+Supporting Information (B): Detailed information of the original dataset

Machine learning-aided catalyst screening and multi-objective optimization for the indirect CO_2 hydrogenation to methanol and ethylene glycol process

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Table S1. Compiled experimental input-output data for the hydrogenation of ethylene carbonate to methanol and ethylene glycol through PCA and feature engineering improvements.

S. No / Data points	Inputs																Outputs			Reference
	Catalyst Descriptor									Preparation conditions		Operating conditions			Feeding conditions		Conversion	Yield		
	Catalyst type	Cu load	Promoter I	Content of promoter metal I	Promoter II	Content of promoter metal II	Support type	Preparation method	Specific surface area	Calcination temperature	Reduction temperature	Reaction temperature	Reaction pressure	WHSV	H2/EC	Solvent type	Conversion rate of EC	Yield of EG	Yield of MEOH	
1	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	170	3	0.63	100	THF	0.9876	0.9341	0.8006	[1]
2	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.63	100	THF	0.9998	0.986	0.8391	[1]
3	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	190	3	0.63	100	THF	1	0.9331	0.8296	[1]
4	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	200	3	0.63	100	THF	1	0.8833	0.7782	[1]
5	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.105	100	THF	0.9998	0.7816	0.7633	[1]
6	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.21	100	THF	0.9988	0.8307	0.809	[1]
7	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.315	100	THF	0.9985	0.8753	0.8069	[1]
8	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.42	100	THF	0.9983	0.895	0.7999	[1]
9	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.525	100	THF	0.9981	0.9096	0.8129	[1]
10	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.735	100	THF	0.9994	0.9003	0.7834	[1]
11	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.84	100	THF	0.9992	0.9016	0.8131	[1]
12	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.945	100	THF	0.9973	0.8963	0.7814	[1]
13	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.63	50	THF	1	0.9287	0.7944	[1]
14	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.63	150	THF	0.9996	0.9963	0.8256	[1]
15	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.63	200	THF	0.9996	0.9814	0.8488	[1]
16	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.1575	100	THF	0.9988	0.808	0.7853	[1]
17	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.2625	100	THF	0.9985	0.8536	0.8073	[1]
18	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.3675	100	THF	0.9996	0.8865	0.8055	[1]
19	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.4725	100	THF	0.9998	0.9055	0.8093	[1]
20	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.5775	100	THF	0.9998	0.9479	0.8274	[1]
21	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.6825	100	THF	0.9998	0.9453	0.8165	[1]
