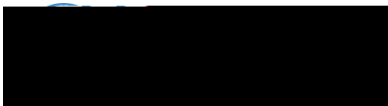


# Ligne directrice sur l'effet catalytique du PBF

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**S w)gu/eg's w)wp 'ghgv'ecvrf vks wg'RDH'A'**

Wpg'cmqecvqp'cw'vktg'f w'RDH's wg'eg'uqk'cw'pkxgcw'f w'r qt vghgwkm'qw'f w'r tqlgv'guv'eqpukf 2 t2 g" eqo o g" c { cpv'wp'ghgv'ecvrf vks wg'iqtus w)gm'et2 g'wp'2 rcp'gp'rcxgw'f g'n' rko kpcvqp'f gu'qduvcrgu" s vk'dms wgpv'n)cr r vk'«"rc'eqpuqrf cvkqp'f g'rc' r cz "«"npi "vgt o g'qw'f wcdrg"qw'f g'n)epi ci go gpv' f )cwtgu'r ct vku'r tgpvcv'f cpu'rgu"ghqtu'f g'eqpuqrf cvkqp'f g'rc' r cz "gz krcpvu'Gp"qwtg."wp" kpxgukugo gpv'f cpu'rg'RDH'guv'2 i crgo gpv'eqpukf 2 t2 "eqo o g" c { cpv'wp'ghgv'ecvrf vks wg'iqtus w)ki hcekk'g'f pqwgmgu'kpkc'vks'gu's wkr r qt vpv'f g'pqwgmgu'tguuqtegu'cw' r tkqk2 u'f g'eqpuqrf cvkqp' f g'rc' r cz 'f cpu'rg' r c { u'0

**Ghgv'ecvrf vks wg'f w'RDH'errtqr tkvqp'pcvqpcrg'gv'f wcdk'k2**

Uw"rc' dcug' f gu' eqpuwncvqpu' cxge" ngu' r ct vku' r tgpvcv' eqpegt2 gu." ki' gzkng" wp' rkp" gvtg" n)cr r tqr tkvqp'pcvqpcrg."rc'f wcdk'k2 "gv'rgu'ghgw'ecvrf vks wgu'0

Ki'c'2 v' "eqpuv' s wg'rgu' r tqlgw'f w'RDH'd'2 p2 hkegpv'f )wp'egt'v'f gi t2 'f )cr r tqr tkvqp'pcvqpcrg" eqo r v'v'gpw'f g'rc'pcwtg'f w'RDH'gv'f g'rc' r ct vke' cvkqp'f kt'g'v'f gu'eqpv'gr ct vku'pcvqpcrgu'f 3 u'rg" f 2 dw' f g" v'w' r tqegu'wu." s wg' eg" uqk' cw' pkxgcw' f w' r qt vghgwkm' qw' f w' r tqlgv' Egr gpf cpv." n) **errtqr tkvqp'pcvqpcrg' r qwt'ck'2 i crgo gpv' v'g't'gphqte'g'q'w'eqpuqrf 2 g'** i t-eg'«"wp'cmqecvqp' f w'RDH'F gu'gz go r ngu'eqpetgu'f g'eg't'gphqtego gpv'qw'f g'egw'eqpuqrf cvkqp' uqpv'rgu'o guwtgu'f g' uwk'k'eqpet3 v'gu'f w'i qwxgtpgo gpv'qw'n' xqnvkqp'f gu'r qrk'ks wgu'rk'2 gu'«"wp" kpxgukugo gpv'f w'RDH' gv'qw'«"n)k'2 i tvkqp'f gu'ghqtu'rcpe2 u'r ct 'rg'RDH'f cpu'rgu'dw' i gu'pcvqpcwz'0Ng't'gphqtego gpv'f g" n)cr r tqr tkvqp'pcvqpcrg'r gw'2 i crgo gpv'ug'v'cf vktg."r ct'gz go r rg."r ct'n)epi ci go gpv'f g'pqwgmgu' r ct vku' r tgpvcv'iqecrgu'cw'pkxgcw'eqo o wpcwck'g'0

F)wp'cwtg'e'1/2."ki'r gw' { "cxqk'f gu'ecu'f cpu'rgus wgu'rgu'ghgw'ecvrf vks wgu'p)ko r rks wgpv'r cu' p2 egu'ck'go gpv'wp'cr r tqr tkvqp'pcvqpcrg'r nu'v'ht'v'q'w'r nu'eqpuqrf 2 g'0Rct'gz go r rg.'hqtus w)gmgu' eqpf w'ugpv'«"n)epi ci go gpv'f g'pqwgcw' r ct vpc'k'gu'kv'gt'pcvqpcwz." { "eqo r tk'f gu'f qpcvgtu."f gu' **KK'g'v'f )cwtg.** f cpu'rgu'ghqtu'f g'eqpuqrf cvkqp'f g'rc' r cz 'f cpu'rg' r c { u'0

