

$$\begin{aligned} & \text{PhP} \gg \text{P}^\circ \text{PSP} \cdot \text{P}^\circ \text{PiC} - \text{PS C}'' \text{P}^\circ \text{PSC}, \text{P}^\circ \text{PiC} \dot{\text{C}} \text{P}^\circ \text{C} \dots \text{PsC}, \text{P}^\circ \text{C} \dot{\text{C}} \text{PSP} \dot{\text{C}} \text{P}^\circ \text{Pj}, \\ & \text{P}^\circ \text{PSC}, \text{P}^\circ \text{PjP}^\circ \text{PSC} - \text{P}^\circ \text{PeP}^\circ \text{P} \gg \text{CH} \text{PSP} \dot{\text{C}} \text{P}^\circ \text{Pj} \text{P} \gg \text{C} - \text{PeP}^\circ \text{C} \dot{\text{C}} \text{CH} \text{P}^\circ \text{PeP} \dot{\text{C}} \text{P}^\circ \text{Pj} \text{P} \cdot \text{P}^\circ \text{C} \dot{\text{C}} \text{PsP} \pm \text{PsPj}, \text{C}, \text{P}^\circ \text{PePsP} \dot{\text{C}} \\ & \text{PIC} - \text{PS C} \dot{\text{C}} \text{C}, \text{P}^\circ \text{P} \pm \text{C} - \text{P} \gg \text{C} - \text{P} \cdot \text{C} \dot{\text{C}} \text{C}'' \text{PSP} \dot{\text{C}} \text{C}, \text{C} \dot{\text{C}} \text{C} - \text{PN}_2, \text{PjP}^\circ \text{C}'' \text{C} \dot{\text{C}} \text{PiP} \text{PeC}, \text{C} \dot{\text{C}} \\ & \text{C}, \text{P}^\circ \text{C} \dot{\text{C}} \text{PjP}^\circ \text{PePsP} \gg \text{PsPiC} - \text{C} \dot{\text{C}} \text{PSPsC} - \text{PrC} - \text{C} -, \text{P} \cdot \text{C} \dot{\text{C}} \text{PiPsPIP} \gg \text{PuPSPsC} - \text{PIP} \dot{\text{C}} \text{P} \gg \text{P}^\circ \text{PiPsPj} \text{PSP}^\circ \end{aligned}$$

СҗС-Р·PSC- СҗРµС†РµPіC,PsСҗPё.

PJ PrPsPeP»C-PSC-C±PSPёC... PrPsCГP»C-PrP¶PµPSPSCЦC... PIPёCЦPIP»PµPSPs
P·PIБҗ™ CЦP·CГPIP°PSPSCЦ PsP»P°PSP·P°PіC-PSCГ P·C- CГPµСҗPsC,PsPSC-PSPsPIPёPjPё
СҗРµС†РµPіC,PsСҗP°PjPё 5PќPŸ2Pҕ/2PŸ, 5PќPŸ3, 5PќPŸ6, PrPsPіP°PjC-PSPsPIPёPjPё
СҗРµС†РµPіC,PsСҗP°PjPё D1, D2, D3, D4, D5, PjCГCГPeP°СҗPёPSPsPIPёPjPё
СҗРµС†РµPіC,PsСҗP°PjPё Pҕ1-Pҕ5, P°PrСҗРµPSPµСҗPіC-C±PSPёPj СҗРµС†РµPіC,PsСҗPsPj α1
C- PіC-CГC,P°PjC-PSPsPIPёPj Pќ1-СҗРµС†РµPіC,PsСҗPsPj. PJ PіСҗPsC†PµCГC-
PrPsCГP»C-PrP¶PµPSCҖ PіPsPIPµPrC-PSPePё C,PiP°СҗPёPS, CЦPePёPj PIPsPrPёP»Pё
PsP»P°PSP·P°PіC-PS, PIPёCЦPIP»PµPSPs P°PSC,P°PiPsPSC-P·Pj PsP»P°PSP·P°PіC-PSCГ CЦPe
PrPs CГPµСҗPsC,PsPSC-PSPsPIPёC... СҗРµС†РµPіC,PsСҗС-PI 5PќPŸ, C,P°Pe C- PrPs
PrPsPіP°PjC-PSPsPIPёC... C- C...PsP»C-PSPµСҗPіC-C±PSPёC... СҗРµС†РµPіC,PsСҗС-PI.
PҕP»P°PSP·P°PіC-PS PjP°C” PIPёC%PёPNё СҗС-PIPµPSCҖ P·PIБҗ™ CЦP·CГPIP°PSPSCЦ P·
СҗРµС†РµPіC,PsСҗP°PjPё CГPµСҗPsC,PsPSC-PSCГ 5PќPŸ2, PSC-P¶ P· СҗРµС†РµPіC,PsСҗP°PjPё
PrPsPіP°PjC-PSCГ D2, CГ PjPsPrPµP»CЦC... CЦPe *in vitro*, C,P°Pe C- *in vivo*.
P·P»PµPeC,СҗPsC,,C-P·C-PsP»PsPіC-C±PSC- PrPsCГP»C-PrP¶PµPSPSCЦ PіPsPeP°P·P°P»Pё,
C%Ps PsP»P°PSP·P°PіC-PS CГPµP»PµPeC,PёPIPSs P·PjPµPSCёCГC” P·P±CГPrP»PёPIC-CГC,СҖ
PjPµP·PsP»C-PjP±C-C±PSPёC... (Pҕ10) PrPsPіP°PjC-PSPµСҗPіC-C±PSPёC... PSPµPNёСҗPsPSC-PI,
PіСҗPsCЦPIP»CЦCҖC±Pё PіСҗPё C†СҖPsPjCГ PSPµP·PSP°C±PSPёPNё PIPіP»PёPI PSP°
CГC,СҗС-P°СҗPSC- (Pҕ9) CёP»CЦC...Pё, PіPsPIБҗ™ CЦP·P°PSC- P· PjPsC,PsСҗPSPsСҖ
C,,CГPSPeC†C-C”CҖ. PҕP»P°PSP·P°PіC-PS PіP°P»СҖPjCГC” CГPjPsPIPSPёPNё СҗРµC,,P»PµPeCГ
CГPSPёPePSPµPSPSCЦ, C%Ps CГPIC-PrC±PёC,СҖ PіСҗPs PNёPsPiPs
P°PSC,PёPіCГPёC...PsC,PёC±PSCГ P°PeC,PёPIPS-СГC,СҖ PіСҗPё PіСҗPёPNёPsPjC- PI
PrPsP·P°C..., PjPµPSCёPёC..., PSC-P¶ PrPsP·Pё, C%Ps CГPіСҗPёC±PёPSCЦCҖC,СҖ
PeP°C,P°P»PµPіCГC-CҖ, CЦPeP° C” PsP·PSP°PePsCҖ PіPsP±C-C±PSPёC... PjPsC,PsСҗPSPёC...
PµC,,PµPeC,C-PI. PќP° PIC-PrPjC-PSCГ PIC-Pr C-PSCёPёC... P°PSC,PёPіCГPёC...PsC,PёC±PSPёC...
P»C-PeP°СҗCГCҖPePёC... P·P°CГPsP±C-PI, PsP»P°PSP·P°PіC-PS PіPsCГPёP»CҖC”
СҗРµP°PeC†C-C— PSP° PіPsPrСҗP°P·PSPёPePё PіСҗPё PіСҗPsPIPµPrPµPSPSC-
P°PSPeCГC-PsP»C-C,PёC±PSPsPiPs C,PµCГC,CГ.

PµСҗPё PsPrPSPsСҗP°P·PsPIPsPjCГ PіPµСҗPsСҗP°P»СҖPSPsPjCГ PіСҗPёPNёPsPjC- 10 PjPi
PsP»P°PSP·P°PіC-PSCГ CГ PіСҗPsC†PµCГC- PіPsP·PёC,СҗPsPSPSPs-PµPjC-CГC-PNёPSPsC—
C,PsPjPsPіСҗP°C,,C-C— (PµP·PŸ) P·P° CГC±P°CГC,C- P·PrPsСҗPsPIPёC...
PrPsP±СҗPsPIPsP»CҖC†C-PI P·Бҗ™ CЦCГPsPIP°PSPs, C%Ps PsP»P°PSP·P°PіC-PS PjP°PI
P±C-P»CҖCёPёPNё СҗС-PIPµPSCҖ P·PIБҗ™ CЦP·CГPIP°PSPSCЦ P· СҗРµС†РµPіC,PsСҗP°PjPё
5PќPŸ2Pҕ, PSC-P¶ P· PrPsPіP°PjC-PSPsPIPёPjPё СҗРµС†РµPіC,PsСҗP°PjPё D2. PҕСҗС-Pj
C,PsPiPs, CГ СҗРµPµ·CГP»CҖC,P°C,C- P°PSP°P»C-P·CГ P·PsP±СҗP°P¶PµPSCҖ,
PsC,СҗPёPjP°PSPёC... PіC-Pr C±P°CГ PrPsCГP»C-PrP¶PµPSCҖ PіP°C†C-C”PSC,C-PI,
C...PIPsСҗPёC... PSP° CёPёP·PsC,,СҗРµPSC-CҖ PjPµC,PsPrPsPj PsPrPSPsC,,PsC,PsPSPSPsC—
PµPjC-CГC-PNёPSPsC— PePsPjPіБҗ™ CҖC,PµСҗPSPsC— C,PsPjPsPіСҗP°C,,C-C— (PҕPҕP·PҕPŸ),
P·Бҗ™ CЦCГCГPIP°P»PsCГCЦ, C%Ps PsP»P°PSP·P°PіC-PSC±CГC,P»PёPIC- PіP°C†C-C”PSC,Pё
PIPёCЦPIP»CЦP»Pё PjPµPSCёPёPNё СҗС-PIPµPSCҖ P·PIБҗ™ CЦP·CГPIP°PSPSCЦ P·C-
CГC,СҗС-P°СҗPSPёPjPё D2-СҗРµС†РµPіC,PsСҗP°PjPё, PSC-P¶ C-PSCёC-
P°PSC,PёPіCГPёC...PsC,PёPe- C,P° СҗРµCГPіC-СҗPёPrPsPSC±CГC,P»PёPIC- PіP°C†C-C”PSC,Pё,
PіPsСҗС-PIPS-PIPS P· PeP»PsP·P°PіC-PSC±CГC,P»PёPIPёPjPё PіP°C†C-C”PSC,P°PjPё.

PҕP»C-PSC-C±PSP° PµC,,PµPeC,PёPIPS-СГC,СҖ

PµC-Pr C±P°CГ PrPIPsC... C-P· PrPIPsC... PіP»P°C†PµP±Ps-PePsPSC,СҗPsP»CҖPsPIP°PSPёC... C-
PrPIPsC... C-P· C,СҗСҖPsC... PіPsСҗС-PIPS-PIPS»CҖPSPs-PePsPSC,СҗPsP»CҖPsPIP°PSPёC...
PrPsCГP»C-PrP¶PµPSCҖ P·P° CГC±P°CГC,C- PіPsPSP°Pr 2900 C...PIPsСҗPёC... PSP°
CёPёP·PsC,,СҗРµPSC-CҖ P· PіPsP·PёC,PёPIPSPёPjPё C- PSPµPiP°C,PёPIPSPёPjPё

C,P° P»C-C,C-C" Pj C- P·PiPsPrPsPj P±CfP»Pë CḡP°PSPrPsPjC-P·PsPIP°PSC- Cf PiCḡCfPiPë
PiCḡPëPNëPsPjCf PsP»P°PSP·P°PiC-PSCf P°P±Ps P»C-C,C-Cḡ PsPeCḡPμPjPs, PsP»P°PSP·P°PiC-PS
PSPμ PjP°PI CḡC,P°C,PëCḡC,PëC±PSPs P·PSP°C±CfC%PsC— PiPμCḡPμPIP°PiPë PSP°Pr
P»C-C,C-C" Pj Cf PeC-PSCfPμPIC-PNë C,PsC±CfC- PeCḡPëC,PμCḡC-Cḡ PsCfC-PSPePë
CḡPμCfPëPrPëPICf P±C-PiPsP»CḡCḡPSPsPiPs CḡPsP·P»P°PrCf (PsP»P°PSP·P°PiC-PS 30 %,
P»C-C,C-PNë 38,3 %, Cḡ = 0,055).

PJ PiCḡPsCfPμCḡC- 18-PjC-CḡCḡC±PSPsPiPs PrPsCfP»C-PrPμPμPSPSCḡ PiC-Pr C±P°Cḡ
CḡCfPiCfC,PSCHPsPiPs P»C-PeCfPIP°PSPSCḡ PjP°PSC-P°PeP°P»CHPSPëC... P°P±Ps
P·PjC-CëP°PSPëC... PμPiC-P·PsPrC-PI CḡC,P°PS PiP°CfC-C" PSC,C-PI
CḡC,P°P±C-P»C-P·CfPIP°P»Pë P·P° PrPsPiPsPjPsPiPsCḡ PsP»P°PSP·P°PiC-PSCf, CḡPe
CḡC,P°P±C-P»C-P·P°C,PsCḡ PSP°CḡC,CḡPsCḡ P·P°CḡC,PsCḡPsPICfPIP°P»Pë P»C-C,C-PNë
P°P±Ps PIP°P»CHPiCḡPsP°C,, PrPsPIPiPsC,CḡPëPIP°P»Pμ CḡCfPiCfC,PSC"
P»C-PeCfPIP°PSPSCḡ PsP»P°PSP·P°PiC-PSPsPj P· P»C-C,C-C" Pj P°P±Ps
PIP°P»CHPiCḡPsP°C,PsPj PSPμ PICḡC,P°PSPsPIPëP»Ps CḡC,P°C,PëCḡC,PëC±PSPs
P·PSP°C±CfC%PsC— PiPμCḡPμPIP°PiPë PSP°Pr PjPsPSPsC,PμCḡP°PiC-C" Cḡ P»C-C,C-C" Pj
P°P±Ps PIP°P»CHPiCḡPsP°C,PsPj C- PIC-PrCḡC,CḡPsC±PμPSPSCḡ CḡPμCfPëPrPëPIC-PI
P±C-PiPsP»CḡCḡPSPëC... CḡPsP·P»P°PrC-PI, PIPëP·PSP°C±PμPSPëC... PIC-PrPiPsPIC-PrPSPs
PrPs CḡPëPSPrCḡPsPjPSPsPiPs (PrC-P°PiPSPsCḡC,PëC±PSPsPiPs) PeCḡPëC,PμCḡC-Cḡ.

P"C-C,Pë

P"PsCḡPIC-Pr P·P°CḡC,PsCḡCfPIP°PSPSCḡ P»C-PeP°CḡCḡCHPePsPiPs P·P°CḡPsP±Cf
PiC-PrP»C-C,PeP°Pj (PIC-PePsPj PIC-Pr 13 PrPs 17 CḡPsPeC-PI) PsP±PjPμPμPSPëPNë
PIC-PrPiPsPIC-PrPSPs PrPs PsC,CḡPëPjP°PSPëC... PrP°PSPëC... C%PsPrPs
PμC,,PμPeC,PëPIPSsCḡC,C- PePsCḡPsC,PePsC,CḡPëPIP°P»PsPiPs P»C-PeCfPIP°PSPSCḡ
CëPëP·PsC,,CḡPμPSC-C— (6 C,PëPμPSC-PI) C,P° PjP°PSC-C—, PiPsPiBḡ™ CḡP·P°PSPsC— P·
P±C-PiPsP»CḡCḡPSPëPjPë CḡPsP·P»P°PrP°PjPë (3 C,PëPμPSC-), P·P° CfC±P°CḡC,C- PjPμPSCë
PSC-Pμ 200 PiC-PrP»C-C,PeC-PI. PμPsC±P°C,PePsPIP° PrPsP·P° PsP»P°PSP·P°PiC-PSCf
CḡC,P°PSPsPIPëP»P° 2,5 PjPi C,P° PrPsCḡCḡPiP°P»P° 20 PjPi PSP° PrPsP±Cf. PμC-Pr C±P°Cḡ
P»C-PeCfPIP°PSPSCḡ PsP»P°PSP·P°PiC-PSPsPj PjP°CḡP° C,C-P»P° Cf PiC-PrP»C-C,PeC-PI
P·PSP°C±PSPs P·P±C-P»CHCëPëP»P°CḡCḡ PiPsCḡC-PIPSCḡPSPs P· PrPsCḡPsCḡP»PëPjPë. PJ
PiC-PrP»C-C,PeC-PI CḡPiPsCḡC,PμCḡC-PiP°P»PsCḡCḡ PiC-PrPIPëC%PμPSPSCḡ CḡC-PIPSCḡ
P·P°PiP°P»CHPSPsPiPs C...PsP»PμCḡC,PμCḡPëPSCf, C...PsP»PμCḡC,PμCḡPëPSCf
P»C-PiPsPiCḡPsC,PμC—PSC-PI PSPëP·CHPePsC— C%C-P»CHPSPsCḡC,C-,
C,CḡPëPiP»C-CfPμCḡPëPrC-PI C,P° PiCḡPsP»P°PeC,PëPSCf PiPsCḡC-PIPSCḡPSPs P·
PrPsCḡPsCḡP»PëPjPë. P"°PSC- C%PsPrPs PiC-PrC,CḡPëPjP°PSPSCḡ PμC,,PμPeC,Cf
P»C-PeCfPIP°PSPSCḡ C,P° PrPsPIPiPsC,CḡPëPIP°P»PëC... PrPsCḡP»C-PrPμPμPSCH,
PsPrPμCḡPμP°PSC- P· PIC-PrPeCḡPëC,PëC... PSPμPePsPSC,CḡPsP»CHPsPIP°PSPëC...
PeP»C-PSC-C±PSPëC... PrPsCḡP»C-PrPμPμPSCH, PsP±PjPμPμPSC-.

PαP°CḡPjP°PePsPeC-PSPμC,PëPeP°.

PhP»P°PSP·P°PiC-PS Cf C,,PsCḡPjC- C,P°P±P»PμC,PsPe, C%Ps PrPëCḡPiPμCḡPiCfCḡC,CHCḡCḡ
Cf CḡPsC,PsPIC-PNë PiPsCḡPsPμPSPëPSC-, P±C-PsPμPePIC-PIP°P»PμPSC,PSPëPNë C%PsPrPs
PsP»P°PSP·P°PiC-PSCf Cf C,,PsCḡPjC- C,P°P±P»PμC,PsPe, PIPeCḡPëC,PëC...
PsP±PsP»PsPSPePsCḡ, CḡPeC- PrPμPjPsPSCḡC,CḡCfCḡC,CH CḡC...PsPμCf
CëPIPëPrPeC-CḡC,CH C,P° CḡC,CfPiC-PSCḡ P°P±CḡPsCḡP±CfC-C—. PhP»P°PSP·P°PiC-PS Cf
C,,PsCḡPjC- C,P°P±P»PμC,PsPe, C%Ps PrPëCḡPiPμCḡPiCfCḡC,CHCḡCḡ Cf CḡPsC,PsPIC-PNë
PiPsCḡPsPμPSPëPSC-, PjPsPμPμ P·P°CḡC,PsCḡPsPICfPIP°C,PëCḡCḡ CḡPe
P°P»CHC,PμCḡPSP°C,PëPIP° PsP»P°PSP·P°PiC-PSCf Cf C,,PsCḡPjC- C,P°P±P»PμC,PsPe,
PIPeCḡPëC,PëC... PsP±PsP»PsPSPePsCḡ.

P_hP±CÍ[°]PsC_hP±C†C-CÍ

P_hC_hP_hPiP°C_hP°C, PrPsP±C_hP_h PICÍPjPsPeC,CrC°C,C_hCÍCÍ PíC-CÍP»CÍ
PíP_hC_hPsC_hP°P»C_hPSPsPiPs PíC_hPëP_hPN_hPsPjCr, PN_hPsPiPs PjP°PeCÍPëPjP°P»C_hPSP°
PePsPSC†P_hPSC,C_hP°C†C-CÍ (C_{max}) Cr PíP»P°P·PjC- PeC_hPsPIC- PrPsCÍCÍPíP°C°C,C_hCÍCÍ
C†P_hC_hP_hP· 5-8 PiPsPrPëPS. P°P¶PëPIP°PSPSCÍ C-P¶C- PSP_h PíPíP»PëPIP°C° PSP°
PICÍPjPsPeC,CrPíP°PSPSCÍ PsP»P°PSP·P°PíC-PSCr. P_hP±CÍ[°]PsP»C_hC,PSP°
P±C-PsPrPsCÍC,CrPíPSC-CÍC,C_h PíP_hC_hPsC_hP°P»C_hPSPsC— C„PsC_hPjPë PíC_hPëP_hPN_hPsPjCr
PsP»P°PSP·P°PíC-PSCr PíPsC_hC-PIPSCÍPSPs P· PIPSCrC,C_hC-CëPSC_hPsPIP_hPSPSPsC_h PSP_h
PICÍC,P°PSPsPIP»P_hPSP°.

P PsP·PíPsPrC-P»

P C-PIP_hPSCH P·PIB_h[™] CÍP·CrPíP°PSPSCÍ PsP»P°PSP·P°PíC-PSCr P· PíC_hPsC,P_hC—PSP°PjPë
PíP»P°P·PjPë PeC_hPsPIC- CÍC,P°PSPsPIPëPI PíC_hPëP±P»PëP·PSPs 93 % PrP»CÍ
PePsPSC†P_hPSC,C_hP°C†C-C— Cr PjP_hP¶P°C... PIC-Pr 7 PrPs 1000 PSPi/PjP». P_hP»P°PSP·P°PíC-PS
P·PIB_h[™] CÍP·CrC°C,C_hCÍCÍ PíP_hC_hP_hPIP°P¶PSPs P· P°P»C_hP±C†PjC-PSPsPj C- α1-
PePëCÍP»PëPj PíP»C-PePsPíC_hPsC,P_hC—PSPsPj.

P'C-PsC,C_hP°PSCÍC„PsC_hPjP°C†C-CÍ

P_hP»P°PSP·P°PíC-PS PjP_hC,P°P±PsP»C·P·CrC°C,C_hCÍCÍ Cr PíP_hC†C-PSC†C- CëP»CÍC...PsPj
PePsPSB_h[™] C_hPíP°C†C-C— C,P° PsPePëCÍPSP_hPSPSCÍ. P_hCÍPSPsPIPSPëPj
PjP_hC,P°P±PsP»C-C,PsPj, C°Ps C†PëC_hPeCrP»C_hC°, C° 10-N-PiP»C_hPeCrC_hPsPSC-Pr,
CÍPePëPN_h PSP_h PíC_hPsC...PsPrPëC,C_h PeC_hC-P·C_h PíP_hPjP°C,PsP_hPSC†P_hC„P°P»C-C†PSPëPN_h
P±P°C_hB_h[™] C°C_h. PíPëC,PsC...C_hPsPjPë P450-CYP1A2 C- P450-CYP2D6 CÍPíC_hPëCÍC_hC,C_h
C„PsC_hPjCrPíP°PSPSC_h PjP_hC,P°P±PsP»C-C,C-PI N-PrP_hP·PjP_hC,PëP»Cr C- 2-
PíC-PrC_hPsPeCÍPëPjP_hC,PëP»Cr, CÍPeC- PíC_hPsCÍPíP»CÍC_hC,C_h P·PSP°C†PSPs PjP_hPSCëCr
C„P°C_hPjP°PePsP»PsPiC-C†PSCr P°PeC,PëPIPSC-CÍC,C_h *in vivo*, PSC-P¶ PsP»P°PSP·P°PíC-PS,
Cr PíC_hPsC†P_hCÍC- PrPsCÍP»C-PrP¶P_hPSCH PSP° C,PIP°C_hPëPSP°C....
P_hP_hC_hP_hPIP°P¶P°C_hC†P° C„P°C_hPjP°PePsP»PsPiC-C†PSP° P°PeC,PëPIPSC-CÍC,C_h
P·CrPjPsPIP»P_hPSP° PíP_hC_hPIPëPSPSPëPj PsP»P°PSP·P°PíC-PSPsPj.

