Hexafluoroisopropanol mediated benign synthesis of 2H-pyrido[1,2-a]pyrimidin-2-ones by using a domino protocol

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Materials and instrumentation

All commercial chemicals and solvents are reagent grade and were used without further treatment unless otherwise noted. 1H NMR spectra were obtained with a Varian Mercury-300MHz with TMS as internal standard. 13C NMR spectra were obtained with a Varian Mercury-75MHz with TMS as internal standard. The ESI-FTMS Mass spectra were recorded Bruker ApexII-FTMS system. Low resolution mass spectra were recorded in Shimadzu QQQ instrument.
3-Methyl-2H-pyrido[1,2-a]pyrimidin-2-one (12)

$^1$H NMR of 12

$^{13}$C NMR of 12
3,9-Dimethyl-2H-pyrido[1,2-a]pyrimidin-2-one (13)

$^1$H NMR of 13
$^1$H NMR of 13
$^{13}$C NMR of 13
HMBC of 13 (CDCl₃)
3,8-Dimethyl-2H-pyrido[1,2-\(a\)]pyrimidin-2-one (14)

\(^1\)H NMR of 14

\(^{13}\)C NMR of 14
3,7-Dimethyl-2H-pyrido[1,2-\(a\)]pyrimidin-2-one (15)

\(^1\)H NMR of 15

\(^{13}\)C NMR of 15
8-Ethyl-3-methyl-2H-pyrido[1,2-a]pyrimidin-2-one (16)

$^1$H NMR of 16

$^{13}$C NMR of 16
9-Fluoro-3-methyl-2H-pyrido[1,2-\textit{\textalpha}]-pyrimidin-2-one (17)

$^1$H NMR of 17

$^{13}$C NMR of 17
7-Fluoro-3-methyl-2$H$-pyrido[1,2-$a$]pyrimidin-2-one (18)

$^1$H NMR of 18

$^{13}$C NMR of 18
7-Chloro-3-methyl-2H-pyrido[1,2-\(\alpha\)]pyrimidin-2-one (19)

\(^1\)H NMR of 19

\(^{13}\)C NMR of 19
8-Bromo-3-methyl-2H-pyrido[1,2-a]pyrimidin-2-one (20)

$^1$H NMR of 20

$^{13}$C NMR of 20
7-Iodo-3-methyl-2H-pyrido[1,2-a]pyrimidin-2-one (21)

$^1$H NMR of 21

$^{13}$C NMR of 21
3-Methyl-9-(trifluoromethyl)-2H-pyrido[1,2-a]pyrimidin-2-one (22)

$^1$H NMR of 22

$^{13}$C NMR of 22
3-Methyl-7-(trifluoromethyl)-2H-pyrido[1,2-\textit{a}]pyrimidin-2-one (23)

\textbf{\textsuperscript{1}H NMR of 23}

\textbf{\textsuperscript{13}C NMR of 23}
9-Bromo-3,7-dimethyl-2H-pyrido[1,2-a]pyrimidin-2-one (24)

$^1$H NMR of 24

$^{13}$C NMR of 24
7-Bromo-3,8-dimethyl-2H-pyrido[1,2-a]pyrimidin-2-one (25)

$^1$H NMR of 25

$^{13}$C NMR of 25
7-Iodo-3,9-dimethyl-2H-pyrido[1,2-a]pyrimidin-2-one (26)

$^1$H NMR of 26

$^{13}$C NMR of 26
3-Benzyl-2H-pyrido[1,2-a]pyrimidin-2-one (27)

$^1$H NMR of 27

$^{13}$C NMR of 27
3-Benzyl-9-methyl-2H-pyrido[1,2-a]pyrimidin-2-one (28)

$^1$H NMR of 28

$^{13}$C NMR of 28
3-Benzyl-7-methyl-2H-pyrido[1,2-a]pyrimidin-2-one (29)

$^1$H NMR of 29

$^{13}$C NMR of 29
3-Benzyl-9-fluoro-4H-pyrido[1,2-a]pyrimidin-4-one (30)

$^1$H NMR of 30

$^{13}$C NMR of 30
3-Benzyl-7-fluoro-2H-pyrido[1,2-a]pyrimidin-2-one (31)

$^1$H NMR of 31

$^{13}$C NMR of 31
3-Benzyl-7-chloro-2H-pyrido[1,2-a]pyrimidin-2-one (32)

$^1$H NMR of 32

$^{13}$C NMR of 32
3-Benzyl-9-bromo-2H-pyrido[1,2-a]pyrimidin-2-one (33)

$^1$H NMR of 33

$^1$C NMR of 33
3-Benzyl-7-bromo-2\textit{H}-pyrido[1,2-\textit{a}]pyrimidin-2-one (34)

$^1$H NMR of 34

$^{13}$C NMR of 34
3-Benzyl-7-iodo-2H-pyrido[1,2-a]pyrimidin-2-one (35)

$^{1}H$ NMR of 35

$^{13}C$ NMR of 35
3-(Benzy1)-9-(trifluoromethyl)-2H-pyrido[1,2-a]pyrimidin-2-one (36)

$^1$H NMR of 36

$^{13}$C NMR of 36
3-Benzyl-7-(trifluoromethyl)-2H-pyrido[1,2-a]pyrimidin-2-one (37)

$^1$H NMR of 37

$^{13}$C NMR of 37
3-Benzyl-7-bromo-9-methyl-2H-pyrido[1,2-a]pyrimidin-2-one (38)

$^1$H NMR of 38

$^{13}$C NMR of 38
3-Benzyl-9-bromo-7-methyl-2H-pyrido[1,2-a]pyrimidin-2-one (39)

$^1$H NMR of 39

$^{13}$C NMR of 39
9-Methyl-3-[(4-nitrophenyl)methyl]-2H-pyrido[1,2-a]pyrimidin-2-one (40)

$^1$H NMR of 40

$^{13}$C NMR of 40
7-Methyl-3-[(4-nitrophenyl)methyl]-2H-pyrido[1,2-a]pyrimidin-2-one (41)

$^1$H NMR of 41

$^{13}$C NMR of 41
7-Fluoro-3-(4-nitrobenzyl)-2H-pyrido[1,2-a]pyrimidin-2-one (42)

$^1$H NMR of 42

$^{13}$C NMR of 42
7-Chloro-3-(4-nitrobenzyl)-2H-pyrido[1,2-a]pyrimidin-2-one (43)

$^1$H NMR of 43

$^{13}$C NMR of 43
9-Bromo-3-[(4-nitrophenyl)methyl]-4H-pyrido[1,2-a]pyrimidin-4-one (44)

$^1$H NMR of 44

$^{13}$C NMR of 44
2-Methyl-3H-pyrimido[1,2-a]quinolin-3-one (45)

$^1$H NMR of 45

$^{13}$C NMR of 45