Gp'eg's vk'eqpegt'p'rc'f wcdk'k2 . 'ki'r gw' { 'cxqk'f gu'ecu."gp' r ct vkw'igt' hqtus wg'rgu'ghgw'ecvrf vks wgu' f w'RDH'v'w'p'p'v'cw'qwt'f g'n)epi ci go gpv'f g'pqwgmgu' r ct vku' r tgpvcv'f cpu'egt'v'k'p' r tqegu'wu'qw' f g'rc' hcekk'cvkqp'f g'pqwgcw' ghqtu'f g'eqpuqrf cvkqp'f g'rc' r cz 's wku'ceeqo r ci p'gpv'f g'pqwgcw' " hpcpego gpw." q'A' egu' ghgw' ecvrf vks wgu' r qwt'ck'gpv' 2 i crgo gpv' cuuwtg' rc' f wcdk'k2 " f g" n)kpxgukugo gpv'kpk'cn'f w'RDH'gv'f g'ugu't2 uwncu'ur 2 eh'ks wgu'0E)guv'rg'ecu."r ct'gz go r rg.'hqtus wg'rgu' ghgw'ecvrf vks wgu'f w'RDH'ko r rks wgpv'rc' r qwt'w'v'g'f g'r tqf vku'gv'f )cv'k'k2 u'ei'f u's wku'qv'2 v' hpcpe2 u'

r ct 'h)cmqecvqp'lpklcg'f wRDH'gv's wkuqpv'b ckvqpcpv'r qwtuwkku'r ct'f )cwt gu'r ctvku'r tgpccvqu'gvqw'  
cxge'f )cwt gu'uqwkqpu'hkpcpelgtu'

Gp't<sup>2</sup> uwo <sup>2</sup>. "rc"eqpegr vqp"gv"rc"o guwtg'f gu'ghgu"ecvcl( vs wgu'f w'RDH'f gxtckgpv" vtg'ghgew? gu'gp"  
eqo r r?o gpvck<sup>2</sup> " cxge" rgu" ghqtu" f g" eqpegr vqp" gv" f g" o guwtg" eqpegtpcpv" rc" f wcdk<sup>2</sup> " f g"  
nkvxgukugo gpv'f cpu'ig'RDH

**Ghgv'ecwrf vs wgu'pqp 'hpcpekt u'gv' hpcpekt u'**

Nghgv'ecwrf vs wgu'pqp RDH' r gw' 'vtg' f g' pcwtg' pqp' hpcpekt g' gvlqw' hpcpekt g' Cr t<sup>3</sup> u' cxqk' eqpuw<sup>2</sup> "rgu' r ct vku' r tgpv' gu. " { "eqo r tku' rgu' uget<sup>2</sup> vctkw' f w' RDH' "rg' r gt uqppgn' f w' RDUQ. "rgu' r ct vgpck' gu' hpcpekt u' r g' v' kpp<sup>2</sup> u. 'kic' <sup>2</sup> v' f<sup>2</sup> vto k<sup>2</sup> 's w' nghgv'ecwrf vs wgu'pqp' hpcpekt' gu' f' w' p' g' r nu' i' t' c' p' f' g' x' c' r' g' w' 'c' h' p' f' g' 'e' q' o' r' t' g' p' f' t' g' 'n' k' o' r' c' e' v' f' w' h' q' p' f' u' u' w' t' r' c' 'e' q' p' u' r' k' f' c' v' k' p' f' g' r' c' k' z' O'

î "egv<sup>2</sup> i' c' t' f' . "rgu' ghgv'ecwrf vs wgu'pqp' v' r' t' k' t' k' u' u' c' h' p' f' g' u' g' 'e' q' p' e' g' p' v' t' g' t' f' c' x' c' p' v' c' i' g' u' w' t' r' g' u' g' h' g' w' u' ecwrf vs wgu'pqp' hpcpekt u' gv' u' k' u' u' q' p' v' l' w' i' <sup>2</sup> u' r' g' t' v' k' p' g' p' u' . "rg' e' c' r' e' w' i' f' g' nghgv'ecwrf vs wgu' r' gw' 'vtg' w' k' r' o' k' i' c' <sup>2</sup> i' c' r' g' o' g' p' v' <sup>2</sup> v' "e' q' p' u' c' v' <sup>2</sup> 's' w' g' . "e' q' o' o' g' r' q' w' t' r' g' u' g' h' g' w' u' ecwrf vs wgu'pqp' hpcpekt u' . "rgu' ghgv' hpcpekt u' u' q' p' v' r' nu' i' r' g' t' v' k' p' g' p' u' c' w' p' k' x' g' c' w' f' w' p' r' c' { u' q' w' f' w' p' r' t' q' l' g' v' s' w' c' w' p' k' x' g' c' w' f' w' h' q' p' f' u' f' c' p' u' u' q' p' g' p' u' g' o' d' r' g' O' E' g' r' c' r' g' t' o' g' v' c' w' H' q' p' f' u' f' g' u' w' k' x' t' g' . " f' g' o' g' u' w' t' g' t' g' v' f' g' e' q' o' o' w' p' k' s' w' g' t' n' g' h' k' e' c' e' k' <sup>2</sup> " f' g' u' r' c' t' v' g' p' c' k' t' g' u' f' w' r' t' q' l' g' v' < " o' q' d' k' i' k' u' g' t' " r' g' u' h' q' p' f' u' r' q' w' t' " r' q' w' t' u' w' k' x' t' g' " r' g' u' v' t' c' x' c' w' z' " u' w' t' " r' g' u' r' t' k' t' k' <sup>2</sup> u' f' g' e' q' p' u' r' k' f' c' v' k' p' f' g' r' c' k' z' O' "