P'PëPIP_hPrP_hPSPSCÍ

P_hC-CÍP»CÍ PíP_hC_hPsC_hP°P»C_hPSPsPiPs P·P°CÍC,PsCÍCrPíP°PSPSCÍ CÍP_hC_hP_hPrPSC-PN_h
PíP_hC_hC-PsPr PSP°PíC-PIIPëPIP_hPrP_hPSPSCÍ PsP»P°PSP·P°PíC-PSCr Cr
PrPsP±C_hPsPIPsP»C_hC†C-PI PePsP»PëPIP°PICÍCÍ P·P°P»P_hP¶PSPs PIC-Pr PIC-PeCr C,P°
CÍC,P°C,C-.

Pj P·PrPsC_hPsPIPëC... PrPsP±C_hPsPIPsP»C_hC†C-PI P»C-C,PSCHPsPiPs PIC-PeCr (PIC-PePsPj
PIC-Pr 65 C_hPsPeC-PI) PíPsC_hC-PIPSCÍPSPs P· PjPsP»PsPrCëPëPjPë P·P° PIC-PePsPj
PrPsP±C_hPsPIPsP»C_hC†CÍPjPë CÍP_hC_hP_hPrPSC-PN_h PíP_hC_hC-PsPr
PSP°PíC-PIIPëPIP_hPrP_hPSPSCÍ P±CrPI C,C_hPëPIP°P»C-CëPëPN_h (51,8 PíC_hPsC,Pë 33,8
PiPsPrPëPSPë), PeP»C-C_hP_hPSCÍ Cr PíP»P°P·PjC- PeC_hPsPIC- P±CrPI P·PSPëP¶P_hPSPëPN_h (17,5
PíC_hPsC,Pë 18,2 P»/PiPsPr PIC-PrPíPsPIC-PrPSPs). P°P°C_hPjP°PePsPeC-PSP_hC,PëC†PSC-
PePsP»PëPIP°PSPSCÍ, C°Ps CÍPíPsCÍC,P_hC_hC-PíP°P»PëCÍCÍ Cr PrPsP±C_hPsPIPsP»C_hC†C-PI
P»C-C,PSCHPsPiPs PIC-PeCr, P·PSP°C...PsPrCÍC,C_hCÍCÍ Cr PjP_hP¶P°C... PrC-P°PíP°P·PsPSCr
PrP»CÍ PjPsP»PsPrCëPëC... PrPsP±C_hPsPIPsP»C_hC†C-PI. Pj 44 C...PIPsC_hPëC... PSP°
CëPëP·PsC„C_hP_hPSC-C_h PIC-PePsPj PIC-Pr 65 C_hPsPeC-PI PrPsP·CrPíP°PSPSCÍ PIC-Pr 5 PrPs
20 PjPi PSP° PrPsP±Cr PSP_h P±CrP»Ps PíPsPIB_h[™] CÍP·P°PSPs P· P¶PsPrPSPëPj
C...P°C_hP°PeC,P_hC_hPSPëPj PíC_hPsC„C-P»P_hPj PíPsP±C-C†PSPëC... C_hP_hP°PeC†C-PN_h.

PJ P¶C-PSPsPe PíPsC¶C-PIPSC¶PSPs P· C¶PsP»PsPIC-PeP°PjPë C¶PµC¶PµPrPSC-PNë
PíPµC¶C-PsPr PSP°PíC-PIPIPëPIPµPrPµPSPSC¶ P±C¶PI C,C¶PëPIP°P»C-CëPëPNë (36,7
PíC¶PsC,Pë 32,3 PíPsPrPëPSPë) C,P° PeP»C-C¶PµPSC¶ C¶ PíP»P°P·PjC- PeC¶PsPIC- P±C¶PI
P·PSPëP¶PµPSPëPNë (18,9 PíC¶PsC,Pë 27,3 P»/PíPsPr). PhPrPSP°Pe PsP»P°PSP·P°PíC-PS (5-20
PjPi) PíPsPeP°P·P°PI PíPsC¶C-PIPSC¶PSPSPëPNë PíC¶PsC,,C-P»CH P±PµP·PíPµPePë C¶Pe C¶
P¶C-PSPsPe (n = 467), C,P°Pe C- C¶ C¶PsP»PsPIC-PeC-PI (n = 869).

PµP°C¶C-C°PSC,Pë P· PSPëC¶PePsPIPsC¶ PSPµPrPsC¶C,P°C,PSC-C¶C,C¶

PJ PíP°C¶C-C°PSC,C-PI P· PSPëC¶PePsPIPsC¶ PSPµPrPsC¶C,P°C,PSC-C¶C,C¶ (PeP»C-C¶PµPSC¶
PeC¶PµP°C,PëPSC-PSC¶ < 10 PjP»/C...PI) PíPsC¶C-PIPSC¶PSPs P·C- P·PrPsC¶PsPIPëPjPë
PrPsP±C¶PsPIPsP»CHC¶C¶PjPë PSPµ P±C¶P»Ps C-C¶C,PsC,PSPsC— C¶C-P·PSPëC¶C- C¶
PíPsPeP°P·PSPëPeP°C... C¶PµC¶PµPrPSC¶PsPiPs PíPµC¶C-PsPrC¶
PSP°PíC-PIPIPëPIPµPrPµPSPSC¶ (37,7 PíC¶PsC,Pë 32,4 PíPsPrPëPSPë) P°P±Ps
PeP»C-C¶PµPSC¶C¶ C¶ PíP»P°P·PjC- PeC¶PsPIC- (21,2 PíC¶PsC,Pë 25,0 P»/PíPsPr).
P°PSc¶P»C-PrP¶PµPSPSC¶ PíPsPeP°P·P°P»Pë, C°%Ps PíC¶PëP±P»Pë·PSPs 57 %
PsP»P°PSP·P°PíC-PSC¶ P· C¶P°PrC-PsP°PeC,PëPIPsC¶ PjC-C,PePsC¶ PSP°C¶PIPSC- PI
C¶PµC¶C-, PíPsP»PsPIPSPëPj C¶PëPSPsPj C¶ PIPëPiP»C¶PrC- PjPµC,P°P±PsP»C-C,C-PI.

PµPsC¶CçCëPµPSPSC¶ C,,CçPSPeC¶C-C— PíPµC¶C-PSPePë

PJ PíC¶PsC¶PµC¶C- PSPµPIPµP»PëPePsPiPs PrPsC¶P»C-PrP¶PµPSPSC¶ PIPíP»PëPIC¶
PíPsC¶C¶CëPµPSPSC¶ C,,C¶PSPeC¶C-C— PíPµC¶C-PSPePë C¶ 6 PíP°C¶C-C°PSC,C-PI C-P·
PeP»C-PSC-C¶PSPs P·PSP°C¶C°%PëPj (PeP»P°C¶PëC,,C-PeP°C¶C-C¶ P§P°PNëP»PrP°-PµB¶™ C¶
A (n = 5) C- B (n = 1)) C¶PëC¶PsP·PsPj PIPëC¶PIP»PµPSPs PSPµP·PSP°C¶PSPëPNë PIPíP»PëPI
PSP° C,,P°C¶PjP°PePsPeC-PSPµC,PëPeC¶ PíPµC¶PsC¶P°P»CHPSPsPiPs PsP»P°PSP·P°PíC-PSC¶
(2,5B¶"7,5 PjPi), C¶P°P·PsPIP° PrPsP·P°): PíP°C¶C-C°PSC,Pë P· P»PµPiPePsC¶ C,P°
PíPsPjC-C¶PSPsC¶ PrPëC¶C,,C¶PSPeC¶C-C°C¶ PíPµC¶C-PSPePë PjP°P»Pë PrPµC°%Ps
PíC-PrPIPëC°%PµPSPëPNë C¶PëC¶C,PµPjPSPëPNë PeP»C-C¶PµPSC¶ C- CëPIPëPrCëPëPNë
PíPµC¶C-PsPr PSP°PíC-PIPIPëPIPµPrPµPSPSC¶ PíPsC¶C-PIPSC¶PSPs P· PíP°C¶C-C°PSC,P°PjPë
P±PµP· PíPµC¶C-PSPePsPIPsC— PrPëC¶C,,C¶PSPeC¶C-C— (n = 3). P¶PµC¶PµPr
PíP°C¶C-C°PSC,C-PI C-P· C¶PëC¶PsP·PsPj P±C¶P»Ps P±C-P»CHCëPµ PeC¶C¶C¶C-PI (4/6; 67 %),
PSC-P¶ C¶PµC¶PµPr PíP°C¶C-C°PSC,C-PI P±PµP· PíPsC¶C¶CëPµPSPSC¶ C,,C¶PSPeC¶C-C—
PíPµC¶C-PSPePë (0/3; 0 %).

PµP°C¶C-C°PSC,Pë, C¶PeC- PíP°P»C¶C,C¶

PJ PSPµPeC¶C¶C¶C-PI PíPsC¶C-PIPSC¶PSPs P· PeC¶C¶C¶C¶PjPë (C¶PsP»PsPIC-PePë C,P°
P¶C-PSPePë) C¶PµC¶PµPrPSC-PNë PíPµC¶C-PsPr PSP°PíC-PIPIPëPIPµPrPµPSPSC¶ P±C¶PI
C,C¶PëPIP°P»C-CëPëPNë (38,6 PíC¶PsC,Pë 30,4 PíPsPrPëPSPë), P° PeP»C-C¶PµPSC¶ C¶
PíP»P°P·PjC- PeC¶PsPIC- P±C¶PI P·PSPëP¶PµPSPëPNë (18,6 PíC¶PsC,Pë B B B B 27,7 P»/PíPsPr).

P¶P»C-C¶PµPSC¶ PsP»P°PSP·P°PíC-PSC¶ C¶ PíP»P°P·PjC- PeC¶PsPIC- PSPëP¶C¶PëPNë C¶
PíP°C¶C-C°PSC,C-PI P»C-C,PSCHPsPiPs PIC-PeC¶ PíPsC¶C-PIPSC¶PSPs P· PjPsP»PsPrCëPëPjPë
PíP°C¶C-C°PSC,P°PjPë, C¶ P¶C-PSPsPe PíPsC¶C-PIPSC¶PSPs P· C¶PsP»PsPIC-PeP°PjPë C,P° C¶
PSPµPeC¶C¶C¶C-PI PíPsC¶C-PIPSC¶PSPs P· PeC¶C¶C¶C¶PjPë. P¶ PIC¶Pµ P¶ C,P°PeC-
C,,P°PeC,PsC¶Pë C¶Pe PIC-Pe, C¶C,P°C,CH C,P° PíP°P»C-PSPSC¶ PjP°P»Ps PjPsP¶C¶C,CH
PIPIP»PëPIP°C,Pë PSP° PeP»C-C¶PµPSC¶ PsP»P°PSP·P°PíC-PSC¶ C¶ PíP»P°P·PjC- PeC¶PsPIC-
C,P° PíPµC¶C-PsPr PSP°PíC-PIPIPëPIPµPrPµPSPSC¶ PíPsC¶C-PIPSC¶PSPs C-P·
P·P°PiP°P»CHPSPsC¶ PjC-PSP»PëPIC-C¶C,C¶ PjC-P¶ C-PSPPrPëPIC-PrC¶C¶PjP°PjPë.

PJ PíC¶PsC¶PµC¶C- PrPsC¶P»C-PrP¶PµPSC¶ P· C¶C¶P°C¶C,C¶ PíP°C¶C-C°PSC,C-PI-

C"PICḡPsPīPμPNεC†C-PI, PīP°C†C-C"PSC,C-PI C‡PīPsPSC†ḤPePsC— C,P°
PePëC,P°PNεC†ḤPePsC— PSP°C†C-PsPSP°P»CH̄PSPsC†C,PμPNε PIC-PrPjC-PSPSPsC†C,PμPNε C†
C,,P°CḡPjP°PePsPeC-PSPμC,PëC†C- PsP»P°PSP·P°PīC-PSC† PSPμ PIPëC‡PIP»PμPSPs.

PμC-PrP»C-C,PePë C- PrPsCḡPsC†P»C-

PαP°CḡPjP°PePsPeC-PSPμC,PëPeP° PsP»P°PSP·P°PīC-PSC† C† PīC-PrP»C-C,PeC-PI C-
PrPsCḡPsC†P»PëC... PīPsPrC-P±PSP°. PJ PīCḡPsC†PμC†C- PeP»C-PSC-C‡PSPëC...
PrPsC†P»C-PrP¶PμPSCḤ C†PμCḡPμPrPSC-PNε PIPīP»PëPI PsP»P°PSP·P°PīC-PSC† P±C†PI
PīCḡPëP±P»PëP·PSPs PSP° 27 % PIPëC‰PëPNε C† PīC-PrP»C-C,PeC-PI, PSC-P¶ C†
PrPsCḡPsC†P»PëC... PīP°C†C-C"PSC,C-PI. P" PμPjPsPīCḡP°C,,C-C‡PSC- PIC-PrPjC-PSPSPsC†C,C-
PjC-P¶ PīC-PrP»C-C,PeP°PjPë C- PrPsCḡPsC†P»PëPjPë PIPeP»CḤC‡P°CḤC,CH̄ PSPëP¶C‡C†
C†PμCḡPμPrPSCḤ PjP°C†C† C,C-P»P° C,P° PjPμPSC€C† PeC-P»CH̄PeC-C†C,CH̄ PeC†CḡC†C-PI
C†PμCḡPμPr PīP°C†C-C"PSC,C-PI PīC-PrP»C-C,PePsPIPsiPiPs PIC-PeC†. PŷP°PeC-
C,,P°PeC,PsCḡPë, C-PjPsPIC-CḡPSPs, PIPīP»PëPIP°CḤC,CH̄ PSP° PIPëC‰PëPNε
C†PμCḡPμPrPSC-PNε PμC,,PμPeC, PsP»P°PSP·P°PīC-PSC†, C‰Ps C†PīPsC†C,PμCḡC-PiP°PIC†C‡
C† PīC-PrP»C-C,PeC-PI.

Pl̄P»C-PSC-C‡PSC- C...P°CḡP°PeC,PμCḡPëC†C,PëPePë.

PμPsPeP°P·P°PSPSC‡.

PhP»P°PSP·P°PīC-PS PīPsPeP°P·P°PSPëPNε PrP»C‡ P»C-PeC†PIP°PSPSC‡
C€PëP·PsC,,CḡPμPSC-C—.

PhP»P°PSP·P°PīC-PS PμC,,PμPeC,PëPIPSPëPNε PrP»C‡ PīC-PrC,CḡPëPjP°PSPSC‡
PrPsC†C‡PIPSC†C,PsPiPs PeP»C-PSC-C‡PSPsPiPs PμC,,PμPeC,C† PīC-Pr C‡P°C†
C,CḡPëPIP°P»PsC— C,PμCḡP°PīC-C— C† PīP°C†C-C"PSC,C-PI, C† C‡PePëC...
C†PīPsC†C,PμCḡC-PiP°P»P°C†C‡ PIC-PrPīPsPIC-PrCH̄ PSP° PīPsC‡P°C,PePsPIC†
C,PμCḡP°PīC-CḤ.

PhP»P°PSP·P°PīC-PS PīPsPeP°P·P°PSPëPNε PrP»C‡ P»C-PeC†PIP°PSPSC‡
PjP°PSC-P°PeP°P»CH̄PSPëC... PμPīC-P·PsPrC-PI PīPsPjC-CḡPSPsPiPs C,P° C,C‡P¶PePsPiPs
C†C,C†PīPμPSC‡.

PhP»P°PSP·P°PīC-PS PīPsPeP°P·P°PSPëPNε PrP»C‡ PīCḡPsC,,C-P»P°PeC,PëPePë
PīPsPIC,PsCḡPSPëC... PSP°PīP°PrC-PI C† PīP°C†C-C"PSC,C-PI P· P±C-PīPsP»C‡CḡPSPëPjPë
CḡPsP·P»P°PrP°PjPë, C† C‡PePëC... P±C†P»Ps PsC,CḡPëPjP°PSPs PīPsP·PëC,PëPIPSC†
PIC-PrPīPsPIC-PrCH̄ PīCḡPë P»C-PeC†PIP°PSPSC- PsP»P°PSP·P°PīC-PSPsPj PjP°PSC-C—.

PμCḡPsC,PëPīPsPeP°P·P°PSPSC‡.

PμC-PrPIPëC‰PμPSP° C‡C†C,P»PëPIC-C†C,CH̄ PrPs PrC-CḤC‡PsC— CḡPμC‡PsPIPëPSPë P°P±Ps
PrPs PrPsPīPsPjC-P¶PSPëC... PePsPjPīPsPSPμPSC,C-PI PīCḡPμPīP°CḡP°C,C†; PIC-PrPsPjPëPNε
CḡPëP·PëPe P·P°PeCḡPëC,PsPeC†C,PsPIPsC— PiP»P°C†PePsPjPë.

P'P·P°C"PjPsPrC-C‡ P· C-PSC€PëPjPë P»C-PeP°CḡC†ḤPePëPjPë P·P°C†PsP±P°PjPë C,P°

C-PSC€C- PIPëPrPë PIP·P°C" PjPsPrC-PN.

P"PsCfP»C-PrP¶PµPSPSC¶ PIP·P°C" PjPsPrC-C— P· C-PSC€PëPjPë P»C-PeP°C¶CfCHPePëPjPë
P·P°CfPsP±P°PjPë PïC¶PsPIPsPrPëP»Pë C,C-P»CHPePë P· CfcP°CfC,C¶ PrPsC¶PsCfP»PëC....

P'P·P°C" PjPsPrC-C—, C%Ps PjP°C¶C,CH PïPsC,PµPSC†C-PN,PSPëPN PIPiP»PëPI PSP°
PsP»P°PSP·P°PïC-PS

P¶CfPeC-P»CHPePë PsP»P°PSP·P°PïC-PS PjPµC,P°P±PsP»C-P·CfC"C,CHCfC¶
C-P·PsC,,PµC¶PjPµPSC,PsPj CYP1A2, C¶PµC±PsPIPëPSPë, C¶PeC- CfPïPµC†PëC,,C-C±PSPs
C-PSPrCfPeCfC¶C,CHCfC¶ P°P±Ps C-PSPiC-P±CfC¶C,CHCfC¶ C†PëPj
C-P·PsC,,PµC¶PjPµPSC,PsPj, PjPsP¶CfC,CH PIPiP»PëPIP°C,Pë PSP°
C,,P°C¶PjP°PePsPeC-PSPµC,PëPeCf PsP»P°PSP·P°PïC-PSCf.

P†PSPrCfPeC,PsC¶Pë CYP1A2

P¶PµC,P°P±PsP»C-P·Pj PsP»P°PSP·P°PïC-PSCf PjPsP¶Pµ P±CfC,Pë C-PSPrCfPePsPIP°PSPëPN
PïP°P»C-PSPSC¶Pj C,P° P·P°CfC,PsCfCfPIP°PSPSC¶Pj PeP°C¶P±P°PjP°P·PµPïC-PSCf,
C¶PePëPN PïC¶PëP·PIPsPrPëC,CH PrPs P·PSPëP¶PµPSPSC¶ PePsPSC†PµPSC,C¶P°C†C-C—
PsP»P°PSP·P°PïC-PSCf. P¶PïPsCfC,PµC¶C-PiP°P»PsCfC¶ CfP»P°P±PePµ P°P±Ps
PïPsPjC-C¶PSPµ PïC-PrPIPëC%PµPSPSC¶ PeP»C-C¶PµPSCfCf PsP»P°PSP·P°PïC-PSCf.
P¶P»C-PSC-C±PSC- PIPëCfPSPsPIPePë PsP±PjPµP¶PµPSC-, P°P»Pµ
C¶PµPePsPjPµPSPrCfC"C,CHCfC¶ PeP»C-PSC-C±PSPëPN PjPsPSC-C,PsC¶PëPSPi C,P°,
C¶PeC%Ps PSPµPsP±C...C-PrPSPs, P·P±C-P»CHC¶PµPSPSC¶ PrPsP·Pë PsP»P°PSP·P°PïC-PSCf.

P†PSPiC-P±C-C,PsC¶Pë CYP1A2

P¶P»CfPsPeCfP°PjC-PS, CfPïPµC†PëC,,C-C±PSPëPN C-PSPiC-P±C-C,PsC¶ CYP1A2,
C-CfC,PsC,PSPs P·PSPëP¶CfC" PjPµC,P°P±PsP»C-P·Pj PsP»P°PSP·P°PïC-PSCf. PjPµ
PïC¶PëP·PIPsPrPëC,CH PrPs CfPµC¶PµPrPSC¶PsPiPs P·C¶PsCfC,P°PSPSC¶ P¶max
PïC-CfP»C¶ PïC¶PëPNPsPjCf C,,P»CfPsPeCfP°PjC-PSCf PSP° 54 % Cf P¶C-PSPsPe, C¶PeC-
PSPµ PïP°P»C¶C,CH, C,P° PSP° 77 % Cf C±PsP»PsPIC-PeC-PI, C¶PeC- PïP°P»C¶C,CH.
P¶PµC¶PµPrPSC" P·C¶PsCfC,P°PSPSC¶ PïP»PsC%C- PïC-Pr
C,,P°C¶PjP°PePsPeC-PSPµC,PëC±PSPsC¶ PeC¶PëPIPsC¶ B«PePsPSC†PµPSC,C¶P°C†C-C¶-
C±P°CfB» (AUC) PsP»P°PSP·P°PïC-PSCf CfC,P°PSPsPIPëC,CH 52 % C,P° 108 %
PIC-PrPïPsPIC-PrPSPs. P"»C¶ PïP°C†C-C"PSC,C-PI, C¶PeC- P·P°CfC,PsCfPsPICfC¶C,CH
C,,P»CfPsPeCfP°PjC-PS P°P±Ps P±CfPrCH-C¶PeC- C-PSC€C- C-PSPiC-P±C-C,PsC¶Pë CYP1A2,
PSP°PïC¶PëPeP»P°Pr C†PëPïC¶PsC,,P»PsPeCfP°C†PëPS, PïPsC,C¶C-P±PSPs
PïC¶PëP·PSP°C±P°C,Pë P·PSPëP¶PµPSC- PrPsP·Pë PsP»P°PSP·P°PïC-PSCf. P¶PµPsP±C...C-PrPSPs
C¶PsP·PiP»C¶PSCfC,Pë PjPsP¶P»PëPIC-CfC,CH P·PSPëP¶PµPSPSC¶ PrPsP·Pë
PsP»P°PSP·P°PïC-PSCf, C¶PeC%Ps C-PSC-C†C-PNPsPIP°PSPµ P»C-PeCfPIP°PSPSC¶
C-PSPiC-P±C-C,PsC¶PsPj CYP1A2.

