h (hlqZ hl dhb dhgkhebbhzhc qZb afgc dhj) ey afelykbc dhgd]guo fZblm^ . W d]Z fh] [ulv ZhdkbfhZ mZgyfb :

$$G = 8.96 F^2 - 81.9 F + 192.3$$

$$F = 3.66 + 0.23 G - 0.0063 G^2$$

KZgb_ ihdzuZ , qlh kgyu_ k dhc agzby F ey fhj EZuo (b]glgZ ahgz) gb_ gZ ebqbgm ihyZ 0.3-0.7 , qf ey kckfhzbguo ahg Kfc :abb \ pehf , Ma[dbklZ DZZ , (dhg]glgu_ ahgu) [AZ] b dheZ , 1975; Meh] , 1988]. Bkohy ba wl]h , ip hpgd_ ebqbgm fzkbfzvgh hafhgh]h afelykby gZ revn_ fhj EZuo fhgh hklzhblvky gZ agzbb F = 5.8-6.2. >Zgu_ h jem[bgZ]bihpgl]h afelykbc b bo fZblmZ E hihegblevgmx bgnhZbx , dhlhZ hegZ mqbluVky ip ihbb kljndlmgh - ldlhgbqkdh]h zhghZby . >ey hlfgguo gZ revn_ fhj EZuo afelykbc k fZblmZ 4.5-5.6 rbpgZ hqZ (ihlygghklv ih zbx) khklZyl 6-7 df , k mqlhf m]eZ zby ghzvghc iehkdhklb 40°-50° ihemqbf ih]bdz 4-5 df ; zu ahgu ih]hlhb afelykbc iurZ zu hqZ \ 3-3.5 Z [Jbagbqgdh , 1976; Meh] , 1988]. Reb lZ ipgylv hZzgh_ i]bdhc mkeh_ , qlh afelykby k fZblmZ >4 ihbkohyl \ dhgkhebbhzhc qZb dhj , fhgh keV uhû h hafhghc fshgklb hkqgh]h qoeZ \ zhg_ afelykby. LZ ,]miiZ ba lp afelykbc d km hl h. ;evdhkdb , k] dhlhjo Z bfk jem[bgu]bihpgl]h 6 b 8 df b fZblm^ khhlklggh 4.6 b 5.5 , hghagZgh g_ fh] [ulv kyaz k ;KGI ,]^ ih kckfbqkdbf Zguf [>Z 2000; BZ b^ . , 1989] fshgklv qoeZ hklb]Z 5 df . M mqZhd kefl hlhleylv k ;evdhkdbf ihgylb_ , bxfb fbgfzvumx fshgklv qoeZ . :gzh]bqgh , kemqbrky k] -aZ_ afelykbc_ k G = 7 df b fZblm^ 4.7 lZ kefl hlgklb d ahg_ k fzhfshguf qoehf , qlh kl^ ih^ khfgg_ ihhegb_ kZ :gbkbgkdh]h ih]b[Z (fshgklv qoeZ h 10 df) , dZ wlh ihdzh gZ gdhlhjo kljndlmgh -ldlhgbqkdbo kofZ . Ievguf iklZylky fgg_ Zh]]heh]bqkdhc dZ gZ ebklv L-51-54 , dhlhjo_ ihly]bZ kZ kklhgh- EZkdh_ ihgylb_ . Lhgh lZ k mqZdhf afelykby \ pglzvghc qZb revnZ (3 = 75.95° b = 125.1°) k G = 11 df b fZblm^ 4.9 hegZ kyauVky g_ hkV ahgz Hhchckdh]h ih]b[Z (fshgklv qoeZ 10 df) , Zhklhgh_ djeh Mklv-Egkdh]h ih]b[Z

(fhsghklv qoeZ g_ [he_ 4 df), dZ wlh ihdZgh gZ lhc _]heh]bqkdhc dZ . Gevay g_ hlfiblv ohjr_ khiZb_ kckfheh]bqkdbo b kckfbqkdbo [Hl BGR]) Zguo ih Zehfm EZ . Kckfbqkdb_ Zgu_ h k[jkhhf ebkl]bqkdhf Zehf_ , uihelZky gZ jem[bgZ 12-15 df, mggh ihZky lbihf nhdZvgh]h foZbafZ , jem[bghc]bihpglZ b iZb lhjc ghZvghc iehkdhklb (Zbfml ihklbZby 175° b m]he iZby 29°), mklZheggufb ih kemqbrfinky aZv afelykgbx .