22	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.7875	100	THF	0.9998	0.9053	0.802	[1]
23	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.8925	100	THF	0.9998	0.9054	0.8029	[1]
24	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.63	62.6	THF	0.9997	0.9334	0.7953	[1]
25	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.63	74.83	THF	0.9997	0.939	0.7967	[1]
26	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.63	86.81	THF	0.9998	0.9454	0.7982	[1]
27	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.63	112.54	THF	0.9999	0.9623	0.8082	[1]
28	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.63	125.16	THF	0.9999	0.9749	0.8138	[1]
29	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.63	138.16	THF	0.9999	0.9868	0.8208	[1]
30	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.63	163	THF	0.9999	0.9946	0.8321	[1]
31	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.63	175.11	THF	0.9999	0.9884	0.8377	[1]
32	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	180	3	0.63	187.85	THF	0.9999	0.9836	0.8433	[1]
33	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	172.26	3	0.63	100	THF	0.989	0.9445	0.8064	[1]
34	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	174.71	3	0.63	100	THF	0.993	0.9576	0.8157	[1]
35	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	177.26	3	0.63	100	THF	0.9971	0.9704	0.8258	[1]
36	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	182.31	3	0.63	100	THF	0.9997	0.9701	0.8339	[1]
37	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	184.86	3	0.63	100	THF	0.9998	0.9565	0.8319	[1]
38	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	187.35	3	0.63	100	THF	0.9998	0.9435	0.8291	[1]
39	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	192.42	3	0.63	100	THF	0.9996	0.9187	0.8153	[1]
40	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	195.02	3	0.63	100	THF	0.9994	0.9056	0.8014	[1]
41	Cu-C/SiO2-R	22	None	0	None	0	SiO2-C	AE	201.3	450	350	197.4	3	0.63	100	THF	0.9993	0.8925	0.787	[1]
42	Cu/SiO2	31.2	None	0	None	0	SiO2	AE	489	450	300	180	3	0.75	180	1,4-dioxane	0.9992	0.9916	0.7406	[2]
43	Cu/SiO2	31.2	None	0	None	0	SiO2	AE	489	450	300	180	3	1	180	1,4-dioxane	0.9735	0.9568	0.7206	[2]
44	Cu/SiO2	31.2	None	0	None	0	SiO2	AE	489	450	300	180	3	1.25	180	1,4-dioxane	0.9251	0.9202	0.6964	[2]
45	Cu/SiO2	31.2	None	0	None	0	SiO2	AE	489	450	300	180	3	1.5	180	1,4-dioxane	0.8602	0.846	0.6394	[2]
46	xMo-Cu/SiO2	30.6	Mo	0.1	None	0	SiO2	AE-IWI	465	500	300	180	3	0.75	180	1,4-dioxane	1	0.9888	0.7619	[2]
47	xMo-Cu/SiO2	30.6	Mo	0.1	None	0	SiO2	AE-IWI	465	500	300	180	3	1	180	1,4-dioxane	0.9996	0.9926	0.7559	[2]
48	xMo-Cu/SiO2	30.6	Mo	0.1	None	0	SiO2	AE-IWI	465	500	300	180	3	1.25	180	1,4-dioxane	0.9814	0.9821	0.7333	[2]
49	xMo-Cu/SiO2	30.6	Mo	0.1	None	0	SiO2	AE-IWI	465	500	300	180	3	1.5	180	1,4-dioxane	0.9547	0.9455	0.7041	[2]
50	xMo-Cu/SiO2	30.6	Mo	0.1	None	0	SiO2	AE-IWI	465	500	300	180	3	2	180	1,4-dioxane	0.8847	0.8759	0.6155	[2]