P—PjPµPSC€PµPSPSC¶ P±C-PsPrPsCfC,CfPïPSPsCfC,C-

P—P°CfC,PsCfCfPIP°PSPSC¶ P°PeC,PëPIPsPIP°PSPsPiPs PICfPiC-P»P»C¶ P·PSPëP¶CfPIP°P»Ps
PïPµC¶PsC¶P°P»CHPSCf P±C-PsPrPsCfC,CfPïPSC-CfC,CH PïC¶PëPNPSC¶C,PsPiPs
PsP»P°PSP·P°PïC-PSCf PSP° 50-60 %, C,PsPjCf PNPsPiPs CfP»C-Pr P·P°CfC,PsCfPsPICfPIP°C,Pë
PïC¶PsC,C¶PiPsPj 2 PiPsPrPëPS PrPs PïC¶PëPNPsPjCf P°P±Ps C±PµC¶PµP· 2 PiPsPrPëPSPë
PïC-CfP»C¶ PïC¶PëPNPsPjCf PsP»P°PSP·P°PïC-PSCf.

P¶P»CfPsPeCfPµC,PëPS (C-PSPiC-P±C-C,PsC¶ CYP2D6), PsPrPSPsC¶P°P·PsPIP° PrPsP·P°

P°PSC,P°C†PëPrC-PI, C%Ps PjC-CÍC,CÍC,CH P°P»CHPjC-PSC-PN C,P° PjP°PiPSC-PN P°P±Ps C†PëPjPµC,PëPrPëPS, C-CÍC,PsC,PSPs PSPµ PIPiP»PëPIP°P»Pë PSP° C,,P°CĤPjP°PePsPeC-PSPµC,PëPeCr PsP»P°PSP·P°PiC-PSCr.

PĤPsP¶P»PëPIPëPN PIPiP»PëPI PsP»P°PSP·P°PiC-PSCr PSP° C-PSC€C- P»C-PeP°CĤCÍCHPeC-P·P°CÍPsP±Pë

PĤP»P°PSP·P°PiC-PS PjPsP¶Pµ PíCĤPsCÍPIP»CÍC,Pë P°PSC,P°PiPsPSC-P·Pj PrPs PµC,,PµPeC,C-PI PíCĤCÍPjPëC... C,P° PSPµPíCĤCÍPjPëC... P°PiPsPSC-CÍC,C-PI PrPsPíP°PjC-PSCr.

PĤP»P°PSP·P°PiC-PS PSPµ PíCĤPëPiPSC-C†CrPIP°PI PsCÍPSPsPIPSC- C-P·PsC,,PµCĤPjPµPSC,Pë CYP 450 (PSP°PíCĤPëPeP»P°Pr, 1A2, 2D6, 2C9, 2C19, 3A4) *in vitro*. PÿP°PePëPj C†PëPSPsPj, PSPµ PsC†C-PeCrC”C,CHCÍCÍ PSC-CÍPePëC... PsCÍPsP±P»PëPIPëC... PIP·P°C”PjPsPrC-PN, C%Ps PíC-PrC,PIPµCĤPrP¶PµPSPs Cr PrPsCÍP»C-PrP¶PµPSPSCÍC... *in vivo*, PrPµ PSPµ PIC-PrP·PSP°C†P°P»PsCÍCH C-PSPiC-P±CrPIP°PSPSCÍ PjPµC,P°P±PsP»C-P·PjCr PsP»P°PSP·P°PiC-PSCr PíCĤPë P·P°CÍC,PsCÍCrPIP°PSPSC- C,P°PePëC... P°PeC,PëIPSPëC... CĤPµC†PsPIPëPS: C,CĤPëC†PëPeP»C-C†PSC- P°PSC,PëPrPµPíCĤPµCÍP°PSC,Pë (PiPsP»PsPIPSPëPj C†PëPSPsPj PíCĤPµPrCÍC,P°PIP»PµPSC- C-P·PsC,,PµCĤPjPµPSC,PsPj CYP2D6), PIP°CĤC,,P°CĤPëPS (CYP2C9), C,PµPsC,,C-P»C-PS (CYP 1A2) P°P±Ps PrC-P°P·PµPiP°Pj (CYP 3PĤ4 C,P° 2Pÿ19).

PĶPµ P±CrP»Ps P·P°C,,C-PeCÍPsPIP°PSPs PIP·P°C”PjPsPrC-C— PsP»P°PSP·P°PiC-PSCr P· P»C-C,C-C”Pj P°P±Ps P±C-PiPµCĤPëPrPµPSPsPj.

PÿPµCĤP°PiPµPIC,PëC†PSPëPN PjPsPSC-C,PsCĤPëPSPi CĤC-PIPSCÍ PIP°P»CHPíCĤPsP°C,Cr Cr PíP»P°P·PjC- PeCĤPsPIC- PSPµ PIPëCÍPIPëPI PSPµPsP±C...C-PrPSPsCÍC,C- PePsCĤPµPeC†C-C— PrPsP·Pë PIP°P»CHPíCĤPsP°C,Cr PíCĤPë CÍCrPíCrC,PSCHPsPjCr PíCĤPëP·PSP°C†PµPSPSC- P· PsP»P°PSP·P°PiC-PSPsPj.

P—P°PiP°P»CHPSP° P°PeC,PëIPSC-CÍC,CH C%PsPrPs C†PµPSC,CĤP°P»CHPSPsC— PSPµCĤPIPsIPsC— CÍPëCÍC,PµPjPë (PíPĶPÿ)

P— PsP±PµCĤPµP¶PSC-CÍC,CH CÍP»C-Pr P·P°CÍC,PsCÍPsPICrPIP°C,Pë PsP»P°PSP·P°PiC-PS PíP°C†C-C”PSC,P°Pj, CÍPeC- PíCĤPëPNPjP°CHC,CH PµC,P°PSPsP» P°P±Ps P»C-PeP°CĤCÍCHPeC- P·P°CÍPsP±Pë, C%Ps PjPsP¶CÍC,CH CÍPíCĤPëC†PëPSPëC,Pë PíCĤPëPiPSC-C†PµPSPSCÍ PíPĶPÿ.

PÿCrPíCrC,PSC” P·P°CÍC,PsCÍCrPIP°PSPSCÍ PsP»P°PSP·P°PiC-PSCr P· P°PSC,PëPiP°CĤPeC-PSCÍPsPSC-C†PSPëPjPë PíCĤPµPíP°CĤP°C,P°PjPë PíP°C†C-C”PSC,P°Pj C-P· C...PIPsCĤPsP±PsCH PµP°CĤPeC-PSCÍPsPSP° C,P° PrPµPjPµPSC†C-C”CH PSPµ CĤPµPePsPjPµPSPPrCÍC”C,CHCÍCÍ.

P†PSC,PµCĤPIP°P» QTCÍ

PÿP»C-Pr P· PsP±PµCĤPµP¶PSC-CÍC,CH PíCĤPëP·PSP°C†P°C,Pë PsP»P°PSP·P°PiC-PS P· C-PSC€PëPjPë PíCĤPµPíP°CĤP°C,P°PjPë C-P· PIC-PrPsPjPëPj CĤPëP·PëPePsPj PíC-PrPIPëC%PµPSPSCÍ C-PSC,PµCĤPIP°P»Cr QTCÍ.

PĤCÍPsP±P»PëIPsCÍC,C- P·P°CÍC,PsCÍC¿PIP°PSPSCÍ.

PµC-Pr C†P°CÍ P°PSC,PëPíCÍPëC...PsC,PëC†PSPsC— C,PµCĤP°PiC-C— PíPsP»C-PíC€PµPSPSCÍ

PeP»C-PSC-C†PSPsPiPs CÍC,P°PSCÍ PİP°C†C-C°PSC,P° PjPsP¶Pµ C,CĤPëPIP°C,Pë PIC-Pr
PeC-P»CHPePsC... PrPSC-PI PrPs PeC-P»CHPePsC... C,PëP¶PSC-PI. PµCĤPsC,CİPiPsPj
C†CHPsPiPs PiPµCĤC-PsPrCÍ CÍP»C-Pr CĤPµC,PµP»CHPSPs CÍPiPsCÍC,PµCĤC-PiP°C,Pë P·P°
PİP°C†C-C°PSC,P°PjPë.

*PµCÍPëC...PsP· C,P° (P°P±Ps) CĤPsP·P»P°PrPë PiPsPIPµPrC-PSPePë, PiPsPI'CİP·P°PSC- P·
PrPµPjPµPSC†C-C°CĤ*

PĥP»P°PSP·P°PiC-PS PSPµ CĤPµPePsPjPµPSPPrCÍC°C,CHCÍCİ P·P°CÍC,PsCÍPsPICÍPIP°C,Pë
PİP°C†C-C°PSC,P°Pj P·C- CÍPëPjPiC,PsPjP°PjPë PiCÍPëC...PsP·CÍ C,P°/P°P±Ps
PiPsCĤCÍC€PµPSPSCİPjPë PiPsPIPµPrC-PSPePë, PiPsPI'CİP·P°PSPëPjPë P·
PrPµPjPµPSC†C-C°CĤ, CÍ P·PI'CİP·PeCÍ P· PiC-PrPIPëC%PµPSPSCİPj
P»PµC,P°P»CHPSPsCÍC,C- C,P° CĤPëP·PëPeCÍ C†PµCĤPµP±CĤPsPIP°CÍPeCÍP»CİCĤPSPëC...
PIPëPiP°PrPeC-PI. Pj PiCĤPsC†PµCÍC- PiP»P°C†PµP±Ps-PePsPSC,CĤPsP»CHPsPIP°PSPëC...
PeP»C-PSC-C†PSPëC... PrPsCÍP»C-PrP¶PµPSCH (C,CĤPëPIP°P»C-CÍC,CĤ 6-12 C,PëP¶PSC-PI)
P·P° CÍC†P°CÍC,C- PiP°C†C-C°PSC,C-PI P»C-C,PSCHPsPiPs PIC-PeCÍ (CÍPµCĤPµPrPSC-PNë
PIC-Pe 78 CĤPsPeC-PI), CİPeC- CÍC,CĤP°P¶PrP°CĤC,CH PSP° PiCÍPëC...PsP· C,P°/P°P±Ps
PiPsCĤCÍC€PµPSPSCİ PiPsPIPµPrC-PSPePë, PiPsPIBĤ™ CİP·P°PSC- P· PrPµPjPµPSC†C-C°CĤ,
PeC-P»CHPeC-CÍC,CH P»PµC,P°P»CHPSPëC... PIPëPiP°PrPeC-PI P±CÍP»P° CÍ 2 CĤP°P·Pë
PIPëC%P° CÍ PİP°C†C-C°PSC,C-PI, CİPeC- PiCĤPëPNëPjP°P»Pë PsP»P°PSP·P°PiC-PS,
PiPsCĤC-PIPSCİPSPs P· PiP»P°C†PµP±Ps (3,5 % PiCĤPsC,Pë 1,5 % PIC-PrPiPsPIC-PrPSPs).
P'PëCÍPsPeP° P»PµC,P°P»CHPSC-CÍC,CH PSPµ P±CÍP»P° PiPsPIBĤ™ CİP·P°PSP° P·
PIPµP»PëC†PëPSPsCĤ P·P°CÍC,PsCÍPsPICÍPIP°PSPëC... PrPsP· PsP»P°PSP·P°PiC-PSCÍ
(CÍPµCĤPµPrPSCİ PrPsP±PsPIP° PrPsP·P° CÍC,P°PSPsPIPëP»P° 4,4 PjPi) P°P±Ps P·
C,CĤPëPIP°P»C-CÍC,CĤ P»C-PeCÍPIP°PSPSCİ. PαP°PeC,PsCĤPë CĤPëP·PëPeCÍ, CİPeC-
PjPsP¶CÍC,CH CÍPiCĤPëC†PëPSPëC,Pë PiC-PrPIPëC%PµPSPSCİ P»PµC,P°P»CHPSPsCÍC,C-,
PIPeP»CĤC†P°CĤC,CH PIC-Pe PIC-Pr 65 CĤPsPeC-PI, PrPëCÍC,,P°PiC-CĤ, B CÍPµPrP°C†C-CĤ,
PSPµPrPsC—PrP°PSPSCİ C,P° P·PSPµPIPsPrPSPµPSPSCİ, P»PµPiPµPSPµPIC- C...PIPsCĤPsP±Pë
(PiPSPµPIPjPsPSC-Cİ P· P°P±Ps P±PµP· P°CÍPiC-CĤP°C†C-C—), CÍCÍPiCÍC,PSC°
P·P°CÍC,PsCÍCÍPIP°PSPSCİ P±PµPSP·PsPrC-P°P·PµPiC-PSC-PI. PµCĤPsC,Pµ PIPëPiP°PrPePë
P»PµC,P°P»CHPSPsCÍC,C- P±CÍP»Pë PIPëC%P°C- PiCĤPë C,PµCĤP°PiC-C—
PsP»P°PSP·P°PiC-PSPsPj, PSC-P¶ PiCĤPë PiCĤPëPNëPsPjC- PiP»P°C†PµP±Ps,
PSPµP·P°P»PµP¶PSPs PIC-Pr C,,P°PeC,PsCĤC-PI CĤPëP·PëPeCÍ.

Pj PiCĤPsC†PµCÍC- C†PëC... PeP»C-PSC-C†PSPëC... PrPsCÍP»C-PrP¶PµPSCH
CÍPiPsCÍC,PµCĤC-PiP°P»PëCÍCİ PIPëPiP°PrPePë
C†PµCĤPµP±CĤPsPIP°CÍPeCÍP»CİCĤPSPëC... PiPsP±C-C†PSPëC... CĤPµP°PeC†C-PNë
(PSP°PiCĤPëPeP»P°Pr, C-PSCÍCÍP»CHC,, C,CĤP°PSP·PëC,PsCĤPSPëPNë
C-C€PµPjC-C†PSPëPNë C-PSCÍCÍP»CHC,,) CÍ C,PsPjCÍ C†PëCÍP»C- P·
P»PµC,P°P»CHPSPëPj PSP°CÍP»C-PrPePsPj. PĥC-P»CHPeC-CÍC,CH
C†PµCĤPµP±CĤPsPIP°CÍPeCÍP»CİCĤPSPëC... PiPsP±C-C†PSPëC... CĤPµP°PeC†C-PNë
P±CÍP»P° CÍ 3 CĤP°P·Pë PIPëC%P° CÍ PİP°C†C-C°PSC,C-PI, CİPeC- PiCĤPëPNëPjP°P»Pë
PsP»P°PSP·P°PiC-PS, PiPsCĤC-PIPSCİPSPs P· PiP°C†C-C°PSC,P°PjPë, CİPeC-
PiCĤPëPNëPjP°P»Pë PiP»P°C†PµP±Ps (1,3 % PiCĤPsC,Pë 0,4 % PIC-PrPiPsPIC-PrPSPs).
PjCÍC- PiP°C†C-C°PSC,Pë, CİPeC- PiCĤPëPNëPjP°P»Pë PsP»P°PSP·P°PiC-PS P°P±Ps
PiP»P°C†PµP±Ps C- CÍ CİPePëC... CÍPiPsCÍC,PµCĤC-PiP°P»PëCÍCİ
C†PµCĤPµP±CĤPsPIP°CÍPeCÍP»CİCĤPSC- PiPsP±C-C†PSC- CĤPµP°PeC†C-C—,
PjP°P»Pë C,,P°PeC,PsCĤPë CĤPëP·PëPeCÍ. P'C-Pe PIC-Pr 75 CĤPsPeC-PI C,P°
CÍCÍPrPëPSPSPëPNë/P·PjC-C€P°PSPëPNë C,PëPi PrPµPjPµPSC†C-C— P±CÍP»Pë
C-PrPµPSC,PëC,,C-PePsPIP°PSC- CİPe C,,P°PeC,PsCĤPë CĤPëP·PëPeCÍ

C†PμCḡPμP±CḡPsPIP°C†PeC†P»CḡCḡPSPëC... PïPsP±C-C†PSPëC... CḡPμP°PeC†C-PNë
PïCḡPë C,PμCḡP°PïC-C— PsP»P°PSP·P°PïC-PSPsPj. P•C„PμPeC,PëPIPSC-C†C,CH
PsP»P°PSP·P°PïC-PSC† PSPμ P±C†P»P° PIC†C,P°PSPsPIP»PμPSP° C† PïCḡPsC†PμC†C-
PrP°PSPëC... PrPsC†P»C-PrP¶PμPSCḡ.

P†PIPsCḡPsP±P° PμP°CḡPeC-PSC†PsPSP°

PkPμ CḡPμPePsPjPμPSP†PsPIP°PSPs P·P°C†C,PSC†C†PIP°PSPSCḡ PsP»P°PSP·P°PïC-PSC†
C† C,PμCḡP°PïC-C— PïC†PëC...PsP·C-PI, C°Ps P°C†PsC†C-PNëPsPIP°PSC- P·
P°PïPsPSC-C†C,P°PjPë PrPsPïP°PjC-PSC† PI PïP°C†C-C°PSC,C-PI C-P·
C...PIPsCḡPsP±PsCḡ PμP°CḡPeC-PSC†PsPSP°. PJ PïCḡPsC†PμC†C-
PeP»C-PSC-C†PSPëC... PrPsC†P»C-PrP¶PμPSCḡ PrC†P¶Pμ C†P°C†C,Ps
C†PïPsC†C,PμCḡC-PiP°P»PsC†Cḡ PïPsPiC-CḡC€PμPSPSCḡ C†PëPjPïC,PSPjP°C,PëPePë
C...PIPsCḡPsP±Pë PμP°CḡPeC-PSC†PsPSP° C,P° PiP°P»CḡC†PëPSP°C†C-PNë,
C†P°C†C,C-C€Pμ, PSC-P¶ PïCḡPë PïCḡPëPNëPsPjC- PïP»P°C†PμP±Ps (PrPëPI. C,P°PePsP¶
CḡPsP·PrC-P» B«PμPsP±C-C†PSC- CḡPμP°PeC†C-C—B»); PïCḡPë P»C-PeC†PIP°PSPSC-
PïC†PëC...PsC,PëC†PSPëC... C†PëPjPïC,PSPjC-PI C,PμCḡP°PïC-Cḡ
PsP»P°PSP·P°PïC-PSPsPj PSPμ P±C†P»P° P±C-P»CHC€ PμC„PμPeC,PëPIPSPsCḡ
PïPsCḡC-PIPSCḡPSPs P·C- P·P°C†C,PSC†C†PIP°PSPSCḡPj PïP»P°C†PμP±Ps. PJ C†PëC...
PrPsC†P»C-PrP¶PμPSPSCḡC... PIPëPjP°PiP°P»PsC†Cḡ, C°PsP± C†C,P°PS
PïP°C†C-C°PSC,C-PI P±C†PI C†C,P°P±C-P»CHPSPëPNë, PePsP»Pë PIPsPSPë
PïCḡPëPNëPjP°P»Pë PSP°PNëPjPμPSC€C† PμC„PμPeC,PëPIPSC† PrPsP·C†
P°PSC,PëPïP°CḡPeC-PSC†PsPSC-C†PSPëC... P»C-PeP°CḡC†CHPePëC... P·P°C†PsP±C-PI
(P°PiPsPSC-C†C,C-PI PrPsPïP°PjC-PSC†), P° C,P°PePsP¶ PïCḡPëPNëPjP°P»Pë C,C-
C†P°PjC- P°PSC,PëPïP°CḡPeC-PSC†PsPSC-C†PSC- P»C-PeP°CḡC†CHPeC- P·P°C†PsP±Pë
PïCḡPsC,CḡPiPsPj C†C†CHPsPiPs PrPsC†P»C-PrP¶PμPSPSCḡ. PÿPμCḡP°PïC-Cḡ
PsP»P°PSP·P°PïC-PSPsPj P±C†P»Ps CḡPsP·PïPsC†P°C,Ps P· PrPsP·Pë 2,5 PjPi PSP°
PrPsP±C†, CḡPeC† P·P±C-P»CHC€C†PIP°P»Pë C€P»CḡC...PsPj C,PëC,CḡC†PIP°PSPSCḡ
PrPs PjP°PeC†PëPjP°P»CHPSPsPiPs PïPsPeP°P·PSPëPeP° 15 PjPi PSP° PrPsP±C†.

PkPμPNëCḡPsP»PμPïC,PëC†PSPëPNë P·P»PsCḡPeC-C†PSPëPNë C†PëPSP†CḡPsPj (PkP—Pÿ)

PkP—Pÿ Bḡ“ C†Pμ PïPsC,PμPSC†C-PNëPSPs P»PμC,P°P»CHPSPëPNë
C†PëPjPïC,PSPjPsPePsPjPïP»PμPeC†, PïPsPIBḡ™ CḡP·P°PSPëPNë P· PïCḡPëPNëPsPjPsPj
P°PSC,PëPïC†PëC...PsC,PëC†PSPëC... PïCḡPμPïP°CḡP°C,C-PI. P C-PrPePs
PïPsPIC-PrPsPjP»CḡP»PsC†Cḡ PïCḡPs PIPëPïP°PrPePë PkP—Pÿ PïC-Pr C†P°C†
P·P°C†C,PSC†C†PIP°PSPSCḡ PsP»P°PSP·P°PïC-PSC†. PḡP»C-PSC-C†PSPëPjPë
PïCḡPsCḡPIP°PjPë PkP—Pÿ C° PïC-PïPμCḡPïC-CḡPμPeC†C-Cḡ, PjBḡ™ CḡP·PsPIP°
CḡPëPïC-PrPSC-C†C,CH, PIC,CḡP°C,P° C†PIC-PrPsPjPsC†C,C- C,P° C†PëPjPïC,PSPjPë
C†PμCḡC†PμPIPsC— PSPμC†C,P°P±C-P»CHPSPsC†C,C- (PSPμCḡPμPiC†P»CḡCḡPSC-
PïC†P»CHC† P°P±Ps P·PjC-PSP° P°CḡC,PμCḡC-P°P»CHPSPsPiPs C,PëC†PeC†,
C,P°C...C-PeP°CḡPrC-Cḡ, PïC-PrPIPëC°PμPSPμ PïPsC,PSPiPëPrC-P»PμPSPSCḡ C,P°
C†PμCḡC†PμPIP° P°CḡPëC,PjC-Cḡ). P°PsPrP°C,PePsPIC- PsP·PSP°PePë PjPsP¶C†C,CH
PIPeP»CḡC†P°C,Pë PïC-PrPIPëC°PμPSPëPNë CḡC-PIPμPSCḡ
PeCḡPμP°C,PëPSC-PSC„PsC†C„PsPeC-PSP°P·Pë, PjC-PsPiP»PsP±C-PSC†CḡC-Cḡ
(CḡP°P±PrPsPjC-PsP»C-P·) C,P° PiPsC†C,CḡC† PSPëCḡPePsPIC†
PSPμPrPsC†C,P°C,PSC-C†C,CH. PḡP»C-PSC-C†PSPëPNë PïCḡPsCḡPI PkP—Pÿ P°P±Ps
PSP°CḡPIPSC-C†C,CH PïC-PïPμCḡC,PμCḡPjC-C— P±PμP· PeP»C-PSC-C†PSPsPiPs

PJ PĪP»P°C†PμP±PsPePsPSC,CĤĴPsP»CHbPsPIP°PSPsPjCř PeP»C-PSC-C‡PSPsPjCř
PrPsCĴP»C-PrP¶PμPSPSC- Cř PĪP°C†C-C''PSC,C-PI, CĴPeC- P»C-PeCřPIP°P»PëCĴCĴ
PsP»P°PSP·P°PĭC-PSPsPj, CĴPĭPsCĴC,PμCĤĴC-PĪP°P»PëCĴCĴ PSPμP±P°P¶P°PSC-
P·PjC-PSPë Cř PePsPSC†PμPSC,CĤĴP°C†C-C— P»C-PĭC-PrC-PI (PrPëPI. CĤĴPsP·PrC-P»
B«PμPsP±C-C‡PSC- CĤĴPμP°PeC†C-C—B»). PJ CĤĴP°P·C- PIPëCĴPIP»PμPSPSCĴ P·PjC-PS
Cř PePsPSC†PμPSC,CĤĴP°C†C-C— P»C-PĭC-PrC-PI PSPμPsP±C...C-PrPSPs
PĭCĤĴPsPIPsPrPëC,Pë PIC-PrPĭPsPIC-PrPSPμ P»C-PeCřPIP°PSPSCĴ, P·PsPeCĤĴPμPjP° Cř
PĪP°C†C-C''PSC,C-PI P· PĭPsCĤĴCřC€PμPSPSCĴPjPë PsP±PjC-PSCř P»C-PĭC-PrC-PI C,P°
Cř PĪP°C†C-C''PSC,C-PI C-P· C,,P°PeC,PsCĤĴP°PjPë CĤĴPëP·PëPeCř CĤĴPsP·PIPëC,PeCř
C,P°PePëC... PĭPsCĤĴCřC€PuPSCĤ. PμP°C†C-C''PSC,P°Pj, CĴPeC-

P·P°CÍC,PsCÍPsPICrCĤC,CH P°PSC,PëPíCÍPëC...PsC,PëC±PSC- P»C-PeP°CĤCÍCHPeC-
P·P°CÍPsP±Pë, PI C,PsPjCr C±PëCÍP»C- P»C-PeP°CĤCÍCHPePëPN₀ P·P°CÍC-P±
P—PsP»P°C,,CĤPμPS PαP°CÍC,, PSPμPsP±C...C-PrPSPs CĤPμPiCrP»CÍCĤPSPs
PePsPSC,CĤPsP»CĤPIP°C,Pë CĤC-PIPμPSCĤ P»C-PíC-PrC-PI PIC-PrPíPsPIC-PrPSPs
PrPs P·P°C,PIPμCĤPrP¶PμPSPëC... CĤPμPePsPjPμPSPrP°C†C-PN₀, C°₀₀Ps
CÍC,PsCÍCrCĤC,CHCÍCÍ P°PSC,PëPíCÍPëC...PsC,PëC±PSPsC— C,PμCĤP°PíC-C—,
PSP°PíCĤPëPeP»P°Pr PSP° PíPsC±P°C,PeCr P»C-PeCrPIP°PSPSCÍ, C±PμCĤPμP· 12
C,PëP¶PSC-PI, P° C,P°PePsP¶ Cr PíPsPrP°P»CHC€PsPjCr PePsP¶PSC- 5 CĤPsPeC-PI.