D khZgbx , gñklZhd jem[bgghe kckfbqkdhc bgnhfZbb aZnyl hafhgmx bñlbnbdZbx ahg hqZ\ afelykgbc k ZbpZ b kehymb \ dhgkhebbhZghc qZb dhj . Afelykgby k G = 21-22 df \ Zhg_ evlu Egu kh]eZgh [:lbkh\ , 1991] fh]ml [ulv hlkggu d gbaZ dhgkhebbhZghc qZb afghe dhj . :gZ]bqgZ ipyadZ kdhj k]h fh_ [ulv keZZ b ey afelykgbc k jem[bgZ]bihpglh\ 23-24 df gZ Zbpb [IbkdZ b f ., 1997, Hl BGR]. Reb mqklv , qlh byyy ZbpZ kckfhZ]bgh]h kehymb afelykgbc k fZblmZ > 4 ebl gb_ jgc Zbpu ahgu ihñlhdb afelykgbc (dhymb dhgkhebbhZghc qZb dhj) gZ 5-6 df (pk . 4Z), b iñehblv lZhc _ Z\ ey gbgbbo Zbp mdZguo ahg, ihemqbf ihehgb_ ihñru ahgu ihñlhdb afelykgbc gZ jem[bgZ 28-30 df, 1. .]^ lh \ Zhg_ ZEZ F beb gihkñlggh ih^ gbf [:lbkh\ , 1991; =hehZgdh_ kljhg_ ..., 1984; bkdZ b f ., 1997].

ghc qZlb aAbb fhj EAUo (Im[Z;mhj-OZ) baklgu hiEgby
 jem[bg]bihpglh\ keAUo afelykgbc, aZklbhZguo \ ihpkk_
 wdkiBpbhgguo kckfneh]bqkdbo gZgbc k gZfgufb (h[sZ ihheblevghklv
 = 7 fky\) [:lkh\ , 1975; 1979; 1996] b hggufb (hdheh fkyZ) [DhA b f ., 1994]
 klZpbyfb . =bklh]fZ , gZ dhlhjnX ugkgZ ky bfyky ih wlbfgZgbyf
 bgnhfZby (pk . 3), fhgklbjml hqbgH ih[eZb_ [ebaih]ghklguo
 kh[ulbc (1-8 df), ihEysZ qZlv dhlhjo ihbahreZ \ hkZqghf qoe_ ,
 kmsklggh hlebqZky ih khbf mijn]bf khcklZ b [ehdh]klb hl
 dhgkhebbhZghe qZlb afghe dhj . IhkeG h[klhylevklh ihEyl
 kipbnbdm wibpglbb keAUo afelykgbc, bo ihlhjfhklb b hkh[ggghlc
 ldhgbqkdbo ihDd , qlh ihE hEghklv ZbahZgh]h gZb
 Zevgh]h Zkfhlgby kbevguo b keAUo kh[ulbc. Fgvr_ , gh k_-lZb hklZqgh
 [hevrh_ dhebqklh keAUo afelykgbc nbdkbjnlky h jem[bg ipfgh 26-27 df ,
 l._ gb_ ihhrU kckfhZlbgh]h kehy, mklZhegg]h ih bgnhfZbb h kbevguo
 afelykgbyo. W kklggh, lZ dZ keAU_ kh[ulby bfk fgvr_ Zfu hqZ
 b khhl]klggh h[eZlb ih]hlhd . HqZky gkdhevhd keAUo afelykgbc gZ
 jem[bgZ h 40 df b [he_ (ihkeG_ gZ]bklh]f_ g_ mdZzu). Fhgh iheW , qlh
 kZ gZ wlbo jem[bgZ gZhbky \ hklZqgh ieZlbqghf khklhygbb b g_ kihkh[gZ
 gZebV agZblevgu_ gZgby.

DZ bgh ba pk . 4[, gkdhevhd [hevrZ , qf gZrevn_ fhj EAUo , fhsgklv
 kckfhZlbgh]h kehy mklZbZky \ ahg_ iphZ hl Zbckdh]h km[[KkgZ d
 revnm : h 20 df . M nZl m_ kZ ih k_ kbtevlml h hafhghklb
 hagbdghgby aZv [he_ kbevguo, qf gZ revn_ , afelykgbc . >j]hc
 hkh[ggghklv kckfhZlbgh]h kehy\ ahg_ iphZ yeYky agZblevgh [he_]em[hdh_
 aZ]Zb_]h ih kZgxb b k revnhf (gZ 10-12 df), b k hdZbqkdhc qZlvx (gZ 4-6
 df) (pk . 3, 4[). kafhgu lp ipqbgv , dZ ba dhlhjo , kihkh[gZ ipklb d lZhc
 kblmZbb:

v [he_ ih]mnggh_ ihehg_ bklhqgdZ gZgbc (kckfh]ghjml]h
 kehy). IhemqZy , qlh dhEY]h (beb ihhrZ ahgu gZniegby gZgbc) aZK
 aZv gZ jem[bgZ g_fg_ 40 df ;

v ihurggZ kldhklv Dgbo 10-15 df dhgkhebbhZghe qZlb dhj , \
 imevLZ qlh ZydZ gZgbc ihbkohbl \ [he_]em[hdbo ahgZ . kafhgh, qlh
 bfggh wlh h[klhylevklh ijyklml h]zhZbx gZ revn_ fhj EAUo Dghe
 lgZvghc]Zpu iebl b ihDgxb gZk Zbckdh]h km[[KkgZ ;

v ihgbgZ kldhklv Dgbo 10-15 df dhgkhebbhZghe qZlb dhj ,
 [ebadZ d kldhklb hkZqgh]h qoeZ , \ imevLZ qlh \ gc g_ ihbkohbl gZniegby
 gZgbc, hklZqguo eY hagbdghgby kbevguo afelykgbc

