



## ARTS2272

H\Y'9i fcdYUb`K cfXž`%) \$\$!% \$\$

HYfa `H\fYY`##`&\$&\$

7ci fgY`Cj Yfj ]Yk

GHJZ'7cbHJW`8YHJ]`g

7cbj Ybcfg

B Ua Y	9a U]`	5j U]`UV]`]m	@cW]h]cb	D\cbY


7ci fgY'8YHJ]`g

7fYX]hDc]bHg`\*`

Gi a a UfmicZ`h`Y'7ci fgY

H\Y'9i fcdYUb`k cfXž%) \$\$!% \$\$`]g`Ub`]bhfCxi WcfmWci fgY`hc`YUfma cXYfb`\]ghcfm'`#iU]a g`hc`dfcj ]XY`U  
[ YbYfU`\_bck`YX[ Y`cZ9i fcdYUb`dc`]h]WgžgcW]YmžYWcbca mUbX`W`h`fY`VYtk`YYb`h`Y`F`YbU]ggUbW`UbX`h`Y  
: fYbW`F`Yj`c`i`h`cb`"K`Y`k`]`Z`c`W`g`c`b`h`Y`a`c`g`h`g`[[ b]Z]W]b]h]Y]j`Y]b]h]`U]b]X]`X]Y]j`Y`c]d]a`Y]b]h]`h`U]h]g`U]d]Y]X  
9i fcdYUb`\]ghcfmž]bWi X]b[ `h`Y`f]g]Y`c]Z]i`a`U]b]g]a`ž`f]Y`][ ]ci`g`f]Y]Z]c]fa`ž`g]h]U]h]`Z]c]fa`U]h]c]b`U]b]X`W]b]h]U]`]g]U]h]c]b]ž  
cj YfgYUg`Yi`d]U]b]g]c]b]ž[ `c]V]U`W]d]h]U`]g]a`ž`U]b]X`h`Y`Ya`Yf[ YbW`cZfYdfYgYb]h]U]h]j`Y`[`c]j`Y]f]b]a`Y]b]h]`K`Y`k`]`cc`\_`U]h

# 5ggYgga Ybh

## 5ggYgga YbhHUg\_g`

5ggYgga YbhHUg_	K Y][ \h	8i Y`8UHŸ	Gh XYbh@YUfb]b[ Ci hWta Yg`5ggYggYX
: ]Y`Xk cf_`DcfhZc`]c`	&\$!	% #/\$#&\$&\$`\$- .\$\$`DA	&ž( ž) ž* ž+
9I Ua `	( \$!	: cfa U`9I Ua `DYf]cX	%ž ž)
F YgYUfW`9ggUm	( \$!	\$* #/%#&\$%- `\$( .\$\$`DA	%ž&ž ž( ž) ž+

## 5ggYgga Ybh8YHU]`g

5ggYgga Ybh% : ]Y`Xk cf\_`DcfhZc`]c`

GHUfhXUHŸ.`

@Yb[ h. `%) \$\$`k cfXg

8YHU]`g.

Gh XYbŸg`k ]`gi Va ]hUb`]bXj ]Xi U`Z]Y`Xk cf\_`UbU`mg]g`f%) \$\$`k cfXg`VUgYX`cb`U`dfY`ja ]bUfm[ fci d`k cf\_`"

; fci d`fYgYUfW. ) | `fgh XYbŸg[ ]YhŸY`gUa Y`a Uf\_`t/`bXj ]Xi U`UbU`mg]g. %) |

: YYXVUW\_`dfcj ]YX`j ]U`]bXj ]Xi U`Wta a YbŸg`UbX`WUgg`X]gW`gg]cb"

## 5XX]h]cbU`XYHU]`g.

bXj ]Xi U`DcfhZc`]c` ]g`Xi Y`cb`% #/\$#&\$&\$ž- "\$\$`d`a "

; fci d`dfYgYbhU]cb`fgh]WmicZHYb`a ]bi hYg`Xi fU]cbE`]g`Xi Y`cb`%( #/\$#&\$&\$`Xi f]b[ `h`hf]U`h]a Y`Y]hYf`  
XY`j YfYX`]b`Ub`cb`]bY`gYgg]cb`fHI H#%`E`cf`ZUW`hc`ZUW`fHI H#&`/`HI H#`E`

8YdYbX]b[ `i dcb`hY`7CJ`-8!%`g]h U]cbž`UbX`hY`h]a YhUV`YX`XY`j YfmcZhi`hf]U`gYgg]cbgž`hY`Z]Y`Xk cf\_`  
Wta dcbYbhk ]`hU`Y`d`UW`]b`mci f`U`c`WU]YX`[ fci dg`Y]hYf`]b`dYfgcb`UhŸY`5fhi; U`YfmcZB`GK ž`5fhi; U`Yfm`  
F`Xž`GmXbYmB`GK `&\$\$\$`cf`j ]U`U`j ]fhi U`j ]g]hrc`]hg`Wc`YVW]cb`ci gYX`cb`]hg`k YVg]hY`  
YfY`[\htdg.#k k k "Uff U`Yfm\]bgk "\[cj "Ui #](#)

h]g`YI dYWYX`hUh[ fci d`Wc`UVcfU]cb`cb`h]g`Z]Y`Xk cf\_`UggYgga Ybhk ]`Wta a YbW`VmiK`YY\_`" `k ]h`Vch`  
hY`]bXj ]Xi U`UbX`[ fci d`k cf\_`hc`VY`UW]Yj YX`UbX`gi Va ]hYX`VmiK`YY\_`)"