51	xMo-Cu/SiO2	30.2	Mo	0.49	None	0	SiO2	AE-IWI	448	500	300	180	3	0.75	180	1,4-dioxane	0.9997	0.9878	0.7958	[2]
52	xMo-Cu/SiO2	30.2	Mo	0.49	None	0	SiO2	AE-IWI	448	500	300	180	3	1	180	1,4-dioxane	1	0.9908	0.8088	[2]
53	xMo-Cu/SiO2	30.2	Mo	0.49	None	0	SiO2	AE-IWI	448	500	300	180	3	1.25	180	1,4-dioxane	1	0.992	0.7838	[2]
54	xMo-Cu/SiO2	30.2	Mo	0.49	None	0	SiO2	AE-IWI	448	500	300	180	3	1.5	180	1,4-dioxane	0.9864	0.98	0.7444	[2]
55	xMo-Cu/SiO2	30.2	Mo	0.49	None	0	SiO2	AE-IWI	448	500	300	180	3	2	180	1,4-dioxane	0.9329	0.9292	0.6655	[2]
56	xMo-Cu/SiO2	31.7	Mo	1.05	None	0	SiO2	AE-IWI	460	500	300	180	3	0.75	180	1,4-dioxane	0.9997	0.9888	0.6953	[2]
57	xMo-Cu/SiO2	31.7	Mo	1.05	None	0	SiO2	AE-IWI	460	500	300	180	3	1	180	1,4-dioxane	0.9493	0.941	0.6885	[2]
58	xMo-Cu/SiO2	31.7	Mo	1.05	None	0	SiO2	AE-IWI	460	500	300	180	3	1.25	180	1,4-dioxane	0.8814	0.875	0.6549	[2]
59	xMo-Cu/SiO2	31.7	Mo	1.05	None	0	SiO2	AE-IWI	460	500	300	180	3	1.5	180	1,4-dioxane	0.8055	0.7991	0.5846	[2]
60	xMo-Cu/SiO2	31.7	Mo	1.05	None	0	SiO2	AE-IWI	460	500	300	180	3	0.81	180	1,4-dioxane	0.9885	0.9781	0.6932	[2]
61	xMo-Cu/SiO2	31.7	Mo	1.05	None	0	SiO2	AE-IWI	460	500	300	180	3	0.87	180	1,4-dioxane	0.9763	0.9659	0.6916	[2]
62	xMo-Cu/SiO2	31.7	Mo	1.05	None	0	SiO2	AE-IWI	460	500	300	180	3	0.93	180	1,4-dioxane	0.9643	0.9537	0.6899	[2]
63	xMo-Cu/SiO2	31.7	Mo	1.05	None	0	SiO2	AE-IWI	460	500	300	180	3	1.06	180	1,4-dioxane	0.9342	0.9246	0.6799	[2]
64	xMo-Cu/SiO2	31.7	Mo	1.05	None	0	SiO2	AE-IWI	460	500	300	180	3	1.12	180	1,4-dioxane	0.9172	0.9079	0.6712	[2]
65	xMo-Cu/SiO2	31.7	Mo	1.05	None	0	SiO2	AE-IWI	460	500	300	180	3	1.18	180	1,4-dioxane	0.9007	0.8905	0.6626	[2]
66	xMo-Cu/SiO2	31.7	Mo	1.05	None	0	SiO2	AE-IWI	460	500	300	180	3	1.31	180	1,4-dioxane	0.864	0.8576	0.6367	[2]
67	xMo-Cu/SiO2	31.7	Mo	1.05	None	0	SiO2	AE-IWI	460	500	300	180	3	1.37	180	1,4-dioxane	0.8443	0.8381	0.6188	[2]
68	xMo-Cu/SiO2	31.7	Mo	1.05	None	0	SiO2	AE-IWI	460	500	300	180	3	1.44	180	1,4-dioxane	0.8248	0.8187	0.601	[2]
69	Cu/SiO2	31.2	None	0	None	0	SiO2	AE	489	450	300	180	3	0.81	180	1,4-dioxane	0.9948	0.9833	0.7349	[2]
70	Cu/SiO2	31.2	None	0	None	0	SiO2	AE	489	450	300	180	3	0.87	180	1,4-dioxane	0.988	0.9745	0.7298	[2]
71	Cu/SiO2	31.2	None	0	None	0	SiO2	AE	489	450	300	180	3	0.93	180	1,4-dioxane	0.9817	0.9655	0.7246	[2]
72	Cu/SiO2	31.2	None	0	None	0	SiO2	AE	489	450	300	180	3	1.06	180	1,4-dioxane	0.9616	0.9481	0.7132	[2]
73	Cu/SiO2	31.2	None	0	None	0	SiO2	AE	489	450	300	180	3	1.13	180	1,4-dioxane	0.9496	0.9386	0.7074	[2]
74	Cu/SiO2	31.2	None	0	None	0	SiO2	AE	489	450	300	180	3	1.19	180	1,4-dioxane	0.9378	0.9289	0.7013	[2]
75	Cu/SiO2	31.2	None	0	None	0	SiO2	AE	489	450	300	180	3	1.31	180	1,4-dioxane	0.91	0.9036	0.681	[2]
76	Cu/SiO2	31.2	None	0	None	0	SiO2	AE	489	450	300	180	3	1.37	180	1,4-dioxane	0.8937	0.8844	0.667	[2]
77	Cu/SiO2	31.2	None	0	None	0	SiO2	AE	489	450	300	180	3	1.44	180	1,4-dioxane	0.8774	0.8646	0.6518	[2]
78	xMo-Cu/SiO2	30.6	Mo	0.1	None	0	SiO2	AE-IWI	465	500	300	180	3	0.82	180	1,4-dioxane	0.9998	0.9903	0.7601	[2]