PĥPSC,PëC...PsP»C-PSPμCĤPiC-C±PSP° P°PeC,PëPIPSC-CÍC,CH

PμPsPíCĤPë PIPëCÍPIP»PμPSPSCÍ P°PSC,PëC...PsP»C-PSPμCĤPiC-C±PSPsC—
P°PeC,PëPIPSPsCÍC,C- PsP»P°PSP·P°PíC-PSCr *in vitro*, Cr PíCĤPsC†PμCÍC-
PeP»C-PSC-C±PSPëC... PrPsCÍP»C-PrP¶PμPSCĤ PrPsPIPμPrPμPSPs PSPëP·CHPeCr
C±P°CÍC,PsC,Cr CĤPsP·PIPëC,PeCr PíPsPIBĤ™ CÍP·P°PSPëC... P· PSPμCĤ
P°PSC,PëC...PsP»C-PSPμCĤPiC-C±PSPëC... CÍPIPëC°. PhPrPSP°Pe C±PμCĤPμP·
PsP±PjPμP¶PμPSPSCÍ PeP»C-PSC-C±PSPsPiPs PrPsCÍPIC-PrCr C°₀₀PsPrPs
P·P°CÍC,PsCÍCrPIP°PSPSCÍ PsP»P°PSP·P°PíC-PSCr PíP°C†C-C''PSC,P°Pj P·C-
CÍCrPíCrC,PSC-PjPë P·P°C...PIPsCĤCĤPIP°PSPSCÍPjPë CÍP»C-Pr
PrPsC,CĤPëPjCrPIP°C,PëCÍCÍ PsP±PμCĤPμP¶PSPsCÍC,C- PíCĤPë
PíCĤPëP·PSP°C±PμPSPSC- PíCĤPμPíP°CĤP°C,Cr PíP°C†C-C''PSC,P°Pj C-P·
PeP»C-PSC-C±PSPs P·PSP°C±CrC°₀₀PsCĤ PiC-PíPμCĤC,CĤPsC,,C-C''CĤ
PíCĤPsCÍC,P°C,Pë, PíP°CĤP°P»C-C,PëC±PSPsCĤ PePëC€PePsPIPsCĤ
PSPμPíCĤPsC...C-PrPSC-CÍC,CĤ P°P±Ps PíPsPrC-P±PSPëPjPë
P·P°C...PIPsCĤCĤPIP°PSPSCÍPjPë.

PμPsPeP°P·PSPëPePë C,,C±PSPeC†C-C— PíPμC±C-PSPePë

PμCĤPë P·P°CÍC,PsCÍCrPIP°PSPSC- PsP»P°PSP·P°PíC-PSCr C±P°CÍC,Ps
CÍPíPsCÍC,PμCĤC-PíP°PICÍCÍ C,CĤP°PSP·PëC,PsCĤPSPëPN₀
P°CÍPëPjPíC,PsPjP°C,PëC±PSPëPN₀ PíC-PrPN₀PsPj CĤC-PIPSCÍ PíPμC±C-PSPePsPIPëC...
C,CĤP°PSCÍP°PjC-PSP°P· P°P»P°PSC-PSP°PjC-PSPsC,CĤP°PSCÍC,,PμCĤP°P·Pë
(PĥP»PĥPÿ) C,P° P°CÍPíP°CĤC,P°C,P°PjC-PSPsC,CĤP°PSCÍC,,PμCĤP°P·Pë (PĥCÍPĥPÿ),
PsCÍPsP±P»PëPIPs PSP° PíPsC±P°C,PeCr P»C-PeCrPIP°PSPSCÍ. PkPμPsP±C...C-PrPSPs
PrPsC,CĤPëPjCrPIP°C,PëCÍCÍ PsP±PμCĤPμP¶PSPsCÍC,C- C,P°
PsCĤPíP°PSC-P·CÍPIP°C,Pë PíPsPrP°P»CHC€Pμ CÍPíPsCÍC,PμCĤPμP¶PμPSPSCÍ P·P°
PíP°C†C-C''PSC,P°PjPë P· PíC-PrPIPëC°₀₀PμPSPëPj CĤC-PIPSPμPj PĥP»PĥPÿ C,P°/P°P±Ps
PĥCÍPĥPÿ, PíP°C†C-C''PSC,P°PjPë P· PsP·PSP°PeP°PjPë C,P° CÍPëPjPíC,PsPjP°PjPë
PíPsCĤCrC€PμPSPSCÍ C,,C†PSPeC†C-C— PíPμC±C-PSPePë. PμP°C†C-C''PSC,P°Pj C-P·
PíC-PrPIPëC°₀₀PμPSPëPj CĤC-PIPSPμPj PĥP»PĥPÿ C,P°/P°P±Ps PĥCÍPĥPÿ,
PsP·PSP°PeP°PjPë C,P° CÍPëPjPíC,PsPjP°PjPë PíPsCĤCrC€PμPSPSCÍ
PrC-CÍP»CHPSPsCÍC,C- PíPμC±C-PSPePë, CÍC,P°PSPsPj, PíPsPIBĤ™ CÍP·P°PSPëPj P·
PíPμC±C-PSPePsPIPsCĤ PSPμPrPsCÍC,P°C,PSC-CÍC,CĤ, P° C,P°PePsP¶
PíP°C†C-C''PSC,P°Pj, CÍPeC- PíCĤPëPN₀PjP°CĤC,CH PíPsC,PμPSC†C-PN₀PSPs
PíPμPíP°C,PsC,PsPeCÍPëC±PSC- PíCĤPμPíP°CĤP°C,Pë, PsP»P°PSP·P°PíC-PS CÍP»C-Pr
PíCĤPëP·PSP°C±P°C,Pë P· PsP±PμCĤPμP¶PSC-CÍC,CĤ. PμCĤPë PIPëCÍPIP»PμPSPSC-
PíPμPíP°C,PëC,Cr (PIPeP»CĤC±P°CĤC±Pë PíPμPíP°C,PsC†PμP»CĤP»CÍCĤPSPμ,
C...PsP»PμCÍC,P°C,PëC±PSPμ P°P±Ps P·PjC-C€P°PSPμ CrCĤP°P¶PμPSPSCÍ PíPμC±C-PSPePë)

PsP»P°PSP·P°PīC-PS PSPμPsP±C...C-PrPSPs PIC-PrPjC-PSPēC,Pē.

PkPμPNεC,CḡPsPiPμPSC-Cḡ

PhP»P°PSP·P°PīC-PS PSPμPsP±C...C-PrPSPs P· PsP±PμCḡPμPḡPSC-CīC,Cḡ
PīCḡPēP·PSP°C†P°C,Pē PīCḡPē PSPēP·CHPePsPjCḡ CḡC-PIPSC- P»PμPNεPePsC†PēC,C-PI
C,P°/P°P±Ps PSPμPNεC,CḡPsC,,C-P»C-PI P· P±CḡPrCH-CḡPePsC— PīCḡPēC†PēPSPē
PīP°C†C-C''PSC,P°Pj, CḡPeC- P·P°CīC,PsCīPsPICḡCḡC,CH P»C-PeP°CḡCīCHPeC-
P·P°CīPsP±Pē, C%Ps PjPsPḡCḡC,CH CīPīCḡPēC†PēPSPēC,Pē PSPμPNεC,CḡPsPiPμPSC-Cḡ,
PīP°C†C-C''PSC,P°Pj, CḡPeC- PjP°CḡC,CH PI P°PSP°PjPSPμP·C- PjPμPrPēPeP°PjPμPSC,PsP·PSPμ
PīCḡPēPiPSC-C†PμPSPSCḡ/C,PsPeCīPēC†PSPμ CḡCḡP°PḡPμPSPSCḡ PeC-CīC,PePsPIPsPiPs
PjPsP·PeCḡ, PīP°C†C-C''PSC,P°Pj C-P· PīCḡPēPiPSC-C†PμPSPSCḡPj PeC-CīC,PePsPIPsPiPs
PjPsP·PeCḡ, CīPīCḡPēC†PēPSPμPSPēPj CīCḡPīCḡC,PSC-PjPē P·P°C...PIPSCḡCHPIP°PSPSCḡPjPē,
PsPīCḡPsPjC-PSPμPSPSCḡPj C†Pē C...C-PjC-PsC,PμCḡP°PīC-C''Cḡ, C,P° PīP°C†C-C''PSC,P°Pj C-P·
PiC-PīPμCḡPμPsP·PēPSPsC,,C-P»C-C''Cḡ C,P° PjC-C''P»PsPīCḡPsP»C-C,,PμCḡP°C,PēPIPSPēPj
P·P°C...PIPsCḡCHPIP°PSPSCḡPj. PkPμPNεC,CḡPsPiPμPSC-Cḡ C'' C†P°CīC,PsCḡ
PīPsP±C-C†PSPsCḡ CḡPμP°PeC†C-C''Cḡ PīCḡPē CīPīC-P»CHPSPsPjCḡ
P·P°CīC,PsCīCḡPIP°PSPSC- PIP°P»CHPīCḡPsP°C,Cḡ C,P° PsP»P°PSP·P°PīC-PSCḡ (PrPēPI.
CḡPsP·PrC-P» B«PμPsP±C-C†PSC- CḡPμP°PeC†C-C—B»).

P'C-PrPjC-PSP° P»C-PeCḡPIP°PSPSCḡ

PμCḡPē CḡC-P·PePsPjCḡ PīCḡPēPīPēPSPμPSPSC- C,PμCḡP°PīC-C— CḡC-PrPePs (≥ 0,01
% PrPs 0,1 %) PīPsPIC-PrPsPj»CḡP»PsCīCḡ PīCḡPs PiPsCīC,CḡC- CīPēPjPīC,PsPjPē,
P·PsPeCḡPμPjP° PīCḡPs PSP°PrPjC-CḡPSPμ PiPsC,PsPIPēPrC-P»PμPSPSCḡ,
P±PμP·CīPsPSPSCḡ, C,CḡPμPjPsCḡ, PIC-PrC†CḡC,C,Cḡ CīC,CḡP°C...Cḡ, PSCḡPrPsC,Cḡ
P°P±Ps P±P»CḡHIP°PSPSCḡ.

P†PSC,PμCḡPIP°P» QT

Pj PeP»C-PSC-C†PSPēC... PrPsCīP»C-PrPḡPμPSPSCḡC... P·PSP°C†PSPμ PeP»C-PSC-C†PSPμ
P·PSP°C†PμPSPSCḡ PīCḡPsP»PsPSPiP°C†C-C— C-PSC,PμCḡPIP°P»Cḡ QT Cḡ
PīP°C†C-C''PSC,C-PI, CḡPeC-

P»C-PeCḡPIP°P»PēCīCḡ PsP»P°PSP·P°PīC-PSPsPj (PαCḡPμPrPμCḡC-PeP° QT
PePsCḡPμPeC†C-Cḡ ≥ 500 PjC-P»C-CīPμPeCḡPSPḡ (PjCīPμPe) Cḡ P±CḡPrCH-CḡPePēPNε
C†P°Cī PīC-CīP»Cḡ PīPsC†P°C,PeCḡ C,PμCḡP°PīC-C—, Cḡ PīP°C†C-C''PSC,C-PI P·
P±P°P·PsPIPsCḡ P»C-PSC-C''Cḡ QTcF < 500 PjCīPμPe PrPs PīPsC†P°C,PeCḡ
C,PμCḡP°PīC-C—), PIPēCḡPIP»CḡP»PsCīCḡ PSPμC†P°CīC,Ps (≥ 0,1 % PrPs 1 %).
PμPsCḡC-PIPSCḡPSPs P· PīP»P°C†PμP±Ps PSPμ PIPēCḡPIP»PμPSPs P·PSP°C†PSPsC—
CḡC-P·PSPēC†C- Cḡ C†P°CīC,PsC,C- P°CīPsC†C-PNεPsPIP°PSPēC... PeP°CḡPrC-P°P»CHPSPēC...
PīPsP±C-C†PSPēC... CḡPμP°PeC†C-PNε. PhPrPSP°Pe CīP»C-Pr P±CḡC,Pē
PsP±PμCḡPμPḡPSPēPjPē Cḡ CḡP°P·C- PīCḡPēP·PSP°C†PμPSPSCḡ PsP»P°PSP·P°PīC-PSCḡ
PsPrPSPsC†P°CīPSPs P· P»C-PeP°CḡCīCHPePēPjPē P·P°CīPsP±P°PjPē, CḡPeC-
P·P±C-P»CHCḡCḡC,CH C-PSC,PμCḡPIP°P» QT Cī, PsCīPsP±P»PēPIPs Cḡ
PīP°C†C-C''PSC,C-PI P»C-C,PSCḡPsPiPs PIC-PeCḡ, PīP°C†C-C''PSC,C-PI C-P·
PICḡPsPrPḡPμPSPēPj CīPēPSPḡCḡPsPjPsPj QT, P·P°CīC,C-PNεPSPsCḡ CīPμCḡC†PμPIPsCḡ
PSPμPrPsCīC,P°C,PSC-CīC,Cḡ, CīPμCḡC†PμPIPsCḡ PiC-PīPμCḡC,CḡPsC,,C-C''Cḡ,
PiC-PīPsPeP°P»C-C''PjC-C''Cḡ P°P±Ps PiC-PīPsPjP°PiPSPμP·PμPjC-C''Cḡ.

PḡCḡPsPjP±PsPμPjP±PsP»C-Cḡ

$P\acute{K}P_{\mu}C\ddot{P}^{\circ}C\acute{I}C, P_s \ddot{P}iPsPIC-PrPsPjP\gg C\ddot{I}P\gg PsC\acute{I}C\ddot{I} \ddot{P}iC\ddot{H}Ps C, P\ddot{e}PjC\ddot{P}^{\circ}C\acute{I}PsPIP\ddot{e}PN_{\ddot{e}}$
 $P\cdot P\ddot{I}B\ddot{H}^{\text{TM}} C\ddot{I}P\cdot PsPe PjC-P\P P\gg C-PeC\acute{r}PIP^{\circ}PSPSC\ddot{I}Pj PsP\gg P^{\circ}PSP\cdot P^{\circ}\ddot{P}iC-PSPsPj C, P^{\circ}$
 $PIP\ddot{e}P\ddot{I}P^{\circ}PrPeP^{\circ}PjP\ddot{e} C\ddot{H}PsP\cdot PIP\ddot{e}C, PeC\acute{r} PIP_{\mu}PSPsP\cdot PSPsC-$
 $C, C\ddot{H}PsPjP\pm PsP_{\mu}PjP\pm PsP\gg C-C- (\geq 0,1 \% B\ddot{H}^{\text{TM}} < 1 \%).$ $P_{\mu}C\ddot{H}P\ddot{e}C\ddot{P}ePSPSPs-$
 $PSP^{\circ}C\acute{I}P\gg C-PrPePsPIPsPiPs P\cdot P\ddot{I}B\ddot{H}^{\text{TM}} C\ddot{I}P\cdot PeC\acute{r} PjC-P\P P\gg C-PeC\acute{r}PIP^{\circ}PSPSC\ddot{I}Pj$
 $PsP\gg P^{\circ}PSP\cdot P^{\circ}\ddot{P}iC-PSPsPj C, P^{\circ} C\ddot{H}PsP\cdot PIP\ddot{e}C, PePsPj PIP_{\mu}PSPsP\cdot PSPsC-$
 $C, C\ddot{H}PsPjP\pm PsP_{\mu}PjP\pm PsP\gg C-C- PSP_{\mu} PIC\acute{I}C, P^{\circ}PSPsPIP\gg P_{\mu}PSPs. PhPrPSP^{\circ}Pe,$
 $P\pm P_{\mu}C\ddot{H}C\acute{r}C\ddot{P}e PrPs C\acute{r}PIP^{\circ}PiP\ddot{e} C, P_{\mu}, C\%Ps C\acute{r} \ddot{P}iP^{\circ}C\ddot{I}C-C''PSC, C-PI C-P\cdot$
 $C\epsilon P\ddot{e}P\cdot PsC,, C\ddot{H}P_{\mu}PSC-C''C\ddot{H} C\ddot{P}^{\circ}C\acute{I}C, Ps C\ddot{H}PsP\cdot PIP\ddot{e}PIP^{\circ}C''C, C\ddot{H}C\acute{I}C\ddot{I}$
 $C\acute{I}C... P\ddot{e}P\gg C\ddot{H}PSC-C\acute{I}C, C\ddot{H} PrPs C, C\ddot{H}PsPjP\pm PsP_{\mu}PjP\pm PsP\gg C-C-,$
 $PSP_{\mu}PsP\pm C... C-PrPSPs PIC\ddot{H}P^{\circ}C... PsPIC\acute{r}PIP^{\circ}C, P\ddot{e} C\acute{r}C\acute{I}C- PjPsP\P P\gg P\ddot{e}PIC-$
 $C,, P^{\circ}PeC, PsC\ddot{H}P\ddot{e} C\ddot{H}P\ddot{e}P\cdot P\ddot{e}PeC\acute{r}, PSP^{\circ}\ddot{P}iC\ddot{H}P\ddot{e}PeP\gg P^{\circ}Pr C-PjPjPsP\pm C-P\gg C-P\cdot P^{\circ}C\ddot{I}C-C\ddot{H}$
 $\ddot{P}iP^{\circ}C\ddot{I}C-C''PSC, P^{\circ}, C, P^{\circ} PIP\P P\ddot{e}PIP^{\circ}C, P\ddot{e} PIC\acute{I}C-C... PSP_{\mu}PsP\pm C... C-PrPSP\ddot{e}C...$
 $\ddot{P}iPs\ddot{P}iP_{\mu}C\ddot{H}P_{\mu}PrP\P C\acute{r}PIP^{\circ}P\gg C\ddot{H}PSP\ddot{e}C... P\cdot P^{\circ}C... PsPrC-PI.$

$P-P^{\circ}\ddot{P}iP^{\circ}P\gg C\ddot{H}PSP^{\circ} P^{\circ}PeC, P\ddot{e}PIPSC-C\acute{I}C, C\ddot{H} P\ddot{I}P\acute{K}P\ddot{Y}$

$P^{\circ}C\ddot{H}P^{\circ}C... PsPIC\acute{r}C\ddot{H}C\ddot{P}e \ddot{P}iP_{\mu}C\ddot{H}P_{\mu}PIP^{\circ}P\P PSP\ddot{e}PN_{\ddot{e}} PIP\ddot{I}P\gg P\ddot{e}PI PsP\gg P^{\circ}PSP\cdot P^{\circ}\ddot{P}iC-PSC\acute{r}$
 $PSP^{\circ} P\ddot{I}P\acute{K}P\ddot{Y}, PSP_{\mu}PsP\pm C... C-PrPSPs \ddot{P}iC\ddot{H}PsPIPsPrP\ddot{e}C, P\ddot{e} PrPsPrP^{\circ}C, PePsPIC-$
 $P\cdot P^{\circ}C\acute{I}C, P_{\mu}C\ddot{H}P_{\mu}P\P PSC- P\cdot P^{\circ}C... PsPrP\ddot{e} \ddot{P}iC\ddot{H}P\ddot{e} \ddot{P}iC\ddot{H}P\ddot{e}PN_{\ddot{e}}PsPjC- PsP\gg P^{\circ}PSP\cdot P^{\circ}\ddot{P}iC-PSC\acute{r}$
 $C\ddot{H}P^{\circ}P\cdot PsPj P\cdot C-PSC\epsilon P\ddot{e}PjP\ddot{e} \ddot{P}iC\ddot{H}P_{\mu}\ddot{P}iP^{\circ}C\ddot{H}P^{\circ}C, P^{\circ}PjP\ddot{e} C\ddot{I}P_{\mu}PSC, C\ddot{H}P^{\circ}P\gg C\ddot{H}PSPsC-$
 $PrC-C-, PIPeP\gg C\ddot{H}C\ddot{P}^{\circ}C\ddot{H}C\ddot{P}e PIP\P P\ddot{e}PIP^{\circ}PSPSC\ddot{I} P^{\circ}P\gg PePsPiPsP\gg C\ddot{H}. P_{\mu}C\ddot{H}P\ddot{e}$
 $PrPsC\acute{I}P\gg C-PrP\P P_{\mu}PSPSC\ddot{I}C... in vitro P\cdot P^{\circ}PSC, P^{\circ}\ddot{P}iPsPSC-C\acute{I}C, P^{\circ}PjP\ddot{e} PrPs\ddot{P}iP^{\circ}PjC-PSC\acute{r}$
 $PIP\ddot{e}C\ddot{I}PIP\gg P_{\mu}PSPs, C\%Ps PsP\gg P^{\circ}PSP\cdot P^{\circ}\ddot{P}iC-PS PjPsP\P P_{\mu} P^{\circ}PSC, P^{\circ}\ddot{P}iPsPSC-C\acute{I}C, P\ddot{e}C\ddot{P}SPs$
 $PIP\ddot{I}P\gg P\ddot{e}PIP^{\circ}C, P\ddot{e} PSP^{\circ} P_{\mu}C,, P_{\mu}PeC, P\ddot{e} \ddot{P}iC\ddot{H}C\ddot{I}PjP\ddot{e}C... C, P^{\circ} PSP_{\mu}\ddot{P}iC\ddot{H}C\ddot{I}PjP\ddot{e}C...$
 $P^{\circ}\ddot{P}iPsPSC-C\acute{I}C, C-PI PrPs\ddot{P}iP^{\circ}PjC-PSC\acute{r}.$

