HfO_2 grown with Tetrakis(Dimethylamido)Hafnium ($Hf(NMe_2)_4$) and H_2O

Growth rates: 1.0A/c@175C, 0.9A/c@200C, 0.94A/c@250C,
Recipe:
precursors: $Hf(NMe_2)_4$ heated @75C, and H_2O

250C growth:
8=9=250C, 6=7=10=150C, flow=20sccm

pulse H2O, 0.03s
wait 5s
pulse $Hf(NMe_2)_4$, 0.3
wait 5s

	Instruction	#	value
0	heater	9	250
1	heater	8	250
2	stabilize	9	
3	stabilize	8	
4	pulse	0	0.03
5	wait		5
6	pulse	1	0.3
7	wait		5
8	goto	4	100

200C growth:

8=9=200C,6=7=10=150C,flow=20sccm
pulse H_2O, 0.015s
wait 25s
pulse $Hf(NMe_2)_4$, 0.15
wait 25s

	Instruction	#	value
0	heater	9	200
1	heater	8	200
2	stabilize	9	
3	stabilize	8	
4	pulse	0	0.015
5	wait		25
6	pulse	1	0.15
7	wait		25
8	goto	4	100

110-175C growth:

8=9= desired set point,6=7=10=150C,flow=20sccm
pulse H2O, 0.015s
wait 60s
pulse $Hf(NMe_2)_4$, 0.15
wait 60s

	Instruction	#	value
0	heater	9	175
1	heater	8	175
2	stabilize	9	
3	stabilize	8	
4	pulse	0	0.015
5	wait		60
6	pulse	1	0.15
7	wait		60
8	goto	4	100