**Ghgv'ecwrf vs wgu'pqp 'hpcpekt' f' w' RDH' <** u' w' r' t' k' o' g' " r' g' u' q' d' u' c' e' r' g' u' c' w' f' <sup>2</sup> d' r' q' e' c' i' g' f' g' u' r' t' q' e' g' u' u' w' r' r' q' i' k' s' w' g' u' . " k' p' u' k' w' w' k' p' p' g' n' u' q' w' c' w' t' g' u' s' w' k' u' q' p' v' d' i' q' s' w' <sup>2</sup> u' r' q' w' t' o' c' k' p' v' g' p' k' t' r' c' r' c' k' z' < " f' k' i' f' t' g' p' u' p' k' x' g' c' w' z' " \* p' c' v' k' p' c' n' i' q' e' c' n' g' v' e' O' g' v' l' q' w' e' t' <sup>2</sup> g' r' g' u' e' q' p' f' k' k' q' p' u' p' <sup>2</sup> e' g' u' c' k' t' g' u' r' q' w' t' " g' p' i' c' i' g' t' f' c' w' t' g' u' r' c' t' v' k' u' r' t' g' p' c' p' v' g' u' f' c' p' u' r' g' u' g' h' q' t' u' f' g' e' q' p' u' r' k' f' c' v' k' p' f' g' r' c' k' z' " g' z' k' u' c' p' u' q' w' p' q' w' x' g' c' w' z' " f' c' p' u' w' p' e' q' p' v' z' w' g' p' c' v' k' p' c' n' i' u' r' <sup>2</sup> e' k' i' s' w' g' O' K' <sup>2</sup> c' r' g' o' g' p' v' " r' g' u' g' h' g' w' u' ecwrf vs wgu' pqp' hpcpekt u' f' w' RDH' k' o' r' r' i' s' w' g' t' c' l' e' p' v' w' p' e' j' c' p' i' g' o' g' p' v' f' c' p' u' r' c' x' q' i' p' v' <sup>2</sup> r' q' i' k' s' w' g' g' v' l' q' w' r' g' u' r' t' c' v' k' s' w' g' u' k' p' u' k' w' w' k' p' p' g' n' u' f' g' u' r' c' t' v' k' u' r' t' g' p' c' p' v' g' u' p' c' v' k' p' c' r' g' u' . " i' q' e' c' n' g' u' g' v' l' q' w' k' p' v' t' p' c' v' k' p' c' r' g' u' . " < " f' k' i' f' t' g' p' u' p' k' x' g' c' w' z' . " s' w' k' r' g' t' o' g' w' t' c' k' < " f' c' w' t' g' u' g' h' q' t' u' f' g' e' q' p' u' r' k' f' c' v' k' p' f' g' r' c' k' z' " o' f' k' i' f' t' g' p' u' o' c' k' u' e' q' o' r' r' i' f' o' g' p' v' c' k' t' g' u' < " e' g' w' z' " k' p' k' i' c' r' g' o' g' p' v' u' q' w' g' p' u' r' c' t' n' c' i' m' e' c' v' k' p' f' w' RDH' o' f' c' m' g' t' f' g' h' c' x' c' p' v' O' N' g' u' g' h' g' w' u' ecwrf vs wgu'pqp' hpcpekt u' r' q' w' t' c' l' e' p' v' <sup>2</sup> i' c' r' g' o' g' p' v' g' p' i' n' d' g' t' f' c' w' t' g' u' k' o' r' c' e' v' u' . " v' g' n' u' s' w' g' r' e' h' d' <sup>2</sup> t' c' v' k' p' f' w' p' c' r' r' t' g' p' v' k' u' c' i' g' r' n' u' i' r' t' i' g' f' c' p' u' r' g' u' g' e' v' g' w' f' g' r' c' e' q' p' u' r' k' f' c' v' k' p' f' g' r' c' k' z' \* g' p' v' t' g' i' g' u' r' c' { u' g' v' l' g' u' g' e' v' g' w' t' g' p' i' <sup>2</sup> p' <sup>2</sup> t' c' n' i' q' w' e' q' p' v' t' k' d' w' g' t' < " t' <sup>2</sup> f' w' k' t' g' q' w' < " c' w' <sup>2</sup> p' w' g' t' " r' g' u' t' k' u' s' w' g' u' r' q' w' t' r' g' u' g' h' q' t' u' f' g' e' q' p' u' r' k' f' c' v' k' p' f' g' r' c' k' z' " f' c' p' u' w' p' e' q' p' v' z' w' g' u' r' <sup>2</sup> e' k' i' s' w' g' O'