$P\acute{K}P^{\circ}\ddot{P}iP^{\circ}PrP\ddot{e} C\acute{I}C\acute{e}PrPsPj$

$PhP\gg P^{\circ}PSP\cdot P^{\circ}\ddot{P}iC-PS PSP_{\mu}PsP\pm C... C-PrPSPs PsP\pm P_{\mu}C\ddot{H}P_{\mu}P\P PSPs P\cdot P^{\circ}C\acute{I}C, PsC\acute{I}PsPIC\acute{r}PIP^{\circ}C, P\ddot{e}$
 $\ddot{P}iP^{\circ}C\ddot{I}C-C''PSC, P^{\circ}Pj P\cdot P_{\mu}\ddot{P}iC-P\gg P_{\mu}\ddot{P}iC, P\ddot{e}C\ddot{P}PSP\ddot{e}PjP\ddot{e} PSP^{\circ}\ddot{P}iP^{\circ}PrP^{\circ}PjP\ddot{e} PI P^{\circ}PSP^{\circ}PjPSP_{\mu}P\cdot C-$
 $P^{\circ}P\pm Ps P\cdot C,, P^{\circ}PeC, PsC\ddot{H}P^{\circ}PjP\ddot{e}, C\%Ps P\cdot PSP\ddot{e}P\P C\acute{r}C\ddot{H}C, C\ddot{H} C\acute{I}C\acute{r}PrPsPjPSP\ddot{e}PN_{\ddot{e}}$
 $\ddot{P}iPsC\ddot{H}C-Pi. P\acute{K}P_{\mu}C\ddot{P}^{\circ}C\acute{I}C, Ps \ddot{P}iPsPIC-PrPsPjP\gg C\ddot{I}P\gg PsC\acute{I}C\ddot{I} \ddot{P}iC\ddot{H}Ps PIP\ddot{e}P\ddot{I}P^{\circ}PrPeP\ddot{e}$
 $P_{\mu}\ddot{P}iC-P\gg P_{\mu}\ddot{P}iC, P\ddot{e}C\ddot{P}PSP\ddot{e}C... PSP^{\circ}\ddot{P}iP^{\circ}PrC-PI \ddot{P}iC\ddot{H}P\ddot{e} P\gg C-PeC\acute{r}PIP^{\circ}PSPSC-$
 $PsP\gg P^{\circ}PSP\cdot P^{\circ}\ddot{P}iC-PSPsPj. Pj P\pm C-P\gg C\ddot{H}C\epsilon PsC\acute{I}C, C- C\ddot{I}P\ddot{e}C... PIP\ddot{e}P\ddot{I}P^{\circ}PrPeC-PI$
 $\ddot{P}iP^{\circ}C\ddot{I}C-C''PSC, P\ddot{e} PjP^{\circ}P\gg P\ddot{e} PI P^{\circ}PSP^{\circ}PjPSP_{\mu}P\cdot C- P_{\mu}\ddot{P}iC-P\gg P_{\mu}\ddot{P}iC, P\ddot{e}C\ddot{P}PSC- PSP^{\circ}\ddot{P}iP^{\circ}PrP\ddot{e}$
 $P^{\circ}P\pm Ps C\ddot{H}P\ddot{e}P\cdot P\ddot{e}Pe C-C... PIP\ddot{e}PSP\ddot{e}PePSP_{\mu}PSPSC\ddot{I} P\pm C\acute{r}PI \ddot{P}iC-PrPIP\ddot{e}C\%P_{\mu}PSP\ddot{e}PN_{\ddot{e}}.$

$P_{\mu}C-P\cdot PSC\ddot{I} PrP\ddot{e}C\acute{I}PeC-PSP_{\mu}P\cdot C-C\ddot{I}$

$Pj \ddot{P}iC\ddot{H}PsC\ddot{I}P_{\mu}C\acute{I}C- \ddot{P}iPsC\ddot{H}C-PIPSC\ddot{I}P\gg C\ddot{H}PSP\ddot{e}C... PeP\gg C-PSC-C\ddot{P}PSP\ddot{e}C...$
 $PrPsC\acute{I}P\gg C-PrP\P P_{\mu}PSC\ddot{H} C, C\ddot{H}P\ddot{e}PIP^{\circ}P\gg C-C\acute{I}C, C\ddot{H} 1 C\ddot{H}C-Pe P^{\circ}P\pm Ps PjP_{\mu}PSC\epsilon P_{\mu} \ddot{P}iC\ddot{H}P\ddot{e}$
 $\ddot{P}iC\ddot{H}P\ddot{e}PN_{\ddot{e}}PsPjC- PsP\gg P^{\circ}PSP\cdot P^{\circ}\ddot{P}iC-PSC\acute{r} C\acute{I}\ddot{P}iPsC\acute{I}C, P_{\mu}C\ddot{H}C-PiP^{\circ}P\gg P^{\circ}C\acute{I}C\ddot{I}$
 $C\acute{I}C, P^{\circ}C, P\ddot{e}C\acute{I}C, P\ddot{e}C\ddot{P}SPs P\cdot PSP^{\circ}C\ddot{I}C\%Ps PSP\ddot{e}P\P C\ddot{P}^{\circ} C\ddot{P}^{\circ}C\acute{I}C, PsC, P^{\circ}$
 $PIP\ddot{e}PSP\ddot{e}PePSP_{\mu}PSPSC\ddot{I} PrP\ddot{e}C\acute{I}PeC-PSP_{\mu}P\cdot C-C-, C\acute{I}\ddot{P}iC\ddot{H}P\ddot{e}C\ddot{P}ePSP_{\mu}PSPsC-$
 $P\gg C-PeC\acute{r}PIP^{\circ}PSPSC\ddot{I}Pj. P\ddot{S}P_{\mu}C\ddot{H}P_{\mu}P\cdot P\cdot C\ddot{H}PsC\acute{I}C, P^{\circ}C\ddot{H}C\ddot{P}ePN_{\ddot{e}} C\ddot{H}P\ddot{e}P\cdot P\ddot{e}Pe$
 $C\ddot{H}PsP\cdot PIP\ddot{e}C, PeC\acute{r} \ddot{P}iC-P\cdot PSC\ddot{H}PsC- PrP\ddot{e}C\acute{I}PeC-PSP_{\mu}P\cdot C-C- \ddot{P}iC\ddot{H}P\ddot{e}$
 $C, C\ddot{H}P\ddot{e}PIP^{\circ}P\gg PsPjC\acute{r} \ddot{P}iC\ddot{H}P\ddot{e}PN_{\ddot{e}}PsPjC- P^{\circ}PSC, P\ddot{e}\ddot{P}iC\acute{I}P\ddot{e}C... PsC, P\ddot{e}C\ddot{P}PSP\ddot{e}C...$
 $\ddot{P}iC\ddot{H}P_{\mu}\ddot{P}iP^{\circ}C\ddot{H}P^{\circ}C, C-PI PSP_{\mu}PsP\pm C... C-PrPSP_{\mu} C\acute{r}P\cdot \ddot{P}iPsPrP\P P_{\mu}PSP_{\mu} P\cdot PSP\ddot{e}P\P P_{\mu}PSPSC\ddot{I}$

PrPsP·Pë P°P±Ps PïPsPIPSP° PIC-PrPjC-PSP° PïCḡPμPïP°CḡP°C,Cr PïCḡPë PïPsCḡPIC- Cr
PïP°C†C-C°PSC,P° PsP·PSP°Pe C‡Pë CḡPëPjPïC,PsPjC-PI PïC-P·PSCḡPsC—
PrPëCḡPëC-PSPμP·C-C—. P— C‡P°CḡPsPj C†C- CḡPëPjPïC,PsPjPë PjPsPḡCḡC,CH
PïPsPïC-CḡC€CḡPIP°C,PëCḡCḡ P°P±Ps PSP°PIC-C,CH P·Bḡ™ CḡPIP»CḡC,PëCḡCḡ
PïC-CḡP»Cḡ PïCḡPëPïPëPSPμPSPSCḡ P»C-PeCḡPIP°PSPSCḡ.

PhCḡC,PsCḡC,P°C,PëC‡PSP° PïC-PïPsC,PμPSP·C-Cḡ

PḡPμC‡P°CḡC,Ps PïPsPIC-PrPsPjP»CḡP»PsCḡCḡ PïCḡPs PIPëPïP°PrPePë
PsCḡC,PsCḡC,P°C,PëC‡PSPsC— PïC-PïPsC,PμPSP·C-C— Cr PïP°C†C-C°PSC,C-PI
P»C-C,PSCḡPsPïPs PIC-PeCḡ PI PïCḡPsC†PμCḡC- PeP»C-PSC-C‡PSPëC...
PrPsCḡP»C-PrPḡPμPSCḡ. PμC-Pr C‡P°Cḡ P·P°CḡC,PsCḡCḡPIP°PSPSCḡ PsP»P°PSP·P°PïC-PSCḡ
CḡPμPePsPjPμPSPPrCḡC,CḡCḡCḡ PïPμCḡC-PsPrPëC‡PSPμ PIPëPjC-CḡCḡPIP°PSPSCḡ
P°CḡC,PμCḡC-P°P»CḡPSPsPïPs C,PëCḡPëCḡ PïP°C†C-C°PSC,P°Pj PIC-PePsPj PIC-Pr 65
CḡPsPeC-PI.

P P°PïC,PsPIP° CḡPμCḡC†PμPIP° CḡPjPμCḡC,CH

Pj PïPsCḡC,PjP°CḡPePμC,PëPSPiPsPIPëC... P·PIC-C,P°C... PïPsPIC-PrPsPjP»CḡP»PsCḡCḡ
PïCḡPs PIPëPïP°PrPePë CḡP°PïC,PsPIPSC— CḡPμCḡC†PμPIPSC— CḡPjPμCḡC,C-
PïP°C†C-C°PSC,C-PI, CḡPeC- PïCḡPëPNḡPjP°P»Pë PsP»P°PSP·P°PïC-PS.
P'C-PrPïPsPIC-PrPSPs PrPs CḡPμC,CḡPsCḡPïPμPeC,PëPIPSPsPïPs
PsP±CḡPμCḡPIP°C†C-PNḡPSPsPïPs PePsPïPsCḡC,PSPsPïPs PrPsCḡP»C-PrPḡPμPSPSCḡ
CḡPëP·PëPe CḡP°PïC,PsPIPSC— CḡPμCḡC†PμPIPSC— CḡPjPμCḡC,C- Cr
PïP°C†C-C°PSC,C-PI, CḡPeC- P·P°CḡC,PsCḡPsPICḡPIP°P»Pë PsP»P°PSP·P°PïC-PS,
PïC-PrPIPëC%ḡCḡPIP°PICḡCḡ PjP°PNḡPḡPμ PIPrPIC-C‡C- PïPsCḡC-PIPSCḡPSPs P·
PïP°C†C-C°PSC,P°PjPë, CḡPeC- PSPμ P·P°CḡC,PsCḡPsPICḡPIP°P»Pë
P°PSC,PëPïCḡPëC...PsC,PëPePë. P PëP·PëPe PïCḡPë P·P°CḡC,PsCḡCḡPIP°PSPSC-
PsP»P°PSP·P°PïC-PSCḡ PIC-PrPïPsPIC-PrP°C" C,P°PePsPjCḡ PïCḡPë
P·P°CḡC,PsCḡCḡPIP°PSPSC- P°C,PëPïPsPIPëC... P°PSC,PëPïCḡPëC...PsC,PëC‡PSPëC...
P»C-PeP°CḡCḡCḡPePëC... P·P°CḡPsP±C-PI, C%ḡPs P±CḡP»Pë PIPeP»CḡC‡PμPSC- PrPs
PsP±Bḡ™ C"PrPSP°PSPsPïPs P°PSP°P»C-P·Cḡ.

P"C-C,Pë C- PïC-PrP»C-C,PePë

PhP»P°PSP·P°PïC-PS PSPμ CḡPμPePsPjPμPSPPrPsPIP°PSPëPNḡ PrP»Cḡ P»C-PeCḡPIP°PSPSCḡ
PrC-C,PμPNḡ C,P° PïC-PrP»C-C,PeC-PI. Pj PïCḡPsC†PμCḡC- PrPsCḡP»C-PrPḡPμPSPSCḡ
PïP°C†C-C°PSC,C-PI PIC-PePsPj 13-17 CḡPsPeC-PI P·P°C,,C-PeCḡPsPIP°PSPs CḡC-P·PSC-
PïPsP±C-C‡PSC- CḡPμP°PeC†C-C—: P·P±C-P»CḡC€PμPSPSCḡ PjP°CḡPë C,C-P»P°, P·PjC-PSCḡ
PjPμC,P°P±PsP»C-C‡PSPëC... PïP°CḡP°PjPμC,CḡC-PI C,P° P·P±C-P»CḡC€PμPSPSCḡ
CḡC-PIPSCḡ PïCḡPsP»P°PeC,PëPSCḡ. P PμP·CḡP»CḡC,P°C,Pë, C%ḡPs P±CḡP»Pë
PïPsPIBḡ™ CḡP·P°PSC- P· C†PëPjPë PïPsP±C-C‡PSPëPjPë PrC-CḡPjPë, PSPμ
PrPsCḡP»C-PrPḡCḡPIP°P»PëCḡCḡ C- P·P°P»PëC€P°CḡC,CḡCḡCḡ PSPμPIC-PrPsPjPëPjPë
(PrPëPI. CḡPsP·PrC-P»Pë B«P»P°CḡPjP°PePsP»PsPïC-C‡PSC- PIP»P°CḡC,PëPIPSCḡC,C-B» C,P°
B«PμPsP±C-C‡PSC- CḡPμP°PeC†C-C—B»).

PḡCḡPïP°CḡC,P°Pj

PḡPμPNḡ PïCḡPμPïP°CḡP°C, PjC-CḡC,PëC,CH PrPs 1,6 PjPi P°CḡPïP°CḡC,P°PjCḡ PI PePsPḡPSC-PNḡ
C,P°P±P»PμC,C†C-.

PhCfPpP°CfC, P°Pj C" PrP¶PµCfPµP»PsPj C,,PµPSC-P»P°P»P°PSC-PSCf. P|Pµ PjPsP¶Pµ P±CfC, Pë C€PeC-PrP»PëPIPëPj PrP»Cf P»CfPrPµPNë, CfPeC- CfC, CfP°P¶PrP°CfC, Ch PSP° C,,PµPSC-P»PePµC, PsPSCfCfC-Cf (PαP¶PJ), CfC-PrPeC-CfPSPµ PiPµPSPµC, PëC±PSPµ P·P°C...PIPScfCfPIP°PSPSCf, P|CfPë CfPePsPjCf C,,PµPSC-P»P°P»P°PSC-PS PSP°PePsPiPëC±CfC"C, ChCfCfCf, PsCfPeC-P»ChPePë PsCfPiP°PSC-P·Pj PSPµ PjPsP¶Pµ PNëPsPiPs PSP°P»PµP¶PSPëPj C±PëPSPsPj PIPëPrP°P»PëC, Pë.

PkP°C, CfC-Cf

P|PµPNë P|CfPµPiP°CfP°C, PjC-CfC, PëC, Ch PjPµPSC€Pµ 1 PjPjPsP»Ch PSP°C, CfC-Cf (23 PjPi) PSP° C, P°P±P»PµC, PeCf, C, PsP±C, Ps P|CfP°PeC, PëC±PSPs PSPµ PjC-CfC, PëC, Ch PSP°C, CfC-Cf.

P—P°CfC, PsCfC±PIP°PSPSCf C± PiPµCfC-PsPr PIP°PiC-C, PSPScfC, C- P°P±Ps PiPsPrC±PIP°PSPSCf PiCfC±PrPcf.

P'C-PrCfCfC, PSC- P°PrPµPePIP°C, PSC- C- PrPsP±CfPµ PePsPSC, CfPsP»ChPsPIP°PSC- PrPsCfP»C-PrP¶PµPSPSCf PrC-C— PsP»P°PSP·P°PiC-PSCf PSP° PIP°PiC-C, PSPëC.... PµP°C±C-C"PSC, PePë PiC-Pr C±P°Cf P»C-PeCfPIP°PSPSCf PsP»P°PSP·P°PiC-PSPsPj P|PsPIPëPSPSC- P|PsPIC-PrPsPjPëC, Pë CfP|PsPiPs P»C-PeP°CfCf P|CfPs PIP°PiC-C, PSC-CfC, Ch P°P±Ps PSP°PjC-Cf P·P°PIP°PiC-C, PSC-C, Pë. PhCfPeC-P»ChPePë C-CfPSCfCfC±PëPNë PrPsCfPIC-Pr P»C-PeCfPIP°PSPSCf PIP°PiC-C, PSPëC... PsP»P°PSP·P°PiC-PSPsPj PsP±PjPµP¶PµPSPëPNë, P»C-PeP°CfCfChPePëPNë P·P°CfC-P± Cf P|PµCfC-PsPr PIP°PiC-C, PSPScfC, C- PSPµPsP±C...C-PrPSPs P·P°CfC, PsCfPsPICfPIP°C, Pë C, C-P»ChPePë C, PsPrC-, PePsP»Pë PsC±C-PeCfPIP°PSC- CfPµP·CfP»ChC, P°C, Pë PIPëPiCfP°PIP°PsPICfCfC, Ch PjPsP¶P»PëPIPëPNë CfPëP·PëPe PrP»Cf P|P»PsPrP°.

Pj PSPsPIPsPSP°CfPsPrP¶PµPSPëC..., PjP°C, PµCfC- CfPePëC... P|CfPëPNëPjP°P»Pë P°PSC, PëPiCfPëC...PsC, PëPePë (PIPëP»CfC±P°CfC±Pë PsP»P°PSP·P°PiC-PS) P|CfPsC, CfPiPsPj III C, CfPëPjPµCfC, CfCf PIP°PiC-C, PSPScfC, C-, C-CfPSCfC" CfPëP·PëPe PIPëPSPëPePSPµPSPSCf P|PsP±C-C±PSPëC... CfPµP°PeC±C-PNë, PIPëP»CfC±P°CfC±Pë PµPeCfC, CfP°PiC-CfP°PjC-PrPSC- P|PsCfCfC€PµPSPSCf C, P°/P°P±Ps CfPëPSPrCfPsPj PIC-PrPjC-PSPë, CfPëPjPiC, PsPjPë CfPePëC... PjPsP¶CfC, Ch PiC-CfP»Cf PSP°CfPsPrP¶PµPSPSCf P·PjC-PSCfPIP°C, PëCfCf P·P° CfPëP»PsCf C, P° C, CfPëPIP°P»C-CfC, Ch. PµPsPIC-PrPsPjP»CfP»Pë P|CfPs P°P¶PëC, P°C±C-Cf, P°CfC, PµCfC-P°P»ChPSCf PiC-P|PsC, PµPSP·C-Cf, C, CfPµPjPsCf, CfPsPSP»PëPIC-CfC, Ch, CfPµCfPiC-CfP°C, PsCfPSPëPNë PrPëCfC, CfPµCf-CfPëPSPrCfPsPj P°P±Ps CfPsP·P»P°Pr C...P°CfC±CfPIP°PSPSCf. PÿPsPjCf PSPµPsP±C...C-PrPSPs CfPµC, PµP»ChPSPs PePsPSC, CfPsP»CfPIP°C, Pë CfC, P°PS PSPsPIPsPSP°CfPsPrP¶PµPSPëC....

PµCfPë PrPsCfP»C-PrP¶PµPSPSC- P·PrPsCfPsPIPëC... P¶C-PSPsPe, CfPeC- PiPsPrCfPIP°P»Pë PiCfCfPrPrCf, PsP»P°PSP·P°PiC-PS P±CfP»Ps PIPëCfPIP»PµPSPs Cf PiCfCfPrPSPsPjCf PjPsP»PsC±C-. PÿPµCfPµPrPSCf PrPsP·P° PrP»Cf PSPµPjPsPIP»CfC, Pë (PjPi/PePi) P±PµP· CfPëP·PëPeCf PrP»Cf PSCfPsPiPs PsC±C-PSCfPIP°P»P°CfCf CfPe 1,8 % PjP°C, PµCfPëPSCfChPePsC— PrPsP·Pë (PjPi/PePi). PµP°C±C-C"PSC, PeP°Pj PSPµ CfPµPePsPjPµPSPrCfC"C, ChCfCf P|PsPrCfPIP°C, Pë PSPµPjPsPIP»CfC, P|CfCfPrPrCf, CfPeC%oPs PIPsPSPë P|CfPëPNëPjP°CfC, Ch PsP»P°PSP·P°PiC-PS.

$P''PsCl'P \gg C-PrP \parallel P_{\mu}PSC\bar{H} \quad PIP\bar{P} \gg P\bar{e}PICr \quad PsP \gg P^{\circ}PSP \cdot P^{\circ}P\bar{I}C-PSCr \quad PSP^{\circ} \quad C\epsilon PIP\bar{e}PrPeC-Cl'C, CH$
 $C\bar{H}P_{\mu}P^{\circ}PeC\bar{+}C-C- \quad P\bar{I}C\bar{H}P\bar{e} \quad PeP_{\mu}C\bar{H}CrPIP^{\circ}PSPSC- \quad P^{\circ}PIC, PsC, C\bar{H}P^{\circ}PSCrP\bar{I}PsC\bar{H}C, PsPj \quad P^{\circ}P\pm Ps$
 $C\bar{H}PsP\pm PsC, C- \quad P \cdot \quad C-PSC\epsilon P\bar{e}PjP\bar{e} \quad PjP_{\mu}C...P^{\circ}PSC-P \cdot PjP^{\circ}PjP\bar{e} \quad PSP_{\mu} \quad P\bar{I}C\bar{H}PsPIPsPrP\bar{e}P \gg P\bar{e}.$
 $PhCl'PeC-P \gg CHPeP\bar{e} \quad PsP \gg P^{\circ}PSP \cdot P^{\circ}P\bar{I}C-PS \quad PjPsP \parallel P_{\mu} \quad Cl'P\bar{I}C\bar{H}P\bar{e}C\bar{+}P\bar{e}PSP\bar{e}C, P\bar{e}$
 $Cl'PsPSP \gg P\bar{e}PIC-Cl'C, CH \quad C, P^{\circ} \quad P \cdot P^{\circ}P\bar{I}P^{\circ}PjPsC\bar{H}PsC\bar{+}P_{\mu}PSPSC\bar{I}, P\bar{I}P^{\circ}C\bar{+}C-C''PSC, C-PI \quad Cl'P \gg C-Pr$
 $P\bar{I}PsP\bar{I}P_{\mu}C\bar{H}P_{\mu}PrP\bar{e}C, P\bar{e} \quad P\bar{I}C\bar{H}Ps \quad PSP_{\mu}P\pm P_{\mu}P \cdot P\bar{I}P_{\mu}PeCr, P\bar{I}PsP\bar{I}b\bar{H}^{\text{TM}} \quad C\bar{I}P \cdot P^{\circ}PSCr \quad P \cdot$
 $P_{\mu}PeCl'P\bar{I}P \gg CrP^{\circ}C, P^{\circ}C\bar{+}C-C''C\bar{H} \quad PjP_{\mu}C...P^{\circ}PSC-P \cdot PjC-PI, Cr \quad C, \cdot C\bar{+}.$
 $P^{\circ}PIC, PsC, C\bar{H}P^{\circ}PSCrP\bar{I}PsC\bar{H}C, PSP\bar{e}C... \quad P \cdot P^{\circ}Cl'PsP\bar{+}C-PI.$

PŸPİPₛCÍĆ-P± P·P°CÍĆ,PₛCÍĆ¿PIP°PSPSCII C,P° PᵣPₛP·Pë.

$$\underline{P''PsC\bar{H}PsC\bar{I}'P \gg C-}$$

$P\ddot{E}P\ddot{E}P\cdot PsC_{\text{„}}C\overline{H}P\mu PSC-C\overline{U}$. P P_uP_eP_sP_jP_uPSP_rP_sPIP°PSP° P_iP_sC‡P°C, P_eP_sPIP° P_rP_sP·P°
P_sP»P°PSP·P°P_iC-PSC_í C_íC, P°PSP_sPIP_eC, C_H 10 P_jP_i 1 C_HP°P· PSP° P_rP_sP±C_í.