79	xMo-Cu/SiO2	30.6	Mo	0.1	None	0	SiO2	AE-IWI	465	500	300	180	3	0.88	180	1,4-dioxane	0.9996	0.9914	0.7587	[2]
80	xMo-Cu/SiO2	30.6	Mo	0.1	None	0	SiO2	AE-IWI	465	500	300	180	3	0.94	180	1,4-dioxane	0.999	0.9919	0.7573	[2]
81	xMo-Cu/SiO2	30.6	Mo	0.1	None	0	SiO2	AE-IWI	465	500	300	180	3	1.07	180	1,4-dioxane	0.996	0.9901	0.7498	[2]
82	xMo-Cu/SiO2	30.6	Mo	0.1	None	0	SiO2	AE-IWI	465	500	300	180	3	1.12	180	1,4-dioxane	0.9915	0.9876	0.7442	[2]
83	xMo-Cu/SiO2	30.6	Mo	0.1	None	0	SiO2	AE-IWI	465	500	300	180	3	1.19	180	1,4-dioxane	0.987	0.9847	0.7388	[2]
84	xMo-Cu/SiO2	30.6	Mo	0.1	None	0	SiO2	AE-IWI	465	500	300	180	3	1.31	180	1,4-dioxane	0.9759	0.9736	0.7253	[2]
85	xMo-Cu/SiO2	30.6	Mo	0.1	None	0	SiO2	AE-IWI	465	500	300	180	3	1.37	180	1,4-dioxane	0.9693	0.9646	0.7181	[2]
86	xMo-Cu/SiO2	30.6	Mo	0.1	None	0	SiO2	AE-IWI	465	500	300	180	3	1.44	180	1,4-dioxane	0.9621	0.9546	0.7111	[2]
87	xMo-Cu/SiO2	30.6	Mo	0.1	None	0	SiO2	AE-IWI	465	500	300	180	3	1.63	180	1,4-dioxane	0.937	0.9284	0.681	[2]
88	xMo-Cu/SiO2	30.6	Mo	0.1	None	0	SiO2	AE-IWI	465	500	300	180	3	1.76	180	1,4-dioxane	0.9193	0.9115	0.6588	[2]
89	xMo-Cu/SiO2	30.6	Mo	0.1	None	0	SiO2	AE-IWI	465	500	300	180	3	1.88	180	1,4-dioxane	0.9014	0.8932	0.6359	[2]
90	xMo-Cu/SiO2	30.2	Mo	0.49	None	0	SiO2	AE-IWI	448	500	300	180	3	0.81	180	1,4-dioxane	1	0.988	0.7981	[2]
91	xMo-Cu/SiO2	30.2	Mo	0.49	None	0	SiO2	AE-IWI	448	500	300	180	3	0.87	180	1,4-dioxane	0.9998	0.9887	0.8016	[2]
92	xMo-Cu/SiO2	30.2	Mo	0.49	None	0	SiO2	AE-IWI	448	500	300	180	3	0.94	180	1,4-dioxane	0.9996	0.9896	0.8051	[2]
93	xMo-Cu/SiO2	30.2	Mo	0.49	None	0	SiO2	AE-IWI	448	500	300	180	3	1.06	180	1,4-dioxane	0.9994	0.991	0.8023	[2]
94	xMo-Cu/SiO2	30.2	Mo	0.49	None	0	SiO2	AE-IWI	448	500	300	180	3	1.12	180	1,4-dioxane	0.9992	0.9916	0.7955	[2]
95	xMo-Cu/SiO2	30.2	Mo	0.49	None	0	SiO2	AE-IWI	448	500	300	180	3	1.18	180	1,4-dioxane	0.9989	0.9921	0.7892	[2]
96	xMo-Cu/SiO2	30.2	Mo	0.49	None	0	SiO2	AE-IWI	448	500	300	180	3	1.31	180	1,4-dioxane	0.9983	0.9894	0.7728	[2]
97	xMo-Cu/SiO2	30.2	Mo	0.49	None	0	SiO2	AE-IWI	448	500	300	180	3	1.37	180	1,4-dioxane	0.9942	0.9862	0.7633	[2]
98	xMo-Cu/SiO2	30.2	Mo	0.49	None	0	SiO2	AE-IWI	448	500	300	180	3	1.44	180	1,4-dioxane	0.9911	0.9826	0.7528	[2]
99	xMo-Cu/SiO2	30.2	Mo	0.49	None	0	SiO2	AE-IWI	448	500	300	180	3	1.62	180	1,4-dioxane	0.9741	0.9684	0.7236	[2]
100	xMo-Cu/SiO2	30.2	Mo	0.49	None	0	SiO2	AE-IWI	448	500	300	180	3	1.75	180	1,4-dioxane	0.9614	0.9551	0.7035	[2]
101	xMo-Cu/SiO2	30.2	Mo	0.49	None	0	SiO2	AE-IWI	448	500	300	180	3	1.88	180	1,4-dioxane	0.9465	0.9424	0.683	[2]
102	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	150	180	4	0.13	100	1,4-dioxane	0.9799	0.97	0.8649	[3]
103	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	250	180	4	0.13	100	1,4-dioxane	0.9782	0.9683	0.9093	[3]
104	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	350	180	4	0.13	100	1,4-dioxane	0.9799	0.97	0.8517	[3]
105	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	450	180	4	0.13	100	1,4-dioxane	0.9799	0.9684	0.6562	[3]
