

## Supplementary Information

Table S1. Raw observations obtained from the experimental design.

N°	Temperature (°C)	Pressure (MPa)	Loading of Mo (wt.%)	R <sub>Ph0</sub> (mol <sub>Phenol</sub> /g <sub>cat</sub> s) x10 <sup>8</sup>	Selectivity HYD/DDO
1	360	5.5	12	481	0.21
2	320	4	12	14	0.54
3	360	3	12	261	0.3
4	280	3	12	1.1	0.78
5	320	3	10	5	0.62
6	280	4	10	1.5	0.97
7	360	4	15	150	0.43
8	280	4	15	1.8	0.96
9	280	5.5	12	2.3	0.97
10	320	5.5	10	33	0.6
11	360	4	10	198	0.32
12	320	5.5	15	47	0.59
13	320	3	15	26	0.53