$P_{\hbar}P^{\circ}PSC-P^{\circ}PeP^{\circ}P \gg CHBSC - P_{\mu}P\ddot{C} - P \cdot PsPrP\ddot{e}$. $P \ P_{\mu}PePsPjP_{\mu}PSP_rPsPIP^{\circ}PSP^{\circ} \ P\ddot{P}Sc\ddagger P^{\circ}C, PePsPIP^{\circ} \ PrPsP \cdot P^{\circ} \ PsP \gg P^{\circ}PSP \cdot P^{\circ}P\ddot{C} - PSCr \ C\ddot{U}Pe \ PjPsPSPsC, P_{\mu}C\ddot{H}P^{\circ}P\ddot{C} - C - C\ddot{r}C, P^{\circ}PSPsPIP\ddot{e}C, CHB$
 $B \ B \ B \ B \ 15 \ PjPi \ PSP^{\circ} \ PrPsP \pm Cr \ P^{\circ}P \pm Ps \ 10 \ PjPi \ PSP^{\circ} \ PrPsP \pm Cr \ P\ddot{C}C\ddot{H}P\ddot{e}$
 $PePsPjP \pm C - PSPsPIP^{\circ}PSPsPjCr \ P \gg C - PeCrPIP^{\circ}PSPSC -$.

*P*μ*C*⊔*PsC*„*C*-*P*»*P*°*PeC*,*P*ë*PeP*° *PiPs**PIC*,*PsC*⊔*PSP*ë*C*... *PSP*°*PiP*°*PrC*-*PI C*¿*PiP*°*C*†*C*-*C*''*PSC*,*C*-*PI P*·
P±*C*-*PiPsP*»*C*⊔*C*⊔*PSP*ë*PjP*ë *C*⊔*PsP*·*P*»*P*°*PrP*°*PjP*ë. *P* *P*μ*PePsPjPμPSP**PrPsPIP*°*PSP*°
PiPsC±*P*°*C*,*PePsPIP*° *PrPsP*·*P*° *C*†*C*,*P*°*PSPsPIP*ë*C*,*Ch* 10 *PjPi* *PSP*° *PrPsP*±*C*†. *P*μ*P*°*C*†*C*-*C*''*PSC*,*P*ë *P*·
P±*C*-*PiPsP*»*C*⊔*C*⊔*PSP*ë*PjP*ë *C*⊔*PsP*·*P*»*P*°*PrP*°*PjP*ë, *C*⊔*PeC*- *PsC*,*C*⊔*P*ë*PjC*†*PIP*°*P*»*P*ë
PsP»*P*°*PSP*·*P*°*PiC*-*PS PrP*»*C*⊔ *P*»*C*-*PeC*†*PIP*°*PSPSC*⊔ *PjP*°*PSC*-*P*°*PeP*°*P*»*ChPSP*ë*C*...
PμPiC-*P*·*PsPrC*-*PI*, *PiC*⊔*PsPrPsPIP*¶*C*†*C*⊔*C*,*Ch* *PsC*,*C*⊔*P*ë*PjC*†*PIP*°*C*,*P*ë *PsP*»*P*°*PSP*·*P*°*PiC*-*PS C*†
C,*PsPjC*† *P*¶ *PrPsP*·*C*†*PIP*°*PSPSC*- *C*- *PrP*»*C*⊔ *PiC*⊔*PsC*„*C*-*P*»*P*°*PeC*,*P*ë*PeP*ë *PiPsPIC*,*PsC*⊔*PSP*ë*C*...
PSP°*PiP*°*PrC*-*PI*. *P*-*P*° *C*†*PjPsPIP*ë *C*⊔*PsP*·*PIP*ë*C*,*PeC*† *PSPsPIP**PsPiPs*
PjP°*PSC*-*P*°*PeP*°*P*»*ChPSP**PsPiPs*, *PrPμPiC*⊔*PμC*†*P*ë*PIPSP**PsPiPs* *P*°*P*±*Ps P*·*PjC*-*C*€*P*°*PSP**PsPiPs*
PμPiC-*P*·*PsPrC*† *P*»*C*-*PeC*†*PIP*°*PSPSC*⊔ *PSPμPsP*±*C*...*C*-*PrPSP**Ps PiC*⊔*PsPrPsPIP*¶*C*†*PIP*°*C*,*P*ë (*C*†
C⊔*P*°*P*·*C*- *PSPμPsP*±*C*...*C*-*PrPSP**PsC*†*C*,*C*- *PsPiC*,*P*ë*PjC*-*P*·*C*†*PIP*°*PIC*€*P*ë *PrPsP*·*C*†) *C*⊔*P*°*P*·*PsPj C*-*P*·
PiC-*PrC*,*C*⊔*P*ë*PjC*†*C*⊔*C*±*PsC*⊔ *C*,*PμC*⊔*P*°*PiC*-*C*''*C*⊔ *PrP*»*C*⊔ *P*»*C*-*PeC*†*PIP*°*PSPSC*⊔
C†*P*ë*PjPiC*,*PsPjC*-*PI PiPsC*⊔*C*†*C*€*PμPSPSC*⊔ *PSP*°*C*†*C*,*C*⊔*PsC*⊔, *C*⊔*PeC*%*Ps C*'' *PeP*»*C*-*PSC*-*C*±*PSP*°
PSPμPsP±*C*...*C*-*PrPSC*-*C*†*C*,*Ch*.

$P \rightarrow C - PeC \hat{z} PIP^{\circ} PSPSC \cup C \notin P \ddot{e} P \cdot PsC,, C \tilde{H} P \mu PSC - C - , PjP^{\circ} PSC - P^{\circ} PeP^{\circ} P \gg CH \dot{H} PSP \ddot{e} C \dots P \mu P \ddot{e} C - P \cdot PsPrC - PI$
 $C, P^{\circ} P \ddot{e} PsP \ddot{e} P \mu C \tilde{H} P \mu PrP \cap P \mu PSPSC \cup C \tilde{H} P \mu C \dagger P \ddot{e} PrP \ddot{e} PIC - PI P \pm C - P \ddot{e} PsP \gg C \cup C \tilde{H} PSPsPiPs$
 $C \tilde{H} PsP \cdot P \gg P^{\circ} PrC \hat{z}. P \odot PsPrP \mu PSPSC \ddot{r} PrPsP \cdot C \ddot{r} C \ddot{r} P \gg C - Pr PIP \ddot{e} P \cdot PSP^{\circ} C \ddagger P^{\circ} C, P \ddot{e} PSP^{\circ}$
 $P \ddot{e} C - PrC \ddot{r} C, P^{\circ} PIC - PeP \gg C - PSC - C \ddagger PSPsPiPs C \ddot{r} C, P^{\circ} C, C \ddot{r} C \ddot{r} C \ddot{r} PI PrC - P^{\circ} P \ddot{e} P^{\circ} \cdot PsPSC - PIC - Pr 5 PrPs$
 $B B B B B 20 PjPi PSP^{\circ} PrPsP \pm C \ddot{r}. P - P \pm C - P \gg CH C \notin P \mu PSPSC \cup C \tilde{H} P \mu PePsPjP \mu PSPPrPsPIP^{\circ} PSPsC -$
 $P \ddot{e} PsC \ddagger P^{\circ} C, PePsPIP sC - PrPsP \cdot P \ddot{e} P \ddot{e} C \tilde{H} PsPIPsPrP \ddot{e} C, P \ddot{e} P \cdot C - PSC, P \mu C \tilde{H} PIP^{\circ} P \gg P^{\circ} PjP \ddot{e} PSP \mu$
 $PjP \mu PSC \notin P \mu 24 PiPsPrP \ddot{e} PS P \gg P \ddot{e} C \notin P \mu P \ddot{e} C - C \ddot{r} P \gg C \cup PeP \gg C - PSC - C \ddagger PSPsPiPs$
 $PsP \pm C \ddot{r} C, P \mu P \cap P \mu PSPSC \cup. PhP \gg P^{\circ} PSP \cdot P^{\circ} P \ddot{e} C - PS P \ddot{e} PsC, C \tilde{H} C - P \pm PSPs P \cdot P^{\circ} C \ddot{r} C, PsC \ddot{r} PsPIC \ddot{r} PIP^{\circ} C, P \ddot{e}$
 $PSP \mu P \cdot P^{\circ} P \gg P \mu P \cap PSPs PIC - Pr PIP \cap P \ddot{e} PIP^{\circ} PSPSC \cup C - P \cap C -, PsC \ddot{r} PeC - P \gg CH PeP \ddot{e} C - P \cap P^{\circ} PSP \mu$
 $PIP \ddot{e} P \ddot{e} PIP^{\circ} C'' PSP^{\circ} P^{\circ} P \pm C \ddot{r} PsC \tilde{H} P \pm C \dagger C - C \tilde{H} P \ddot{e} C \tilde{H} P \mu P \ddot{e} P^{\circ} C \tilde{H} P^{\circ} C, C \ddot{r}. P \mu C \tilde{H} P \ddot{e} PIC - PrPiC - PSC -$

РiСђРµРiР°СђР°С,Ср Р·Р°РiРµСђСёРµРSPSCЦ С,РµСђР°РiС-С— РiРsС,СђС-Р±РSPs
РiСђРsРiРsРrРёС,Рё РiРsСђС,СрРiРsРiРs.

РђР°Р±Р»РµС,РeСр, С%Рs РrРёСђРiРµСђРiСрС,СђСђСЦ Рi СђРsС,РsРiС-Р№
РiРsСђРsР¶РSPёРSC-, РSPµРsР±С...С-РrРSPs РiРsРjС-СђС,РёС,Рё Ср СђРsС,, РrРµ РiРsРSP°
СёРiРёРrРeРs СђРsР·РiР°РrР°С,СђСђСЦ. РђСђРeС-Р»СђРeРё С,Р°Р±Р»РµС,РeР°, С%Рs
РrРёСђРiРµСђРiСрС,СђСђСЦ Рi СђРsС,РsРiС-Р№ РiРsСђРsР¶РSPёРSC-, РeСђРёС...РeР°,
С—С— СђР»С-Рr РiСђРёРµРµРjР°С,Рё РiС-РrСђР°Р·Р РiС-СђР»СЦ РiС-РrРeСђРёС,С,СЦ
Р±Р»С-СђС,РµСђР°. РђР»СђС,РµСђРSP°С,РёРiРSPs, Р±РµР·РiРsСђРµСђРµРrРSCђРs
РiРµСђРµРr Р·Р°СђС,РsСђСрРiР°РSPSCЦРj С,Р°Р±Р»РµС,РeР° РjРsР¶Рµ Р±СрС,Рё
СђРsР·СрРёРSPµРSP° Ср РiРsРiРSC-Р№ СђРeР»СЦРSC†С- РiРsРrРё Р°Р±Рs С-РSCёРsРiРs
РSP°РiРsСђ (Р°РiРµР»СђСђРёРSPsРiРёР№ СђС-Рe, СЦР±Р»СрСрСрРёР№ СђС-Рe, РjРsР»РsРeРs
Р°Р±Рs РeР°РiР°).

РђСђРsР±Р»РёС- РiСђСрРiРё РiР°С†С-С"РSC,С-Рi

РµР°С†С-С"РSC,Рё Р»С-С,РSCђРsРiРs РiС-РeСр

РµСђРёР·РSP°СрРµРSPSCЦ РjРµРSCёРsС— РiРsСр°С,РeРsРiРsС— РrРsР·Рё (5 РjРi РSP°
РrРsР±Ср) Р·Р°Р·РiРёСр°Р№ РSPµ РiРsС,СђС-Р±РSPµ. РёРµРsР±С...С-РrРSC-СђС,Сђ
РiСђРёР·РSP°СрРµРSPSCЦ РjРµРSCёРsС— РiРsСр°С,РeРsРiРsС— РrРsР·Рё
РiРsС,СђС-Р±РSPs СђРsР·РiР»СЦРrР°С,Рё РrР»СЦ РiР°С†С-С"РSC,С-Рi РiС-РeРsРj
РiС-Рr 65 СђРsРeС-Рi РiСђРё РSP°СЦРiРSPsСђС,С- РeР»С-РSC-СрРSPёС...
РiРsРeР°Р·Р°РSCђ (РrРёРi. СђРsР·РrС-Р» Б«РђСђРsР±Р»РёРiРsСђС,С-
Р·Р°СђС,РsСђСрРiР°РSPSCЦБ»).

*РµР°С†С-С"РSC,Рё Р· РSPёСђРeРsРiРsСђ С,Р°/Р°Р±Рs РiРµСрС-РSPeРsРiРsСђ
РSPµРrРsСђС,Р°С,РSC-СђС,Сђ*

РђРµРSCёСр РiРsСр°С,РeРsРiСр РrРsР·Ср (5 РjРi РSP° РrРsР±Ср) РjРsР¶РSP°
РiСђРёР·РSP°Ср°С,Рё С,Р°РeРёРj РiР°С†С-С"РSC,Р°Рj. Рj СђР°Р·С-
РSP°СЦРiРSPsСђС,С- РiРsРjС-СђРSPsС— РiРµСрС-РSPeРsРiРsС—
РSPµРrРsСђС,Р°С,РSPsСђС,С- (С†РёСђРsР·, РeР»Р°СђРё РSPµРrРsСђС,Р°С,РSPsСђС,С-
Рђ Р°Р±Рs Р' Р·Р° СёРeР°Р»РsСђ Р§Р°РµР»Р»РrР° РµБђ™Сђ) РiРsСр°С,РeРsРiР° РrРsР·Р°
РiРsРiРёРSPSP° СђС,Р°РSPsРiРёС,Рё 5 РjРi, РiС-РrРiРёС%СрРiР°С,Рё РrРsР·Ср
РSPµРsР±С...С-РrРSPs Р· РsР±РµСђРµР¶РSC-СђС,Сђ.

РђС,Р°С,Сђ

РђРsСђРµС†С-СЦ РrРsР·Рё Р·Р°Р»РµР¶РSPs РiС-Рr СђС,Р°С,С- РiР°С†С-С"РSC,Р°
РSPµ РiРsС,СђС-Р±РSP°.

РµР°С†С-С"РSC,Рё, СЦРeС- РiР°Р»СЦС,Сђ

РµРsСр°С,РeРsРiР° РrРsР·Р° С,Р° РeРsР»РёРiР°РSPSCЦ РrРsР·Рё РSPµ РiРsРiРёРSPSC-
Р·РjС-РSCђРiР°С,РёСђСЦ СђСрС,РёРSPSPёРj СрРёРSPsРj Р·Р°Р»РµР¶РSPs РiС-Рr
РSP°СЦРiРSPsСђС,С-/РiС-РrСђСрС,РSPsСђС,С- Р·РiРёСрРeРё РrРs РiР°Р»С-РSPSCЦ.
РђРµР,Р°Р±РsР»С-Р·Рj РsР»Р°РSP·РiС-РSCр РjРsР¶Рµ Р±СрС,Рё
С-РSPrСрРeРsРiР°РSPёР№ РiР°Р»С-РSPSCЦРj С,СђС,СђРSCр.
Р РµРeРsРjРµРSPrСрС,СђСђСЦ РjРsРSC-С,РsСђРёРSPi РeР»С-РSC-СрРSPsРiРs
СђС,Р°РSCр, Ср СђР°Р·С- РSPµРsР±С...С-РrРSPsСђС,С- Бђ" СђРsР·РiР»СЦРr

$P \cdot P \pm C - P \gg CH_3C \epsilon P_{\mu}PSPSC_{\downarrow} PrPsP \cdot P \ddot{e} PsP \gg P^{\circ}PSP \cdot P^{\circ}P \ddot{C} - PSC \acute{r} (PrP \ddot{e}PI. C_{\downarrow}PsP \cdot PrC - P \gg$
 $B \ll P'P \cdot P^{\circ}C''PjPsPrC - C_{\downarrow} P \cdot C - PSC \epsilon P \ddot{e}PjP \ddot{e} P \gg C - PeP^{\circ}C_{\downarrow}C_{\downarrow}CH_3PeP \ddot{e}PjP \ddot{e} P \cdot P^{\circ}C \acute{r}PsP \pm P^{\circ}PjP \ddot{e}$
 $C, P^{\circ} C - PSC \epsilon C - PIP \ddot{e}PrP \ddot{e} PIP \cdot P^{\circ}C''PjPsPrC - PN_2B \gg). P \ddot{I}PeC \% Ps PSP^{\circ}C_{\downarrow}PIPS P \ddot{e}PN_2$
 $P \pm C - P \gg CH_3C \epsilon P_{\mu} PSC - P \parallel PsPrP \ddot{e}PS C, P^{\circ}PeC, PsC_{\downarrow}, C_{\downarrow}PeP \ddot{e}PN_2 PjPsP \parallel P_{\mu}$
 $PIP \ddot{I}P \gg P \ddot{e}PSC \acute{r}C, P \ddot{e} PSP^{\circ} C \acute{r}P \ddot{I}PsPIC - P \gg CH_3PSP_{\mu}PSPSC_{\downarrow} PjP_{\mu}C, P^{\circ}P \pm PsP \gg C - P \cdot PjC \acute{r}$
 $(P \parallel C - PSPsC \ddagger P^{\circ} C \acute{r}C, P^{\circ}C, CH_3, P \ddot{I}PsC \dots P \ddot{e}P \gg P \ddot{e}PN_2 PIC - Pe, PIC - PrC \acute{r}C \acute{r}C, PSC - C \acute{r}C, CH_3$
 $P \cdot PIP \ddot{e}C \ddagger PeP \ddot{e} PrPs P \ddot{I}P^{\circ}P \gg C - PSPSC_{\downarrow}), C \acute{r}P \gg C - Pr C_{\downarrow}PsP \cdot PiP \gg C_{\downarrow}PrP^{\circ}C, P \ddot{e} PjPsP \parallel P \gg P \ddot{e}PIP_{\mu}$
 $P \cdot PSP \ddot{e}P \parallel P_{\mu}PSPSC_{\downarrow} P \ddot{I}PsC \ddagger P^{\circ}C, PePsPIPsC - PrPsP \cdot P \ddot{e}. P_{\downarrow}C - PrPIP \ddot{e}C \% P_{\mu}PSPSC_{\downarrow}$
 $PrPsP \cdot P \ddot{e} P \ddot{I}C_{\downarrow}P \ddot{e} P \ddot{I}PsPeP^{\circ}P \cdot P^{\circ}PSPSC_{\downarrow}C \dots PrPs C \ddagger CH_3PsPiPs C \acute{r}P \gg C - Pr$
 $P \ddot{I}C_{\downarrow}PsPIPsPrP \ddot{e}C, P \ddot{e} PePsPSC \acute{r}P_{\mu}C_{\downarrow}PIP^{\circ}C, P \ddot{e}PIPSPs. Pj PIP \ddot{e}P \ddot{I}P^{\circ}PrPeP^{\circ}C \dots, PePsP \gg P \ddot{e}$
 $P \ddot{I}C - PrPIP \ddot{e}C \% P_{\mu}PSPSC_{\downarrow} PrPsP \cdot P \ddot{e} PSP^{\circ} 2,5 PjPi PIP \ddot{I}P^{\circ}P \parallel P^{\circ}C''C, CH_3C \acute{r}C_{\downarrow}$
 $PSP_{\mu}PsP \pm C \dots C - PrPSP \ddot{e}Pj, C \acute{r}P \gg C - Pr PIP \ddot{e}PePsC_{\downarrow}P \ddot{e}C \acute{r}C, PsPIC \acute{r}PIP^{\circ}C, P \ddot{e} C - PSC \epsilon C -$
 $P \gg C - PeP^{\circ}C_{\downarrow}C_{\downarrow}CH_3PeC - C, PsC_{\downarrow}PjP \ddot{e} PsP \gg P^{\circ}PSP \cdot P^{\circ}P \ddot{C} - PSC \acute{r}, C_{\downarrow}PeC -$
 $PrPsP \cdot PIPsP \gg C_{\downarrow}C_{\downarrow}CH_3 PrPsP \cdot C \acute{r}PIP^{\circ}C, P \ddot{e} 2,5 PjPi.$

P''C-C,P\ddot{e}

$P_{\downarrow}P \gg P^{\circ}PSP \cdot P^{\circ}P \ddot{C} - PS PSP_{\mu} C_{\downarrow}P_{\mu}PePsPjP_{\mu}PSP \acute{r}C \acute{r}C''C, CH_3C \acute{r}C_{\downarrow}$
 $P \cdot P^{\circ}C \acute{r}C, PsC \acute{r}PsPIC \acute{r}PIP^{\circ}C, P \ddot{e} PrC - C, C_{\downarrow}Pj PIC - PePsPj PrPs 18 C_{\downarrow}PsPeC - PI, PsC \acute{r}PeC - P \gg CH_3PeP \ddot{e}$
 $PSP_{\mu}PjP^{\circ}C'' PrPsC \acute{r}C, P^{\circ}C, PSC - C \dots PrP^{\circ}PSP \ddot{e}C \dots C \% PsPrPs P \pm P_{\mu}P \cdot P \ddot{I}P_{\mu}PeP \ddot{e} C, P^{\circ}$
 $P_{\mu}C, P_{\mu}PeC, P \ddot{e}PIPSPsC \acute{r}C, C - PN_2PsPiPs P \cdot P^{\circ}C \acute{r}C, PsC \acute{r}C \acute{r}PIP^{\circ}PSPSC_{\downarrow}.$

P_{\mu}P_{\mu}C_{\downarrow}P_{\mu}PrPsP \cdot C \acute{z}PIP^{\circ}PSPSC_{\downarrow}.