**Ghgv'ecwrf vs wgu'pqp 'hpcpekt' f' w' RDH' <** k' i' u' g' r' t' q' f' w' k' i' q' t' u' s' w' w' p' " l' p' x' g' u' k' u' g' o' g' p' v' f' w' RDH' h' c' e' k' i' k' g' f' g' p' q' w' x' g' m' g' u' k' p' k' i' c' v' k' s' w' g' u' s' w' k' r' c' r' q' t' v' g' p' v' f' g' p' q' w' x' g' m' g' u' t' g' u' u' q' w' t' e' g' u' c' w' z' r' t' k' t' k' <sup>2</sup> u' f' g' e' q' p' u' r' k' f' c' v' k' p' f' g' r' c' k' z' " f' c' p' u' r' g' " r' c' { u' . " { " e' q' o' r' t' k' u' h' p' c' p' e' k' t' g' u' . " j' w' o' c' k' p' g' u' . " k' p' u' k' w' w' k' p' p' g' n' u' g' v' c' w' t' g' u' O' K' i' r' g' w' u' c' i' k' t' " f' g' n' k' p' <sup>2</sup> i' t' c' v' k' p' f' g' u' g' h' q' t' u' f' g' e' q' p' u' r' k' f' c' v' k' p' f' g' r' c' k' z' " r' e' p' e' <sup>2</sup> u' r' c' t' r' g' RDH' f' c' p' u' r' g' u' d' w' f' i' g' u' p' c' v' k' p' c' w' z' . " c' k' p' u' k' s' w' g' f' w' u' q' w' l' g' p' h' p' c' p' e' k' t' f' g' u' f' q' p' c' v' g' w' t' u' o' w' n' k' r' v' <sup>2</sup> t' c' w' z' / " { " e' q' o' r' t' k' u' r' g' u' K' H' K' / " g' v' d' k' r' v' <sup>2</sup> t' c' w' z' . " g' v' f' w' u' g' e' v' g' w' t' r' t' k' <sup>2</sup> . " g' p' v' t' g' c' w' t' g' u' . c' w' z' g' h' q' t' u' f' g' e' q' p' u' r' k' f' c' v' k' p' f' g' r' c' k' z' " r' e' k' z' u' < " e' g' w' z' " k' p' k' i' c' r' g' o' g' p' v' u' q' w' g' p' u' r' c' t' r' g' RDH' "

Ngu' ghgv'ecwrf vs wgu' hpcpekt u' f' w' RDH' x' q' p' v' c' w' f' g' n' k' f' g' u' t' <sup>2</sup> r' i' s' w' g' u' q' w' f' g' u' x' g' t' u' k' q' p' u' < " i' t' c' p' f' g' <sup>2</sup> e' j' g' m' g' f' g' u' k' p' x' g' u' k' u' g' o' g' p' u' c' p' v' <sup>2</sup> t' k' g' w' t' u' f' w' RDH' d' k' g' p' s' w' k' i' u' c' i' k' u' g' f' g' z' g' o' r' g' u' v' <sup>3</sup> u' e' r' c' k' u' f' g' e' g' u' g' h' g' w' u' N' g' u' g' h' g' w' u' ecwrf vs wgu' hpcpekt u' r' q' w' t' c' l' e' p' v' <sup>2</sup> i' c' r' g' o' g' p' v' ' v' t' g' r' e' k' z' u' < " f' g' u' e' q' o' r' q' u' c' p' v' g' u' u' r' <sup>2</sup> e' k' i' s' w' g' u' f' w' r' t' q' l' g' v' RDH' c' w' z' " c' r' r' t' q' e' j' g' u' r' t' q' i' t' c' o' o' c' v' k' s' w' g' u' w' k' r' u' <sup>2</sup> g' u' . " c' w' z' " o' <sup>2</sup> e' c' p' l' u' o' g' u' f' g'

eqqtf kpcvqp" o ku" gp" r rceg" qw" cwz" ecr cek<sup>2</sup>u" eqpet<sup>3</sup>vgu" eqputwkgu" qw" tgpht<sup>2</sup>gu" i t-eg" <"  
nkp<sup>x</sup>gukugo gpv<sup>l</sup>pkknf w'RDH"gpvtg'cwtgu'qr vkpu0