Gi Va ]gg]cb`bc`hYg. bXj ]Xi U`dcfhZc`]cg`a i ghVY`gi Va ]hYX`Ug`K`cfX`XcW`a YbŸg`j ]U`Hi`fb]h]b"; fci d`  
gi Va ]gg]cbg`g`ci `X`]bWi`XY`U`Dck`YfDc]bhdYgYbhU]cb"

Hi`fb]h]b`gYh]b[ .`h\]g`Ugg][`ba`Ybh]g`gi Va ]hYX`h`fci [ \`Hi`fb]h]b`UbX`gh`XYbŸg`Xc`bchgY`Y`Hi`fb]h]b`  
g]a ]Uf]mifYdcfŸg"

## 5ggYgga Ybh&`9I Ua

GhfhXUf.

5 hYbXUbW F Yei ]fYa Ybhg








F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

H\Y`Wti fgY`hYI hVcc\_ž6YUh? Øa ]b`fYX"ŁFZW7gcbWŠ` I adVt #' " " Ž#\*" ", 3` ;` fcbVgUf[a` fa 7SdK  
? aVWd` : [efadkž` fX`9X"ž@cbXcb/` BYk`McF\_` F ci hYX[ Y`&\$% ž`]g`Uj U]UVY`hc`gh XYbHg`]b`Y!Vcc\_`Zcfa Uh

Gi Va ]gg]cb`cZ5ggYgga YbhiHUg\_g

Hi fb]h]b`Gi Va ]gg]cb

≠mci`YbWci bHYf`U`dfcV`Ya`k` \Yb`UH`Ya` dh]b[`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybhi`h`fci`[`\`Hi`fb]h]b`z`d`Y`Ug`Y`  
HY`Yd`cb`Y`9I`HY`fb`U`Gi`ddc`fh`cb`-`,`,)``''`%`cf`Ya`U]`h`Ya`i`cb`YI`HY`fb`U`HY`hgi`ddc`fh`4`i`bgk`"YXi`"Ui`""`Gi`ddc`fh`  
`l`ci`fg`UfY`,`.\$\$Ua`-`-%\$.\$\$da`i`cb`k`YY`XUmg`U`bX`-`.\$\$Ua`-`).\$\$da`i`cb`k`YY`YbXg`f`l`\*)`XUmg`U`m`Y`Uf`l`"≠mci`  
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybhi`Xi`Y`hc`U`Z`Ji`h`k`]h`Hi`fb]h]b`mci`i`a`Um`Udd`m`Z`f`U`b`YI`HY`bg]cb`z`Vi`hmc`i`  
a`i`gh`f`Y`h]b`mci`f`h]W`Y`hbi`a`VY`f`Z`ca`9I`HY`fb`U`Gi`ddc`fh`f`U`cb[`k`]h`U`b`m`c`h`Y`f`f`Y`Y`U`b`h`X`c`W`a`Y`b`h`g`k`h`c`  
]b`Wi`XY`U`g`Y`j`]X`Y`b`W`hc`gi`ddc`fh`mci`f`YI`HY`bg]cb`Udd`]W`h]cb`"≠mci`Ya`U]`9I`HY`fb`U`Gi`ddc`fh`mci`k`]`  
Ui`h`ca`U`h]W`U`m`f`Y`W`]j`Y`U`h]W`Y`hbi`a`VY`f`z`Vi`h]Z`mci`HY`Yd`cb`Y`mci`k`]`b`Y`Y`X`hc`gd`Y`W`Z]W`U`m`Ug`\_`Z`f`c`b`Y`"  
Hi`fb]h]b`U`gc`d`fc`j`]X`Y`gi`d`X`U`h`Y`g`c`b`h`Y`]f`g`m`g`h`Ya`i`g`h`U`h`g`c`b`H`k`]h`Y`f`"

;`Yb`Y`f`U`m`z`Ugg`Y`gga`Yb`hi`U`g`\_`g`a`i`gh`V`Y`gi`Va`]h`Y`X`Y`Y`W`f`c`b]W`U`m`j`]U`Y`]h`Y`f`Hi`fb]h]b`c`f`U`A`cc`X`Y`  
Ugg][`ba`Yb`h`i`h`]b`g`h`U`b`W`g`k` \Y`f`Y`h`l`g`]g`b`c`h`d`c`g`g]V`Y`z`]h`k`]`V`Y`g`h`U`h`X`c`b`mci`f`W`ci`fg`Y`g`A`cc`X`Y`g`]h`k`]h`  
U`h`Y`fb`U`h]`Y`gi`Va`]gg]cb`X`Y`h]g`"