$P''C \acute{r}P \parallel P_{\mu} P \ddot{I}PsC \epsilon P \ddot{e}C_{\downarrow}P_{\mu}PSP \ddot{e}PjP \ddot{e} C \acute{r}P \ddot{e}PjP \ddot{I}C, PsPjP^{\circ}PjP \ddot{e} P \ddot{I}P_{\mu}C_{\downarrow}P_{\mu}PrPsP \cdot C \acute{r}PIP^{\circ}PSPSC_{\downarrow}$
 $(>10 \%) C'' C, P^{\circ}C \dots C - PeP^{\circ}C_{\downarrow}PrC - C_{\downarrow}, P^{\circ}P \parallel P \ddot{e}C, P^{\circ}C \ddagger C - C_{\downarrow}/P^{\circ}P \ddot{I}C_{\downarrow}P_{\mu}C \acute{r}P \ddot{e}PIPSC - C \acute{r}C, CH_3,$
 $PrP \ddot{e}P \cdot P^{\circ}C_{\downarrow}C, C_{\downarrow}C - C_{\downarrow}, C_{\downarrow}C - P \cdot PSC - P_{\mu}PeC \acute{r}C, C_{\downarrow}P^{\circ}P \ddot{I}C - C_{\downarrow}P^{\circ}PjC - PrPSC -$
 $C \acute{r}P \ddot{e}PjP \ddot{I}C, PsPjP \ddot{e} C, P^{\circ} P \cdot PSP \ddot{e}P \parallel P_{\mu}PSP \ddot{e}PN_2 C_{\downarrow}C - PIP_{\mu}PSCH_3 C \acute{r}PIC - PrPsPjPsC \acute{r}C, C -,$
 $C \% Ps PIP^{\circ}C_{\downarrow}C - C_{\downarrow}C''C, CH_3C \acute{r}C_{\downarrow} PIC - Pr C \acute{r}P_{\mu}PrP^{\circ}C \ddagger C - C - PrPs PePsPjP \ddot{e}.$

$P \ddagger PSC \epsilon P \ddot{e}PjP \ddot{e} P \cdot PSP^{\circ}C \ddagger PSP \ddot{e}PjP \ddot{e} C \acute{r}C \acute{r}PeP \gg P^{\circ}PrPSP_{\mu}PSPSC_{\downarrow}PjP \ddot{e}$
 $P \ddot{I}P_{\mu}C_{\downarrow}P_{\mu}PrPsP \cdot C \acute{r}PIP^{\circ}PSPSC_{\downarrow} C'' PrP_{\mu}P \gg C - C_{\downarrow}C - PN_2, C \acute{r}C \acute{r}PrPsPjP \ddot{e}, PePsPjP^{\circ},$
 $PjPsP \parallel P \gg P \ddot{e}PIC - C \acute{r}C, CH_3 PSP_{\mu}PN_2C_{\downarrow}PsP \gg P_{\mu}P \ddot{I}C, P \ddot{e}C \ddagger PSPsPiPs P \cdot P \gg PsC_{\downarrow}PeC - C \acute{r}PSPsPiPs$
 $C \acute{r}P \ddot{e}PSP \acute{r}C_{\downarrow}PsPjC \acute{r}, P \ddot{I}C_{\downarrow}P \ddot{e}PiPSC - C \ddagger P_{\mu}PSPSC_{\downarrow} PrP \ddot{e}C \dots P^{\circ}PSPSC_{\downarrow},$
 $P^{\circ}C \acute{r}P \ddot{I}C - C_{\downarrow}P^{\circ}C \ddagger C - C_{\downarrow}, P^{\circ}C_{\downarrow}C, P_{\mu}C_{\downarrow}C - P^{\circ}P \gg CH_3PSP^{\circ} P \ddot{I}C - P \ddot{I}P_{\mu}C_{\downarrow}C, P_{\mu}PSP \cdot C - C_{\downarrow} P^{\circ}P \pm Ps$
 $P \ddot{I}C - P \ddot{I}PsC, P_{\mu}PSP \cdot C - C_{\downarrow}, C \acute{r}P_{\mu}C_{\downarrow}C \ddagger P_{\mu}PIP^{\circ} P^{\circ}C_{\downarrow}P \ddot{e}C, PjC - C_{\downarrow} (< 2 \% PIP \ddot{e}P \ddot{I}P^{\circ}PrPeC - PI$
 $P \ddot{I}P_{\mu}C_{\downarrow}P_{\mu}PrPsP \cdot C \acute{r}PIP^{\circ}PSPSC_{\downarrow}) C, P^{\circ} PeP^{\circ}C_{\downarrow}PrC - PsP \ddot{I}C \acute{r}P \gg CH_3PjPsPSP^{\circ}P \gg CH_3PSP \ddot{e}PN_2$
 $C \epsilon PsPe. P \cdot P_{\mu}C, P^{\circ}P \gg CH_3PSC - PSP^{\circ}C \acute{r}P \gg C - PrPeP \ddot{e} PIC - PrP \cdot PSP^{\circ}C \ddagger P^{\circ}P \gg P \ddot{e}C \acute{r}C_{\downarrow} P \ddot{I}C_{\downarrow}P \ddot{e}$
 $P \ddot{I}PsC \acute{r}C, C_{\downarrow}PsPjC \acute{r} P \ddot{I}P_{\mu}C_{\downarrow}P_{\mu}PrPsP \cdot C \acute{r}PIP^{\circ}PSPSC - PSP^{\circ} C_{\downarrow}C - PIPSC - PrPs 450 PjPi,$
 $P^{\circ}P \gg P_{\mu} P \pm C \acute{r}P \gg P \ddot{e} PN_2 PIP \ddot{e}P \ddot{I}P^{\circ}PrPeP \ddot{e} PIP \ddot{e}P \parallel P \ddot{e}PIP^{\circ}PSPSC_{\downarrow} P \ddot{I}C - C \acute{r}P \gg C_{\downarrow}$
 $P \ddot{I}PsC \acute{r}C, C_{\downarrow}PsPiPs P \ddot{I}P_{\mu}C_{\downarrow}P_{\mu}PrPsP \cdot C \acute{r}PIP^{\circ}PSPSC_{\downarrow} P \ddot{I}C - C \acute{r}P \gg C_{\downarrow} P \ddot{I}C_{\downarrow}P \ddot{e}PN_2PsPjC \acute{r} B 2 Pi$
 $PsP \gg P^{\circ}PSP \cdot P^{\circ}P \ddot{C} - PSC \acute{r} P \ddot{I}P_{\mu}C_{\downarrow}PsC_{\downarrow}P^{\circ}P \gg CH_3PSPs.$

P \gg C - PeC \acute{z}PIP^{\circ}PSPSC_{\downarrow}

P— P±PsPeCf C₇P₁PiC₇PsPrCfPeC, PēPIPsPSC— C₇PēC₇C, P₁PjPē C, P° PjPsP»PSC±PSPēC... P·P°P»PSP·
P·C₇P₁PeC, PēP»CH₂PSP°
PrPēC₇C, C₇PSPeC₇C—C₇ C₇
C±PsP»PSPIC—PeC—PI, P·PSPēP₁P₁PSPSC₇
P»C—P±C—PrPs C₇ P₁C—PSPsPe C, P°
C±PsP»PSPIC—PeC—PI
P₁PjP₁PSPsC₇P₁C₇,
P·P±C—P»CH₂CēP₁PSPSC₇
PiC₇C₇PrP₁P₁Pe,
PiP°P»P°PeC, PSC₇P₁C₇ C₇
P₁C—PSPsPe,
PiC—PSP₁PePsPjP°C₇C, C—C₇/,
P·P±C—P»CH₂CēP₁PSPSC₇
PiC₇C₇PrP₁P₁Pe C₇
C±PsP»PSPIC—PeC—PI
P—P°PiP°P»CH₂PSC— C₇PsP·P»PrPē C, P° PSC₇PsP±P»PēPIPsC₇C, C— P·P°C₇C, PSC₇C₇PIP°PSPSC₇
P₁C₇C, P₁PSC—C₇,
PiC—PrPIPēC%₀₀P₁PSP°
PIC, PsPjP»C₇PIP°PSC—C₇C, CH₂,
PSP°P±C₇C₇PePē, PiC—C₇P₁PeC₇C—C₇¹⁰
P·C—P°PiPSPsC₇C, PēC±PSC— PrPsC₇P»C—PrP₁P₁PSPSC₇
P₁C—PrPIPēC%₀₀P₁PSPSC₇ C₇C—PIPSC₇ P₁C—PrPIPēC%₀₀P₁PSPSC₇ C₇C—PIPSC₇
PePsPSC₇P₁PSC, C₇P°C₇C—P°P»PeP°P»C—PS— C, PSC₇C, P°C, P°P·Pē¹⁰,
PiC—PrPIPēC%₀₀P₁PSPSC₇ C₇C—PIPSC₇
PiP°PjPjP°PiP°C₇C, P°PjC—P»·
C, C₇P°PSC₇C, P₁C₇P°P·Pē¹⁰,
PiC—PrPIPēC%₀₀P₁PSPSC₇ C₇C—PIPSC₇
C₇P₁C±PsPiPsC— PePēC₇P»PSC, Pē¹⁰

¹ P₁P»C—PSC—C±PSPs P·PSP°C±C₇C%₀₀P₁ P·P±C—P»CH₂CēP₁PSPSC₇ PjP°C₇Pē C, C—P»P°
C₇PiPsC₇C, P₁C₇C—PiP°P»PSC₇C₇ PI C₇C₇C—C... PeP°C, P₁PiPsC₇C—P₁ PiP°C₇C—C”PSC, C—PI P·P°
P±P₁P₁ (C—PSP₁P₁PeC₇ PjP°C₇Pē C, C—P»P°). P₁C—C₇P»C₇ PePsC₇PsC, PePsC±P°C₇PSPsPiPs
P»C—PeC₇PIP°PSPSC₇ (C₇P₁C₇P₁PrPSC₇ C, C₇PēPIP°P»C—C₇C, CH₂ C₇C, P°PSPsPiPēP»P° 47
PrPSC—PI) P·P±C—P»CH₂CēP₁PSPSC₇ PjP°C₇Pē C, C—P»P° PSP° ≥ 7 %
C₇PiPsC₇C, P₁C₇C—PiP°P»PSC₇C₇ PrC₇P₁ C±P°C₇C, Ps (22,2 % PiPēPiP°PrPeC—PI), PSP° ≥ 15 %
C₇PiPsC₇C, P₁C₇C—PiP°P»PSC₇C₇ C±P°C₇C, Ps (4,2 % PiPēPiP°PrPeC—PI), PSP° ≥ 25 %
C₇PiPsC₇C, P₁C₇C—PiP°P»PSC₇C₇ PSP₁C±P°C₇C, Ps (0,8 % PiPēPiP°PrPeC—PI). Pj
PiP°C₇C—C”PSC, C—PI, C₇PeC— PsC, C₇PēPjC₇PIP°P»Pē C, C₇PēPIP°P»C₇ C, P₁C₇P°PiC—C₇
(PiC₇PēPSP°P₁PjPSC— PiC₇PsC, C₇PiPsPj 48 C, PēP₁PSC—PI), P·P±C—P»CH₂CēP₁PSPSC₇ PjP°C₇Pē
C, C—P»P° PSP° ≥ 7 %, ≥ 15 %, ≥ 25 % C₇PiPsC₇C, P₁C₇C—PiP°P»PSC₇C₇ PrC₇P₁ C±P°C₇C, Ps
(C₇ 64,4 %, 31,7 %, 12,3 % PiPēPiP°PrPeC—PI PIC—PrPiPsPIC—PrPSPs).

² P₁P₁C₇P₁PrPSC— PiC—PrPIPēC%₀₀P₁PSPSC₇ C₇C—PIPSC₇ P»C—PiC—PrC—PI PSP°C, C%₀₀P₁
(P·P°PiP°P»CH₂PSPēP₁ C...PsP»P₁C₇C, P₁C₇PsP», P»P₁P₁© C— C, C₇PēPiP»C—C₇P₁C₇PēPrPē)
P±C₇P»Pē P±C—P»CH₂Cē P·PSP°C±PSC— C₇ PiP°C₇C—C”PSC, C—PI, C₇ C₇PePēC... PrPs
PiPsC±P°C, PeC₇ P»C—PeC₇PIP°PSPSC₇ PSP₁ C₇PiPsC₇C, P₁C₇C—PiP°P»PSC₇C₇
P»C—PiC—PrPSPsC— PrPēC₇C₇PiC₇P»C₇C₇C—C—.

³ P₁PiPsC₇C, P₁C₇C—PiP°P»PSC₇C₇ C₇ PiP°C₇C—C”PSC, C—PI P· PSPsC₇PjP°P»CH₂PSPēPj
PiPsC±P°C, PePsPiPēPj C₇C—PIPSP₁Pj PSP°C, C%₀₀P₁ (< 5,17 PjPjPsP»CH₂/P»), C₇PePēP₁
PiC—PrPIPēC%₀₀C₇PIP°PIC₇C₇ PrPs PiPēC₇PsPePsPiPs (≥ 6,2 PjPjPsP»CH₂/P»). P”C₇P₁P₁
C±P°C₇C, Ps PiPsPIC—PrPsPjP»C₇P»PSC₇C₇ PiC₇Ps C₇C—P·PeP₁ PiC—PrPIPēC%₀₀P₁PSPSC₇
C₇C—PIPSC₇ P·P°PiP°P»CH₂PSPsPiPs C...PsP»P₁C₇C, P₁C₇PsP»C₇ PSP°C, C%₀₀P₁ P·
PiPsC±P°C, PePsPiPsPiPs C₇C—PIPSC₇ (≥ 5,17 - < 6,2 PjPjPsP»CH₂/P») PrPs PiPēC₇PsPePsPiPs
C₇C—PIPSC₇ B B B B B B B B B B B B B B B B (≥ 6,2 PjPjPsP»CH₂/P»).

⁴ P₁PiPsC₇C, P₁C₇C—PiP°P»PSC₇C₇ C₇ PiP°C₇C—C”PSC, C—PI P· PSPsC₇PjP°P»CH₂PSPēPj
PiPsC±P°C, PePsPiPēPj C₇C—PIPSP₁Pj PSP°C, C%₀₀P₁ (< 5,56 PjPjPsP»CH₂/P»), C₇PePēP₁
PiC—PrPIPēC%₀₀C₇PIP°PIC₇C₇ PrPs PiPēC₇PsPePsPiPs (≥ 7 PjPjPsP»CH₂/P»). P”C₇P₁P₁ C±P°C₇C, Ps
PiPsPIC—PrPsPjP»C₇P»PSC₇C₇ PiC₇Ps C₇C—P·PeP₁ PiC—PrPIPēC%₀₀P₁PSPSC₇ C₇C—PIPSC₇
PiP»C₇PePsP·Pē PSP°C, C%₀₀P₁ P· PiPsC±P°C, PePsPiPsPiPs C₇C—PIPSC₇ (≥ 5,56 - < 7
PjPjPsP»CH₂/P») PrPs PiPēC₇PsPePsPiPs C₇C—PIPSC₇ (≥ 7 PjPjPsP»CH₂/P»).

⁵ P₁PiPsC₇C, P₁C₇C—PiP°P»PSC₇C₇ C₇ PiP°C₇C—C”PSC, C—PI P· PSPsC₇PjP°P»CH₂PSPēPj
PiPsC±P°C, PePsPiPēPj C₇C—PIPSP₁Pj PSP°C, C%₀₀P₁ (< 1,69 PjPjPsP»CH₂/P»), C₇PePēP₁
PiC—PrPIPēC%₀₀C₇PIP°PIC₇C₇ PrPs PiPēC₇PsPePsPiPs (≥ 2,26 PjPjPsP»CH₂/P»). P”C₇P₁P₁

C†P°C†C,Ps PīPsPIC-PrPsPjP»C‡P»PsC†C‡ PīC‡Ps C‡C-P·PePμ PīC-PrPIPëC%PμPSPSC‡ C‡C-PIPSC‡ C,C‡PëPīP»C-C†PμC‡PëPrC-PI PSP°C,C%Pμ P· PīPsC†P°C,PePsPIPSPiPs C‡C-PIPSC‡ (≥ 1,69 - < 2,26 PjPjPsP»CH/P») PrPs PIPëC†PsPePsPiPs C‡C-PIPSC‡ (≥ 2,26 PjPjPsP»CH/P»).

⁶ PμC-Pr C†P°C† PeP»C-PSC-C†PSPëC... PrPsC†P»C-PrP¶PμPSCH C†P°C†C,PsC,P° PIPëPSPëPePSPμPSPSC‡ PīP°C‡PeC-PSC†PsPSC-P·PjC† C- PrPëC†C,PsPSC-C— C† PīP°C†C-C”PSC,C-PI, C‡PeC- PsC,C‡PëPjC†PIP°P»Pë P»C-PeC†PIP°PSPSC‡ PsP»P°PSP·P°PīC-PSPsPj, P±C†P»P° PIPëC%P°, P°P»Pμ PeP»C-PSC-C†PSPs PSPμP·PSP°C†PSPs, PīPsC‡C-PIPSC‡PSPs P· PīC‡C†PīPsC‡, C%Ps PsC,C‡PëPjC†PIP°P»P° PīP»P°C†PμP±Ps. P§P°C†C,PsC,P° PIPëPSPëPePSPμPSPSC‡ PīP°C‡PeC-PSC†PsPSC-P·PjC†, P°PeP°C,PëP·C-C— C- PrPëC†C,PsPSC-C— C† PīP°C†C-C”PSC,C-PI, C‡PeC- PsC,C‡PëPjC†PIP°P»Pë P»C-PeC†PIP°PSPSC‡ PsP»P°PSP·P°PīC-PSPsPj, P±C†P»P° PSPëP¶C†P°, PSC-P¶ PīC‡Pë P·P°C†C,PsC†C†PIP°PSPSC- C,PëC,C‡PsPIP°PSPëC... PrPsP· PīP°P»PsPīPμC‡PëPrPsP»C†. P§PμC‡PμP· PIC-PrC†C†C,PSC-C†C,CH C-PSC„PsC‡PjP°C†C— PīC‡Ps PSP°C‡PIPSC-C†C,CH PI P°PSP°PjPSPμP·C- PīPsC†C,C‡PëC... P°P±Ps PīC-P·PSC-C... PμPeC†C,C‡P°PīC-C‡P°PjC-PrP°P»CHPSPëC... C‡C†C...PsPIPëC... PīPsC‡C†C€PμPSCH PSPμ PjPsP¶PSP° PIC†C,P°PSPsPIPëC,Pë, C%Ps PsP»P°PSP·P°PīC-PS PjPμPSC€Pμ C†PīC‡PëC†PëPSC‡C” PīC-P·PSC‡ PrPëC†PeC-PSPμP·C-C‡ C,P°/P°P±Ps C-PSC€C- PīC-P·PSC- PμPeC†C,C‡P°PīC-C‡P°PjC-PrP°P»CHPSC- C†PëPSP†C‡PsPjPë.

⁷ Pj PIPëPīP°PrPeC† C‡C-P·PePsPiPs PīC‡PëPīPëPSPμPSPSC‡ C,PμC‡P°PīC-C— PsP»P°PSP·P°PīC-PSPsPj PīPsPIC-PrPsPjP»C‡P»PsC†C‡ PīC‡Ps PīPsC†C,C‡C- C†PëPjPīC,PsPjPë: PīC-PrPIPëC%PμPSPμ PīPsC,PsPIPëPrC-P»PμPSPSC‡, P±PμP·C†PsPSPSC‡, C,C‡PμPjPsC‡, PIC-PrC†C†C,C,C‡ C†C,C‡P°C...C†, PSC†PrPsC,C† C- P±P»CHPIP°PSPSC‡.

⁸ Pj PīC‡PsC†PμC†C- PeP»C-PSC-C†PSPëC... PrPsC†P»C-PrP¶PμPSCH (PrPs 12 C,PëP¶PSC-PI) PIPëP·PSP°C†PμPSPs, C%Ps PePsPSC†PμPSC,C‡P°C†C-C‡ PīC‡PsP»P°PeC,PëPSC† C† PīP»P°P·PjC- PeC‡PsPIC- PīPμC‡PμPIPëC%C†PIP°P»P° PIPμC‡C...PSC-PNë P»C-PjC-C, PSPsC‡PjPë C† 30 % PīP°C†C-C”PSC,C-PI, C‡PeC- P·P°C†C,PsC†PsPIC†PIP°P»Pë PsP»P°PSP·P°PīC-PS, C,P° PI C‡PePëC... PePsPSC†PμPSC,C‡P°C†C-C‡ PīC‡PsP»P°PeC,PëPSC† PSP° PīPsC†P°C,PeC† PrPsC†P»C-PrP¶PμPSPSC‡ PIC-PrPīPsPIC-PrP°P»P° PSPsC‡PjC-. Pj P±C-P»CHC€PsC†C,C- PīP°C†C-C”PSC,C-PI C,P°PePμ PīC-PrPIPëC%PμPSPSC‡ P±C†P»Ps PīPsPjC-C‡PSPëPj C- P·P°P»PëC€P°P»PsC†C‡ PI PjPμP¶P°C... P·PSP°C†PμPSCH, C† PrPIP° C‡P°P·Pë PSPëP¶C†PëC... PIC-Pr PIPμC‡C...PSCHPsPiPs C‡C-PIPSC‡ PSPsC‡PjPë.

⁹ PμPsP±C-C†PSC- C‡PμP°PeC†C-C— PIPëP·PSP°C†PμPSPs PI C‡PμP·C†P»CHC,P°C,C- PeP»C-PSC-C†PSPëC... PrPsC†P»C-PrP¶PμPSCH PI C-PSC,PμPīC‡PsPIP°PSC-PNë P±P°P·C- PrP°PSPëC... PsP»P°PSP·P°PīC-PSC†.

¹⁰ PhC†C-PSPeP° PIPëPjC-C‡C‡PSPëC... P·PSP°C†PμPSCH PIPëP·PSP°C†PμPSP° PI C‡PμP·C†P»CHC,P°C,C- PeP»C-PSC-C†PSPëC... PrPsC†P»C-PrP¶PμPSCH PI C-PSC,PμPīC‡PsPIP°PSC-PNë P±P°P·C- PrP°PSPëC... PsP»P°PSP·P°PīC-PSC†.

¹¹ PμPsP±C-C†PSC- C‡PμP°PeC†C-C— PIPëP·PSP°C†PμPSPs P·C- C†PīPsPSC,P°PSPSPëC... PīPsC†C,PjP°C‡PePμC,PëPSPiPsPIPëC... P·PIC-C,C-PI P· PīPμC‡C-PsPrPëC†PSC-C†C,C‡, C%Ps PIC†C,P°PSPsPIP»PμPSP° PSP° PsC†PSPsPIC- C-PSC,PμPīC‡PsPIP°PSPsC— P±P°P·Pë PrP°PSPëC... PsP»P°PSP·P°PīC-PSC†.

¹² PμPsP±C-C†PSC- C‡PμP°PeC†C-C— PIPëP·PSP°C†PμPSPs P·C- C†PīPsPSC,P°PSPSPëC... PīPsC†C,PjP°C‡PePμC,PëPSPiPsPIPëC... P·PIC-C,C-PI P· PīPμC‡C-PsPrPëC†PSC-C†C,C‡, C%Ps PsC†C-PSPμPSP° P· PIPëPePsC‡PëC†C,P°PSPSC‡Pj PrPsPIC-C‡C†PsPiPs C-PSC,PμC‡PIP°P»C† PI

PIP_μCT₅C...PSC_HPsPjC_r P»C-PjC-C,C- PSPsCT₅PjPë (95 %) PSP° PsC_r°PSPsPIC-
C-PSC,P_μPiC₅PsPIP°PSPsC— P±P°P·Pë PrP°PSPëC... PsP»P°PSP·P°PiC-PSC_r.