Hgh , qlh kmsklgguc deZ \ jgb_ wlh]h hijkZ fh]eb [u gklb
 lpdhfhgglgv_]em[bggu_ kckfbqkdb_ bkkenZby.]]bklZby ihnevgo b
 ihiguo heg ihahebeZ [u hkmsklblv iph^ gZ dZklggh ghuc mhgv
 bgnhfZbb : hl hiEgby kdhjklguo ih] k] dZqlm _ mijn]bo khckl\ .

AZeqgb_
 G hkgh\ hklhguo Zguo ih kbevguf afelykgbyf gZ revn_ fhj
 EAUo fh] [ulv uegZ fbdhieblZ . < hdhg]m]bo _ kckfhZlbguo
 ahgZ ih[eZ ghfZvgh k]khU_ Dgby .

Jzehfu KZuc b EAZ \ gZlhys_ fy iZlbqkdb Zkfbqgu .
 Hvgu_ afelykgby hafhgu ebrv \ maeZ ikqgby bo k]n]bfb
 ldhgbqkdbfb gZrgbyfb .

>Zgu_ h]em[bgZ]bihpglh\ Z hihegblevgmx bgnhfZbx eY
 mlhqggby kljndlmgh -ldhgbqkdh]h Zghb]Zby revnZ .

KckfhZlbguo kehc gZ revn_ fhj EAUo bfl fhsgklv 14-16 df ;
 hlghkblevgh dhEb dhgkhebbhZghe qZlb afghe dhj]h dhEY b ihhrZ

gZ jem[bgZ 5-6 df b 20-21 df khhlklggh. FZgblmZ fZkbfZvgh]h
 hafhgh]h afelykgby gZ revn_ hpgbky ebqbghc 5.8-6.2.
 Dhey kckfh]gh]h kehy ihheblevgh gZ hblky gZ jem[bgZ 28-
 30 df , l. . \ Zhg_ ZF .
 < ahg_ iphZ hl revnZ d hdZbqkdhfm Zbckdhfm km[[Zkcgm fhsghklv
 kckfh]bgh]h kehy mebbqgZ ih dzgc fj h 20 df , b kZ hg ih]mè ih
 kZgbx k revnhf b hdZbqkdhc qZlvx gZ 10-12 df b 4-6 df khhlklggh.

IbagZvghklv
 hj [eZ] khlnghbdh\ GBBH]heh]by <.: . bgh]Z , ?.: .
 =mkZ , F.K. Dhgm aZ iheagu_ dhgkmevlbb b gZqgh-logbqkdmx ihfsv ip
 ih]hld_ Zghc klZb .

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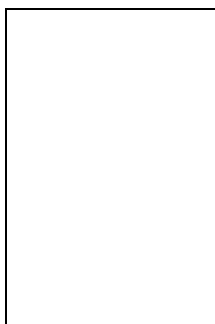
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Microplate is established in the Laptev Sea shelf on the basis of the most reliable large earthquakes data. The microplate is surrounded by active seismic zones dominated by normal faults. It is shown that the Severny and the Lazarev faults are practically aseismic. Individual earthquakes are possible only at points of their intersection with other faults. Thickness of the seismic active layer in the Laptev Sea shelf is some 14-16 km. The roof and the foot of the layer occur at the depths of 5 to 6 and 20 to 21, respectively, from the roof of the consolidated crust. The magnitude of the highest possible earthquake on the shelf may be estimated as 5.8 to 6.2. The roof of seismic generating layer is supposed to occur at the depths of 28 to 30 km, i.e. at the depth of Moho. In the transition zone from the shelf to the oceanic Eurasian Subbasin the thickness of the seismic active layer increases at least up to 20 km, and it occurs 10-12 km and 4-6 km deeper as compared to the shelf and the oceanic areas, respectively.

Fig. 4, references - 23.

Ссылка на статью:



oZbklbdb =I . 3_ Z h afkqb hj Mo . =heh]h-]hnbabqkdb_ eblhknü :dlbqkdh]h]bhgZ . KI[., GBBH]heh]by , 2000, ш . 3. K. 104-114.