**Gzgo r igu'lt<sup>2</sup>s wgpuf)ghgu'ecvrf vks wgu'f w'RDH**

Egtvku'f gu'ecu'igu'r nu'lt<sup>2</sup>s wgpuf)ghgu'ecvrf vks wgu'f w'RDH'eqo r tgp<sup>pp</sup>gpv<

**N)kpxgukugo gpv'f w'RDH'gu'wvku<sup>2</sup>'eqo o g'rtgwxg'fg'eqpegrv'r qwt"guac{gt'fg'pqwxgngu'  
crrtqej gu'kppqxcpgufg'ic'eqpuikf cvkqp'fg'ic'rck's wktgt o gwgpvf g't<sup>2</sup>r qpf t g'cwz'dguqkpu'gp'  
uwr gp u'gp' b cvk<sup>2</sup>t g'fg'eqpuikf cvkqp'fg'ic'rck.'gvkw's wk'rgwxgpv" utg'rtkugu'gp'ejcti g'rct"  
f)cwtgu'rtcvku'rtgpcpvgufcpu'ig'b' o g'rc{u'hw'fcpu'f)cwtgu'rc{u0Rct"gzgo r ig."wp'r tqlgvf w'  
RDH'gp"Eqmo dkg" c"uqwgpw"nkpv<sup>2</sup>i tcvkqp" f)mpg"cr r tqej g"NI DVKS - "fcpu'igu"o cpf cvu'f g'vtqku'  
kpu<sup>kw</sup>kpu" f g"lwvleg" vcpukqppgng"<sup>2</sup>vdnku'fcpu'ig"ecf t g'f g"n)Ceeqtf "f g"r ckz" f g"42380'Gp"  
eqpu<sup>2</sup>s wpeg."rc"Eqo o kuukqp" f g"rc"x<sup>2</sup>tk<sup>2</sup>" f g"Eqmo dkg" gu'f gxgpwg"rc"r tgo k<sup>3</sup>tg"cw"o qpf g"<"  
tgeqppc,vtg"ur<sup>2</sup>ekhs wgo gpv'igu'hqto gu'f kwpvku'f g"xkqngpeg"uwdku'r ct"igu'r gtuqppgu"NI DVKS - "  
r gpf cpv'ig"eqphk'cto<sup>2</sup>. 'gv'rc'Lvtkf kvkqp"ur<sup>2</sup>ekng'r qwt"rc"r ckz"gu'f gxgpwg"rc"r tgo k<sup>3</sup>tg"<"gp**

r ctvgpctlc'cxge'r nmlgwtu'ci gpegu'f gu'P cvkpu'Wpku.'f gu'cwqtk

Ngu"ghgw"ecvñ{ vks wgu" f w"RDH'f qkxgpv'´ vtg"eqpukf<sup>2</sup>t<sup>2</sup>u"eqo o g"rg" f<sup>2</sup>dw'f g"vqw'r tqeguwwu" f g" r tqi tco o cvkqp" f w"RDH'f cpu"wp" r c{ u."s wg"eg"uqk'cw'pkxgcw'f w'r qtvggwkwng" qw'f w'r tqlgw'0'Ngu" t gur qpucdkk<sup>2</sup>u"gp"o cvk<sup>2</sup>tg'f g"eqpegr vkqp."f g"uwxgkncpeg."f) xcnwcvkqp"gv'f g"eqo o wplecvkqp" f gu" ghgw"ecvñ{ vks wgu" f w"RDH'xctkgtqp'v'qw'cw'iqpi "f w'e{ erg'f g'r tqi tco o cvkqp0'