P'PiP»PëPI PiCT₅Pë PrPsPIPiPsC,CT₅PëPIP°P»PsPjC_z P·P°C_r°C,PsC_r°C_zPIP°PSPSC- (PSP_μ
PjP_μPSC€P_μ 48 C,PëP¶PSC-PI)

P'C-PrC_r°PsC,PsPe PiP°C_r°C-C''PSC,C-PI, C_r C_μPePëC... PIC-PrP·PSP°C_r°P»PëC_r°C_μ
PiPsP±C-C_r°PSC- CT₅P_μP°PeC_r°C-C— C_r PIPëPiP»C_μPrC- PeP»C-PSC-C_r°PSPs C_r°C_r°C,C,C''PIPsPiPs
PiC-PrPIPëC%₀P_μPSPSC_μ PjP°C_r°Pë C,C-P»P°, P·PjC-PSPë CT₅C-PIPsC_μ PiP»C_HPePsP·Pë,
P·P°PiP°P»C_HPSPsPiPs C...PsP»P_μC_r°C,P_μCT₅PëPSC_r/P>P_μP_kP©/P>P_μP'P© P°P±Ps
C,CT₅PëPiP»C-C_r°P_μCT₅PëPrC-PI, PiPsC_r°C,C-PN₂PSPs P·P±C-P»C_HC€C_r°PIP°PIC_r°C_μ. PJ
PrPsCT₅PsC_r°P»PëC... PiP°C_r°C-C''PSC,C-PI, C_μPeC- P·P°PeC-PSC_r°PëP»Pë 9-12-
PjC-C_r°C_μC_r°PSPëPN₂ PeC_r°CT₅C_r°C,P_μCT₅P°PiC-C—, C,P_μPjPi PiC-PrPIPëC%₀P_μPSPSC_μ
CT₅C-PIPsC_μ PiP»C_HPePsP·Pë PI PeCT₅PsPIC- PSP°C,C%₀P_μ C_r°PiPsPIC-P»C_HPSPëPIC_r°C_μ
PiCT₅PëP±P»PëP·PSPs PiC-C_r°P»C_μ 6 PjC-C_r°C_μC_r°C-PI P»C-PeC_r°PIP°PSPSC_μ.

P_μPsP±C-C_r°PSC- CT₅P_μP°PeC_r°C-C— PI PsPeCT₅P_μPjPëC... PiPsPiC_zP»C_μC_r°C-C_μC...

PJ PiCT₅PsC_r°P_μC_r°C- PeP»C-PSC-C_r°PSPëC... PrPsC_r°P»C-PrP¶P_μPSC_H C_r°PiP°C_r°C-C''PSC,C-PI
P»C-C,PSC_HPsPiPs PIC-PeC_r°P· PrP_μPjP_μPSC_r°C-C''C_H C,P_μCT₅P°PiC-C_μ PsP»P°PSP·P°PiC-PSPsPj
P±C_r°P»P° PiPsPiB₅™ C_μP·P°PSP° P· PiC-PrPIPëC%₀P_μPSPëPj CT₅C-PIPsP_μPj
P»P_μC,P°P»C_HPSPëC... PIPëPiP°PrPeC-PI C,P° C_r°P_μCT₅P_μP±CT₅PsPIP°C_r°PeC_r°P»C_μCT₅PSPëPjPë
PiPsP±C-C_r°PSPëPjPë CT₅P_μP°PeC_r°C-C_μPjPë PiPsCT₅C-PIPsC_μPSPs P· C,P°PePëPj C_r°PiCT₅C_r°PiC-
PiP»P°C_r°P_μP±Ps. P''C_r°P¶P_μ PiPsC€PëCT₅P_μPSPëPjPë PiPsP±C-C_r°PSPëPjPë CT₅P_μP°PeC_r°C-C_μPjPë,
PiPsPiB₅™ C_μP·P°PSPëPjPë P·C- P·P°C_r°C,PsC_r°C_r°PIP°PSPSC_μPj PsP»P°PSP·P°PiC-PSC_r, C_r
PrP°PSPsC— PiCT₅C_r°PiPë PiP°C_r°C-C''PSC,C-PI P±C_r°P»Pë PiPsCT₅C_r°C€P_μPSPSC_μ C...PsPrPë C,P°
PiP°PrC-PSPSC_μ. P§P°C_r°C,Ps C_r°PiPsC_r°C,P_μCT₅C-PiP°P»P°C_r°C_μ PiPSP_μPIPsPSPSC-C_μ,
PiC-PrPIPëC%₀P_μPSPSC_μ C,P_μPjPiP_μCT₅P°C,C_r°CT₅Pë C,C-P»P°, P»P_μC,P°CT₅PiC-C_μ,
P_μCT₅PëC,P_μPjP°, P·PsCT₅PsPIC- PiP°P»C_HC_r°PëPSP°C_r°C-C— C,P° PSP_μC,CT₅PëPjP°PSPSC_μ
C_r°P_μC_r°C-.

PJ PiCT₅PsC_r°P_μC_r°C- PeP»C-PSC-C_r°PSPëC... PrPsC_r°P»C-PrP¶P_μPSC_H C_r°P_μCT₅P_μPr
PiP°C_r°C-C''PSC,C-PI C-P· PjP_μPrPëPeP°PjP_μPSC,PsP·PSPs C-PSP_rC_r°PePsPIP°PSPëPj
(P°PiPsPSC-C_r°C, PrPsPiP°PjC-PSC_r) PiC_r°PëC...PsP·PsPj, PiPsPiB₅™ C_μP·P°PSPëPj C-P·
C...PIPsCT₅PsP±PsC_H P_μP°CT₅PeC-PSC_r°PsPSP°, PiPsPiC-CT₅C€P_μPSPSC_μ
PiP°CT₅PeC-PSC_r°PsPSC-PIC_r°C_HPePsC— C_r°PëPjPiC,PsPjP°C,PëPePë C,P°
PiP°P»C_HC_r°PëPSP°C_r°C-C— PIC-PrP·PSP°C_r°P»P»PsC_r°C_μ PrC_r°P¶P_μ C_r°P°C_r°C,Ps, C_r°P°C_r°C,C-C€P_μ,
PSC-P¶ C_r°PiCT₅C_r°PiC- PiP»P°C_r°P_μP±Ps.

PJ PiCT₅PsC_r°P_μC_r°C- PsPrPSPsPiPs PeP»C-PSC-C_r°PSPsPiPs PrPsC_r°P»C-PrP¶P_μPSPSC_μ C_r°4,1 %
PiP°C_r°C-C''PSC,C-PI C-P· P±C-PiPsP»C_μCT₅PSPsC_H PjP°PSC-C''C_H PI CT₅P_μP·C_r°P»C_HC,P°C,C-
P·P°C_r°C,PsC_r°C_r°PIP°PSPSC_μ PsP»P°PSP·P°PiC-PSC_r C_r°PePsPjP±C-PSP°C_r°C-C— P·
PIP°P»C_HPiCT₅PsP°C,PsPj C_r°PiPsC_r°C,P_μCT₅C-PiP°P»P°C_r°C_μ PSP_μPN₂C,CT₅PsPiP_μPSC-C_μ;
PjPsP¶P»PëPiPsC_H PiCT₅PëC_r°PëPSPsC_H PjPsP¶P_μ P±C_r°C,Pë PiC-PrPIPëC%₀P_μPSPSC_μ
CT₅C-PIPsC_μ PIP°P»C_HPiCT₅PsP°C,C_r°C_r°PiP°P»P°PjC- PeCT₅PsPIC-. PJ CT₅P_μP·C_r°P»C_HC,P°C,C-
P·P°C_r°C,PsC_r°C_r°PIP°PSPSC_μ PsP»P°PSP·P°PiC-PSC_r P· P»C-C,C-C''Pj P°P±Ps
PIP°P»C_HPiCT₅PsP°C,PsPj C_r°≥ 10 % C_r°PiPsC_r°C,P_μCT₅C-PiP°P»PëC_r°C_μ C,CT₅P_μPjPsCT₅,
C_r°C_r°C...C-C_r°C,C_H C_r°CT₅PsC,C-, PiC-PrPIPëC%₀P_μPSPSC_μ P°PiP_μC,PëC,C_r,
P·P±C-P»C_HC€P_μPSPSC_μ PjP°C_r°Pë C,C-P»P°. PÿP°PePsP¶ PiPsPIC-PrPsPjP»C_μP»PsC_r°C_μ
PiCT₅Ps PiPsCT₅C_r°C€P_μPSPSC_μ PjPsPIP»P_μPSPSC_μ. P_μC-Pr C_r°P°C_r°C,P_μCT₅P°PiC-C—
PsP»P°PSP·P°PiC-PSPsPj C_r°PePsPjP±C-PSP°C_r°C-C— P· P»C-C,C-C''Pj P°P±Ps
PIP°P»C_HPiCT₅PsP°C,PsPj C_r°PiPsC_r°C,P_μCT₅C-PiP°P»PsC_r°C_μ P·P±C-P»C_HC€P_μPSPSC_μ PjP°C_r°Pë

C,C-P»P° ≥ 7 % P†PḥPÿ Cr 17,4 % PïP°C†C-C"PSC,C-PI PïC-Pr C‡P°C†
C-PSC,PµPSC†PëPIPSpC— C,PµCḥP°PïC-C— (PrPs 6 C,PëP¶PSC-PI). P"PsPIPiPsC,CḥPëPIP°P»Pµ
P»C-PeC†PIP°PSPSC† PsP»P°PSP·P°PïC-PSPsPj (PrPs 12 C,PëP¶PSC-PI) PrP»C†
PïPsPïPµCḥPµPrP¶PµPSPSC† CḥPµC†PëPrPëPIC-PI Cr PïP°C†C-C"PSC,C-PI C-P·
P±C-PïPsP»C†CḥPSPëPjPë CḥPsP·P»P°PrP°PjPë P±C†P»Ps PïPsPIbḥ™ C†P·P°PSPs P·
PïC-PrPIPëC%PµPSPSC†Pj PjP°C†Pë C,C-P»P°
≥ 7 % P†PḥPÿ Cr 39,9 % PïP°C†C-C"PSC,C-PI.

P"C-C,Pë

PḥP»P°PSP·P°PïC-PS PSPµ PïPsPeP°P·P°PSPëPNḡ PrP»C† P»C-PeC†PIP°PSPSC† PrC-C,PµPNḡ
C,P° PïC-PrP»C-C,PeC-PI PIC-PePsPj PrPs 18 CḥPsPeC-PI. PḥP»C-PSC-C‡PSPëC...
PrPsC†P»C-PrP¶PµPSCḥ, C†PeC- PïPsCḥC-PIPSCḥPIP°P»Pë P± P·P°C†C,Psc†C†PIP°PSPSC†
PsP»P°PSP·P°PïC-PSC† Cr PïC-PrP»C-C,PeC-PI C,P° PrPsCḥPsC†P»PëC..., PSPµ
PïCḥPsPIPsPrPëP»Pë. PḥPrPSP°Pe PrP°PSC- P· PrPsC†P»C-PrP¶PµPSCḥ P·P° C†C‡P°C†C,C-
PrC-C,PµPNḡ PïPsCḥC-PIPSCḥPIP°P»PëC†C† P· CḥPµP·C†P»CḥC,P°C,P°PjPë
PrPsC†P»C-PrP¶PµPSCḥ P·P° C†C‡P°C†C,C- PrPsCḥPsC†P»PëC....

PḡPëP¶C‡Pµ PïPsPrP°PSPs PïPsP±C-C‡PSC- CḥPµP°PeC†C-C—, C%Ps
P·C†C†C,CḥC-C‡P°P»PëC†Cḥ C‡P°C†C,C-CëPµ Cr PïC-PrP»C-C,PeC-PI (PIC-PePsPj PIC-Pr 13-17
CḥPsPeC-PI), PSC-P¶ Cr PrPsCḥPsC†P»PëC..., P°P±Ps PïPsP±C-C‡PSC- CḥPµP°PeC†C-C—,
C%Ps P±C†P»Pë PIPëC†PIP»PµPSC- C,C-P»CḥPePë PïC-Pr C‡P°C†
PePsCḥPsC,PePsC,CḥPëPIP°P»PëC... PeP»C-PSC-C‡PSPëC... PrPsC†P»C-PrP¶PµPSCḥ Cr
PïC-PrP»C-C,PeC-PI. PḥP»C-PSC-C‡PSPs P·PSP°C‡C†C%Pµ P·P±C-P»CḥCëPµPSPSC† PjP°C†Pë
C,C-P»P° (≥ 7 %) C‡P°C†C,C-CëPµ C†PïPsC†C,PµCḥC-PiP°P»PsC†Cḥ Cr PïC-PrP»C-C,PeC-PI,
PïPsCḥC-PIPSC†PSPs P· PrPsCḥPsC†P»PëPjPë. PḡC-Pr C‡P°C† PrPsPIPiPsC,CḥPëPIP°P»PsPiPs
P»C-PeC†PIP°PSPSC† (PSPµ PjPµPSCëPµ 24 C,PëP¶PSC-PI) PeP»C-PSC-C‡PSPs
P·PSP°C‡C†C%Pµ P·P±C-P»CḥCëPµPSPSC† PjP°C†Pë C,C-P»P° P±C†P»Ps PIPëC%PëPj, PSC-P¶
PïC-Pr C‡P°C† PePsCḥPsC,PePsC,CḥPëPIP°P»PsPiPs P»C-PeC†PIP°PSPSC†.

PḥP°C†C,Psc,C† PïPsP±C-C‡PSPëC... CḥPµP°PeC†C-PNḡ, P·P°P·PSP°C‡PµPSPëC... PSPëP¶C‡Pµ
P·P° P·PjPµPSCëPµPSPSC†Pj C‡P°C†C,Psc,Pë PïCḥPsC†PIC-PI, PIPëP·PSP°C‡P°CḥC,Cḥ
C,P°PePëPj C‡PëPSPsPj: PrC†P¶Pµ C‡P°C†C,Ps (≥ 1/10), C‡P°C†C,Ps (≥ 1/100 PrPs < 1/10).

P— P±PsPeC† PsP±PjC-PSC† CḥPµC‡PsPIPëPS C,P° C,CḥP°PIP»PµPSPSC† P"CrP¶Pµ C‡P°C†C,Ps: P·P±C-P»CḥCëPµPSPSC† PjP°C†Pë C,C-P»P° ¹³ , PïC-PrPIPëC%PµPSPSC† CḥC-PIPSC† C,CḥPëPiP»C-C†PµCḥPëPrC-PI ¹⁴ , PïC-PrPIPëC%PµPSPSC† P°PïPµC,PëC,C†. PḥP°C†C,Ps: PïC-PrPIPëC%PµPSPSC† CḥC-PIPSC† C...PsP»PµC†C,PµCḥPëPSC† ¹⁵ .
P— P±PsPeC† PSPµCḥPIPsPIPsC— C†PëC†C,PµPjPë P"CrP¶Pµ C‡P°C†C,Ps: C†PµPrP°C†C-C† (Cr C,PsPjCr C‡PëC†P»C- PïC-PiPµCḥC†PsPjPSC-C†, PjP»C†PIC-C†C,Cḥ, C†PsPSP»PëPIC-C†C,Cḥ).
P— P±PsPeC† CëP»C†PSPePsPIPs-PePëCëPePsPIPsPiPs C,CḥP°PeC,C† PḥP°C†C,Ps: C†C†C...C-C†C,Cḥ Cr CḥPsC,C-.
P— P±PsPeC† PiPµPïP°C,PsP±C-P»C-P°CḥPSPsC— C†PëC†C,PµPjPë P"CrP¶Pµ C‡P°C†C,Ps: PïC-PrPIPëC%PµPSPSC† CḥC-PIPSC† PïPµC‡C-PSPePsPIPëC... C,CḥP°PSC†P°PjC-PSP°P· (PḥP»PḥPÿ C,P° PḥC†PḥPÿ;

P" C-P°PiPSPsCfC,PëC±PSC- PrPsCfP»C-PrP¶PµPSPSC¶
P" CrP¶Pµ C±P°CfC,Ps: P·PSPëP¶PµPSPSC¶ C¶C-PIPSC¶ P·P°PiP°P»CHbPSPsPiPs
P±C-P»C-C¶CfP±C-PSCr, PïC-PrPIPëC%PµPSPSC¶ C¶C-PIPSC¶
PiP°PjPjP°PiP»CrC,P°PjC-P»-C,C¶P°PSCfC,,PµC¶P°P·Pë, PïC-PrPIPëC%PµPSPSC¶
C¶C-PIPSC¶ PïC¶PsP»P°PeC,PëPSCr Cr PïP»P°P·PjC- PeC¶PsPIC-¹⁶.

¹³ PµC-CfP»C¶ PePsC¶PsC,PePsC±P°CfPSPsPiPs P»C-PeCrPIP°PSPSC¶ (CfPµC¶PµPrPSC¶
C,C¶PëPIP°P»C-CfC,CH CfC,P°PSPsPIPëP»P° 22 PrPSC-) P·P±C-P»CHbC¶PµPSPSC¶ PjP°CfPë
C,C-P»P° PSP° ≥ 7% CfPïPsCfC,PµC¶C-PiP°P»PsCfC¶ PrCrP¶Pµ C±P°CfC,Ps (40,6 %
PIPëPiP°PrPeC-PI), PSP° ≥ 15 % CfPïPsCfC,PµC¶C-PiP°P»PsCfC¶ C±P°CfC,Ps (7,1 %
PIPëPiP°PrPeC-PI) C,P° PSP° B B B B B ≥ 25 % Cr 2,5 % PIPëPiP°PrPeC-PI. PµC-Pr C±P°Cf
PrPsPIPiPsC,C¶PëPIP°P»PsPiPs P»C-PeCrPIP°PSPSC¶ (PSPµ PjPµPSC¶Pµ 24 C,PëP¶PSC-PI) Cr
89,4 % PiP°C†C-C" PSC,C-PI CfPïPsCfC,PµC¶C-PiP°P»PsCfC¶ P·P±C-P»CHbC¶PµPSPSC¶
PjP°CfPë C,C-P»P° PSP° ≥ 7 %, Cr 55,3 % б¶" PSP° ≥ 15 % C,P° Cr 29,1 % б¶" PSP° ≥ 25 %.

¹⁴ P¶PiPsCfC,PµC¶C-PiP°P»PsCfC¶ Cr PïP°C†C-C" PSC,C-PI P· PSPsC¶PjP°P»CHbPSPëPj
PiPsC±P°C,PePsPIPëPj C¶C-PIPSPµPj PSP°C,C%Pµ (< 1,016 PjPjPsP»CHb/P»), C¶PePëPNë
PïC-PrPIPëC%CrPIP°PICfC¶ PrPs PIPëCfPsPePsPiPs (≥ 1,467 PjPjPsP»CHb/P»), C,P° C¶C-P·PePµ
PïC-PrPIPëC%PµPSPSC¶ C¶C-PIPSC¶ C,C¶PëPiP»C-C†PµC¶PëPrC-PI PSP°C,C%Pµ P·
PiPsC±P°C,PePsPIPsPiPs C¶C-PIPSC¶ (≥ 1,016 PrPs < 1,467 PjPjPsP»CHb/P») PrPs
PIPëCfPsPePsPiPs C¶C-PIPSC¶ (≥ 1,467 PjPjPsP»CHb/P»).

¹⁵ P¶PiPsCfC,PµC¶C-PiP°P»PsCfC¶ Cr PïP°C†C-C" PSC,C-PI P· PSPsC¶PjP°P»CHbPSPëPj
PiPsC±P°C,PePsPIPëPj C¶C-PIPSPµPj C...PsP»PµCfC,PµC¶PsP»Cr PSP°C,C%Pµ P·
PiPsC±P°C,PePsPIPsPiPs C¶C-PIPSC¶ (< 4,39 PjPjPsP»CHb/P») PrPs PIPëCfPsPePsPiPs
C¶C-PIPSC¶ (≥ 5,17 PjPjPsP»CHb/P»). P" CrP¶Pµ C±P°CfC,Ps PiPsPIC-PrPsPjP»C¶P»PsCfC¶
PïC¶Ps C¶C-P·PePµ PïC-PrPIPëC%PµPSPSC¶ C¶C-PIPSC¶ P·P°PiP°P»CHbPSPsPiPs
C...PsP»PµCfC,PµC¶PsP»Cr PSP°C,C%Pµ P· PiPsC±P°C,PePsPIPsPiPs C¶C-PIPSC¶ (≥ 4,39 PrPs <
5,17 PjPjPsP»CHb/P») PrPs PIPëCfPsPePsPiPs C¶C-PIPSC¶ (≥ 5,17 PjPjPsP»CHb/P»).

¹⁶ PJ 47,4 % PïC-PrP»C-C,PeC-PI CfPïPsCfC,PµC¶C-PiP°P»PsCfC¶ PïC-PrPIPëC%PµPSPSC¶
C¶C-PIPSC¶ PïC¶PsP»P°PeC,PëPSCr Cr PïP»P°P·PjC- PeC¶PsPIC-.

P¶PµC¶PjC-PS PïC¶PëPrP°C,PSPsCfC,C-. 2 C¶PsPePë.

PjPjPsPIPë P·P±PµC¶C-PiP°PSPSC¶. P—P±PµC¶C-PiP°C,Pë PI
PsC¶PëPiC-PSP°P»CHbPSC-PNë CrPiP°PePsPIC†C-, PïC¶Pë C,PµPjPiPµC¶P°C,CfC¶C- PSPµ
PIPëC%Pµ 25 °P¶.

P—P±PµC¶C-PiP°C,Pë Cr PSPµPrPsCfC,CfPïPSPsPjCr PrP»C¶ PrC-C,PµPNë PjC-CfC†C-.

PjPiP°PePsPIPeP°. PµPs 7 C,P°P±P»PµC,PsPe Cr P±P»C-CfC,PµC¶C-. PµPs 4
P±P»C-CfC,PµC¶Pë Cr PeP°C¶C,PsPSPSC-PNë PePsC¶PsP±C†C-.

B B B B B B B P¶P°C,PµPiPsC¶C-C¶ PIC-PrPïCfCfPeCr. P—P° C¶PµC†PµPiC,PsPj.

B B B B B B B

B B B B B B B B P'PëCḡPsP±PSPëPe.

B B B B B B B B PḡPÿ B«PḡPrP°PjPμPr PḡP°CḡPjP°B», PḡPsP»CHC%oP°.

B B B B B B B B B B B B B B B B B B B

**PḡC-CÍC†PμP·PSP°C...PsPrP¶PμPSPSCḡ PIPëCḡPsP±PSPëPeP° C,P° P°PrCḡPμCÍP°
PjC-CÍC†Cḡ PïCḡPsPIP°PrP¶PμPSPSCḡ PNḡPsPiPs PrC-CḡP»CHPSPsCÍC,C-.**

B B B B B B B B PICÍP». PḡP°CḡC€. P''P¶. PḡC-P»CÍCfPrCÍCHPePsPiPs 5, 95-200,
PḡP°P±'CḡPSC-C†Pμ, PḡPsP»CHC%oP°.