:`c`f`]b`Z`c`fa`U`h]c`b`c`b`l`c`k`hc`gi`Va`]h]Ugg][`ba`Yb`h]c`b`]b`Y`j`]U`A`cc`X`Y`.`h`h`d`g`#`g`h`X`Y`b`h`i`bgk`"YXi`"Ui`#`c`k`!  
gi`Va`]h]Ugg][`ba`Yb`h`a`cc`X`Y`"

## 5 WUXYa ]W< cbYgmiUbX`D`U[ ]Uf]ga

D`U[ ]Uf]ga `]g`i`g]b[ `h`Y`k`c`f`X`g`c`f`]X`Y`U`g`c`Z`c`h`Y`f`g`i`U`b`X`d`f`Y`g`Y`b`h]b[ `h`Y`a` `U`g`m`c`i`f`c`k`b`" `#`W`U`b`h`U`\_`Y`a` `U`b`m`  
Z`c`f`a`g`Z`Z`c`a` `X`Y`]V`Y`f`U`h`Y` `W`X`Y`U`h]b[ `h`c` `U`W`W`Y`X`Y`b`h`U` `m`i`W`c`d`m]b[ `Z`c`a` `U`g`c`i`f`W` `k` ]h`c`i`h`U`W`\_`b`c`k` `Y`X[ `Y`a` `Y`b`h`

I`B`G`K` `[`f`c`i`d`g`d`U[ ]Uf]ga `]b`h`c` `h`Y` `Z`c` `c`k` ]b[ `W`U`h`Y`[ `c`f`]Y`g.

- i bXYfghUbx'mci f'f][ \hg'UbX'fYgdcbg]V]h]Yg'Ug'U'gh XYbhUhl BGK
- VY'Uk UfY'cZd'U[ ]Uf]ga ž'Wc'dmf][ \hž' BGK 'Gh XYbh7cXY'cZ7cbXi W'Ubx'5W'W'dhUV'Y'I gY'cZ I BGK '⇒H'F'Ygci f'W'g'Dc`]W'h
- VY'Uk UfY'cZ'Y'ghUbxUfXg'cZVY\Uj ]ci f'YI dY'W'X'cZYj Yfmcby`]b'h'Y'I BGK 'W'a a i b]m
- `cW'W'h'gYfj ]W'g'UbX' ]bZ'fa U]cb'UVci hl BGK 'UbX'I BGK '@]VfUfm

Gca Y'cZ'Y'gY'UfY'Ug'k ]`VY'ZJa ]]Uf'hc'mci ž'c'h'Y'fg'k ]`VY'bYk " "; U]b]b[ 'U'gc`]X'i bXYfghUbx]b[ 'cZU`'h'Y fY'UH'X'UgdY'W'g'cZ9@-G9'k ]`'Y'd'mci 'a U\_Y'h'Y'a cgh'cZ'mci f'gh X]Yg'Uhl BGK ""

[\h'hd. #gj V'Y'W'f i \]X'Y'g" \]V'f'U'f'm'i b'gk "Y'X'i "U'i #'\]g'Y'#\]V'c'i h''\]g'Y](#)

# 5 WUXYa ]WbZcfa Uh]cb

: cfYggYbh]U`gh XYbh]bZcfa Uh]cb fY`Uh]b[ `rc.

- fYei Yghg`Zcf`YI H`bg]cb/
- `UhY`gi Va ]gg]cbg`[ i ]XY`]bYg/
- fYj ]Yk `cZa Uf\_g/
- I`BGK`<YU`h`UbX`GUZY`mdc`]WYg/
- YI Ua ]bUh]cb`dfcW`Xi fYg/
- gdYW]U`W`bg]XYfUh]cb`]b`hY`Yj YbhicZ]`bYgg`cf`a ]gUXj Ybh fY/
- gh XYbhYei ]mUbX`X]gUV`]m/
- UbX`c`hYf`YggYbh]U`UWUXYa ]W]bZcfa Uh]cbz`gYY

[\ftdg.#k k k "Uftg"i bgk "YXi "Ui #W ffYbhgh XYbh\]UWUXYa \]W\]bZcfa Uh\]cb#dfchW`g`\[ i \]XY`\]bYg#](#)

⇒ U[ Y`7 fYX]h

"7 cfcU`@]gU""Di V`]WXca U]b"

7F ⇒ CG

7F ⇒ CG`Dfcj ]XYf`7cXY.`\$\$\$- ;

5W\_bck`YX[ Ya YbhicZ7ci bhfm

K Y`UW\_bck`YX[ Y`hY`6YXY[ U`dYcd`Y`k`c`UfY`hY`fUX]h]cbU`W`ghcX]Ubg`cZ`hY`UbXg`cb`k` \]W`I`BGK`  
? Ybg]b[`rcb`W]a`di`g`]g`cW]hYX"