**c+ Eqpegr vkqp' f g'r qtvggwkwng' r t qlgv'gv'crr t qdc vkqp' f w'RCE"**

Cw" ucf g" f g" r" eqpegr vkqp" cw" pkxgcw' f w' r qtvggwkwng." ngu" eqpukf<sup>2</sup>tcvkqpu" tgrvkwgu" cwz" ghgw" ecvñ{ vks wgu"cwgpw' w'f w"RDH'f gxtckgpv'´ vtg"lpenwugu."uk'r quukdrg."f cpu'r" f go cpf g'f) rki kdkk<sup>2</sup>."rg" HTU'qw'igu'WP UF EH'qtus wg'egu'f gtpkgtu"eqo r tgpv'gpv'wp'r kktg'f g'eqpuqrf cvkqp' f g'rc' r ckz0F cpu" ngu'r c{ u'q'Á'k'gz kwng'f<sup>2</sup>l«'wp"uget<sup>2</sup>vctkv'f w"RDH'\*)e)guv'«/f ktg'ngu'r c{ u's wk'f go cpf gpv'wpg'pqwxgmg" <sup>2</sup>rki kdkk<sup>2</sup>+" rg" uget<sup>2</sup>vctkv' f w' RDH' ugtc" rg" r tkpek' cni' t gur qpucdrg" f g" nkpv<sup>2</sup>i tcvkqp" f g" egu" eqpukf<sup>2</sup>tcvkqpu0F cpu'ngu'r c{ u's wk'p)qpvr' cu'f g'ug<sup>2</sup>vctkv'f w"RDH'ngu'r gtuqppgu'ej cti <sup>2</sup>gu'f g'f kki gt" ngu'eqpuwncvkqpu'gv'f g'eqpuqrf gt'ngu'f qewo gpv'tgs wku."i<sup>2</sup>p<sup>2</sup>tcrgo gpv'ig'Dwtgcw'f w'Eqqtf qppcvgt" t<sup>2</sup>ukf gpv' \*DET+" ugtqpv' ej cti <sup>2</sup>gu'f kp<sup>2</sup>i tgt" ngu" eqpukf<sup>2</sup>tcvkqpu" tgrvkwgu" cwz" ghgw" ecvñ{ vks wgu" gueqo r v<sup>2</sup>u0'

î "n<sup>2</sup> vcr g'f g'rc"eqpegr vkqp" f w'r tqlgv."eqphqto <sup>2</sup>o gpv'«"rc"r tcvks wg"cewng."ngu"ghgw"ecvñ{ vks wgu" r t<sup>2</sup>xwu" f gxtckgpv'´ vtg"lpenwuf'cpu'ng'f qewo gpv'f g"r tqlgv'r ct"n)qti cpkuo g"t gur qpucdrg."gp"<sup>2</sup>vtqkg" eqpuwncvkqp" gv' gp" ceeqtf " cxge" ngu" cwtgu" TWP Q

TWP Qu'Ngu'uget<sup>2</sup> vctkw'f w'RDH'qp'v'w'p't<sup>1</sup>/<sub>2</sub>g'f g'uw'xgkmp'eg'gp'xgkmp'v'«'eg's wg'ng'uw'k'f g'egu' ghgw'uqk'ghg'v'xgo gpv'kp<sup>2</sup> i t<sup>2</sup> f'cpu'ng'tcr r qtv'f g'r tqlg'0

Gphk'."ngu'ci gpw'f g'dwtgcw'f w'DURD'cuwtgpv'rc'uw'xgkmp'eg'gp'x<sup>2</sup>tkh'cpv's wg'egwg'uw'xgkmp'eg' guv'gp'hckv'kp<sup>2</sup> i t<sup>2</sup> g'f'cpu'ngu'tcr r qtv'g'v'gp'tgeqo o cpf'cpv's w)ng'uqk'kpenwug'cmqtu's wg'eg'p'v'ck' r cu'ng'ecu'0

Cw'o qo gpv'f g'ng'p<sup>2</sup> g'gp'xki wgw'f g'egu'ri pgu'f k'gevt'egu.'cwewp'ej cpi go gpv'p)guv'tgeqo o cpf<sup>2</sup> f'cpu'ng'hqto cv'f g'f<sup>2</sup>emtcv'kp'0

*e+ T'err qtv'h'pcn'igv<sup>2</sup> xcncv'kqp'f w't qv'ghgw'ng'lt q'lgv'*

Cw'pkxgcw'f w'r qv'ghgw'ng.'hg'tcr r qtv'cppw'ng'lt'v' i ks wg'h'pcn'f gxtck'k'f<sup>2</sup> crgo gpv'kpenwt'g'wpg'ugev'kqp' uw'ngu'ghgw'ecv'cn' v'ks wgu'f w'RDH'0' 'eg'v'ktg.'f'cpu'ngu'r c { u'f'q<sup>2</sup>u'f'g'EE O 's w'k'hqpev'kpp'gpv.'k'g'uv' gpeqwt'ci<sup>2</sup> 's wg'ng'wu'o go dtgu'u)gpi ci gpv.'«'rc'h'k'p'f'g'rc'r<sup>2</sup> tkqf'g'f'v' rki kdk'k<sup>2</sup> .f'cpu'f'gu'f'kuewu'k'qpu' uw'ngu'ghgw'ecv'cn' v'ks wgu'f w'RDH'qdv'gpw'cw'pkxgcw'f w'r qv'ghgw'ng'0'F'cpu'ngu'r c { u'q'Á'w'HP FEE' kp<sup>2</sup> i t'cpv'w'p'r k'igt'f'g'eqpu'rk'f'cv'kqp'f'g'rc'r'ckz't'go r'ceg'w'p'HTU.'k'g'uv'gpeqwt'ci<sup>2</sup> 'f'g'uw' i<sup>2</sup> t'gt'rc' et<sup>2</sup> cv'kqp'f'w'p'i t'qwr'g'f'g't<sup>2</sup> uw'ncw'g'v'f'g't<sup>2</sup> uw'ncw'f'g'rc'eqpu'rk'f'cv'kqp'f'g'rc'r'ckz's w'k'r'qwt'ck'v<sup>2</sup> i crgo gpv' cxqk'f'gu'f'kuewu'k'qpu'uko k'ck'gu'cw'pkxgcw'f w'r qv'ghgw'ng'g'v'f'w'r tqlg'0'Ng'ug'et<sup>2</sup> vctkw'f w'RDH'f'cpu' ej cs wg'r c { u'ugtc'ej cti<sup>2</sup> 'f'gpeqwt'ci gt'egu'f'kuewu'k'qpu'g'v'f'g't'gpf'g'eqo r w'f'g'egu'ghgw'f'cpu'ng' tcr r qtv'UCT'h'pcn'hq'us wg'egu'kphqto cv'kqp'u'ugt'q'v'f'kur'q'pk'd'ngu'0

Cw'pkxgcw'f w'r tqlg'v'g'v'f'w'r qv'ghgw'ng.'ngu'tcr r qtv'h'kpcw'f'f'g'r' tqlg'v'f'gxtck'gpv'k'f<sup>2</sup> crgo gpv'kpenwt'g' wpg'<sup>2</sup> xcncv'kqp'f'gu'ghgw'ecv'cn' v'ks wgu'f w'RDH'k'k'k'peqo dgtck'v'«'n'qti'cp'kuo g'g'v'cwz'ug'et<sup>2</sup> vctkw' t'gur'qpuc'd'ngu'f'g'egwg'v'ej'g.'gp'<sup>2</sup> v'q'kg'eqpu'w'nc'kqp'g'v'gp'cee'qtf'cx'ge'ngu'cw'w'gu'TWP QO'Ngu' uget<sup>2</sup> vctkw'f w'RDH'qp'v'w'p't<sup>1</sup>/<sub>2</sub>g'f g'uw'xgkmp'eg'gp'xgkmp'v'«'eg's wg'ng'v'xcncv'kqp'h'k'pc'ng'f'g'egu'ghgw' uqk'ghg'v'xgo gpv'kp<sup>2</sup> i t<sup>2</sup> g'f'cpu'ng'tcr r qtv'h'kpcn'f'w'r tqlg'0

N'v'xcncv'kqp'f'gu'ghgw'ecv'cn' v'ks wgu'f w'RDH'f'qk'v'v'g'v'kpenwug'f'cpu'v'q'w'gu'ngu'<sup>2</sup> xcncv'kqp'u'f'g' r qv'ghgw'ng'g'v'f'g'r' tqlg'v'f'w'RDH'g'v'v'g'ghg'ew<sup>2</sup> g'eqphqto<sup>2</sup> o gpv'cw'r' t'qegu'wu'f<sup>2</sup> et'k'ek'f'guu'q'wu'0



Ngu"cmqecvqpu'f g'RDH'r gwxgpv'cxqkt "<3+'cwewp"ghgv'ecvcl' vls wg"=4+'wp"egt vclp"ghgv'ecvcl' vls wg ="  
qw'5+'f gu'ghgu'ecvcl' vls wgu'ko r qt vcpw0Cxcpv'f ) xcmgt 'f cpu's wmg'o guwt g'ngu'ghgu'ecvcl' vls wgu"  
f w'RDH'qp'v<sup>2</sup> v'uki pkl'ecvku.'kn'guv'p<sup>2</sup> eguuck g'f g" f<sup>2</sup> vgt o kpgt 'uk'wp"ghgv'ecvcl' vls wg'tgxgpf ls w<sup>2</sup> "guv"





3+ N)cmqecvkqp" f w'RDH'c/√gmg'eqpvtkdw² "«'h'wp" f gu² if o gpw'uwxcpw"<

! rko kpgt 'hgu'qduxcergu'cwz 'r tqeguww'r qrkks wgu. 'f g'eqpuqrkf cvkqp' f g'rc' r clz "gv'cwt gu. 'qw' t² f vkt g'hgu'tkus wgu. 's wk'cdqtf gpv'hgu'r tktk² u'f g'eqpuqrkf cvkqp' f g'rc' r clz "gv'qvw'hgu'qduxcergu' «'h'gpi ci go gpv'f g'r ct'vku'r tgpcepvgu'uw r if o gpvct gu'f cpu'hgu'ghqt u'f g'eqpuqrkf cvkqp' f g'rc' r clz "gz kucpw"A

Hcekktg' f gu'ghqt u'f g'eqpuqrkf cvkqp' f g'rc' r clz "gzi rkekgu's wk'cr r qt'v'p'v'f g'p'qwx gmg'u' tguuqwtegu'r qwt'cdqtf gt'hgu'r tktk² u'f g'eqpuqrkf cvkqp' f g'rc' r clz "f cpu'hg' r c { u'A

4+ N)ghgv'ecvnc' vks wg'guv'ki'ng't² uwnvc'f kt gev'f gu'kpvtxgpvkpu'gv'f gu'cevkxk² u'f w'r tqlgv'qw' guv'ki'wp't² uwnvc'fko r cev'f g'rc' r t² ugpeg'f w'r tqlgv'RDH'f cpu'hg' r c { u'A

5+ N)ghgv'ecvnc' vks wg' f w'RDH² vck/ki'ng't² uwnvc'f )wpg'kpvtcev'kqp'gzi rkek'g' r ct "gz go r ng." f gu'f kuewukqpu. 'f gu'² xcmvcvkpu'eqplqkv'gu. 'wpg'r rcpk'k'ecvkqp'eqplqkv'g. "gve0'gpvt'g" n² s vkr g'f w'RDH'gv'f )cwt gu'r ct'vku'r tgpcepvgu'er² u's wk' r ct "eqpu² s wgpv. 'ug'uqpv'gpi ci ² gu' f cpu'f gu'ghqt u'f g'eqpuqrkf cvkqp' f g'rc' r clz "gz kucpw'q'w'p'qwx gcwz "A

Gp"t² uwo ² . "gp"ug"dcucpv'uw"ngu"qtlgpvcvkpu."etk² tgu"gv's wguvkpu"hwtpkgu" f cpu'egwg"pqvg."ki' cr r ct'v'p'f tc"cwz ² xcmvcvgtu'f g'n)cmqecvkqp" f w'RDH'f g'f² vgo kpgt 'f )cdqtf "uk'wp'ghgv'ecvnc' vks wg' t'gx'gp'f ks w² "guv."gp"ghgv."ng't² uwnvc'f )wpg'cmqecvkqp" f w'RDH'gv'g'p'uv'k'g' f cpu's wmg'o guwt'g'wp'vgn' ghgv'c"² v² "uki p'k'k'ec'v'k'o Ngu"² xcmvcvgtu'f gxtqpv'hwtpk' "wpg"cpnc' ug'ur² ekhs wg'gv'f gu'kphqto cvkpu's wk'uqwk'gpp'gpv'egu' ² xcmvcvkpu'f cpu'ngwtu'ter r qt'u0

Ngu'ghgv'ecvnc' vks wgu'hk'p'cep'k'gtu'eqpv'kpvt'qp'v'f ) v'g"cwq/f² emt² u'f cpu'ngu'ter r qt'u'f g'r tqlgv' eqphqto ² o gpv'«'rc' r tc'vks wg'gp"eqwtu"\*ter r qt'v'Mqdq-"gv'ugt'qp'v'cpnc' u² u'r ct "ng"RDH'cw'uk² i g'f'g' n)QP W0 F g'r nuu." f cpu'ng"ecf tg" f g"n² xcmvcvkqp" h'k'p'crg."ngu"² xcmvcvgtu"² xcmvgt'qp'v'² i crgo gpv'ngu'ghgv' ecvnc' vks wgu'hk'p'cep'k'gtu."gp'ug"dcucpv'uw"< /Ngu'ter r qt'u'f g'r tqlgv'Mqdq'uwuo gpvk'qp'p² u'gp'² vcp'v'r t'w'f gpw's wcp'v'cwz 'f w' r'k'ec'vk'p'u'r q'v'p'v'k'gmg'u' f cpu'ngu'ter r qt'u+ /F )cwt'gu' f qewo gpw' hwtpku' r ct" ngu' TWP QU" gv' ngu' P WP QU" f cpu' ng" ecf tg" f g" ngz'co gp' f qewo gpv'ct'g'f'g'h² xcmvcvkqp'gv'f gu'q'wku'f ) xcmvcvkqp'gp'v'g'k'p'u."gps w' wgu."gve0-

N? xcmvdp"r gw"´tg"hckg"«"r" hku"cw"pkxgcw"f w"r tqlgv"gv" f w"r qvghwkg"r ct"tcr r qtv"«"r"  
eqpvdwkp"i mdcrg" f wRDH

*Effet catalytique*~~Effet~~*efficacancier du*