106	S-1-210@CuSiO3	13.6	None	0	None	0	S-1-210	OSHT	363	450	250	180	4	0.13	100	1,4-dioxane	0.9714	0.9595	0.5928	[3]
107	S-1-210@CuSiO3	17.4	None	0	None	0	S-1-210	OSHT	344	450	250	180	4	0.13	100	1,4-dioxane	0.9796	0.97	0.6955	[3]
108	S-1-210@CuSiO3	25.2	None	0	None	0	S-1-210	OSHT	337	450	250	180	4	0.13	100	1,4-dioxane	0.9812	0.9708	0.6886	[3]
109	S-1-210@CuSiO3	31.7	None	0	None	0	S-1-210	OSHT	341	450	250	180	4	0.13	100	1,4-dioxane	0.9812	0.9724	0.6469	[3]
110	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	250	180	4	0.39	100	1,4-dioxane	0.9158	0.8788	0.7707	[3]
111	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	250	180	4	0.65	100	1,4-dioxane	0.8484	0.8141	0.6612	[3]
112	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	250	180	4	0.91	100	1,4-dioxane	0.8096	0.7618	0.6234	[3]
113	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	174.46	180	4	0.13	100	1,4-dioxane	0.9796	0.9693	0.8764	[3]
114	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	198.42	180	4	0.13	100	1,4-dioxane	0.9797	0.9695	0.8871	[3]
115	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	224.72	180	4	0.13	100	1,4-dioxane	0.981	0.9708	0.8997	[3]
116	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	274.42	180	4	0.13	100	1,4-dioxane	0.9791	0.9691	0.8972	[3]
117	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	299.89	180	4	0.13	100	1,4-dioxane	0.9799	0.9699	0.8827	[3]
118	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	325.5	180	4	0.13	100	1,4-dioxane	0.9813	0.9714	0.8686	[3]
119	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	374.65	180	4	0.13	100	1,4-dioxane	0.9802	0.9717	0.8032	[3]
120	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	399.57	180	4	0.13	100	1,4-dioxane	0.9802	0.9713	0.7549	[3]
121	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	425.04	180	4	0.13	100	1,4-dioxane	0.9819	0.9723	0.7092	[3]
122	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	250	180	4	0.19	100	1,4-dioxane	0.9717	0.9542	0.8808	[3]
123	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	250	180	4	0.26	100	1,4-dioxane	0.9552	0.9305	0.8452	[3]
124	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	250	180	4	0.33	100	1,4-dioxane	0.9387	0.9086	0.8092	[3]
125	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	250	180	4	0.46	100	1,4-dioxane	0.8965	0.8602	0.7392	[3]
126	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	250	180	4	0.52	100	1,4-dioxane	0.8806	0.845	0.7145	[3]
127	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	250	180	4	0.58	100	1,4-dioxane	0.8693	0.8347	0.691	[3]
128	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	250	180	4	0.71	100	1,4-dioxane	0.8397	0.8022	0.6523	[3]
129	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	250	180	4	0.78	100	1,4-dioxane	0.8284	0.7876	0.6417	[3]
130	S-1-210@CuSiO3	21.4	None	0	None	0	S-1-210	OSHT	335	450	250	180	4	0.84	100	1,4-dioxane	0.8193	0.7748	0.6328	[3]
131	Cu/HMS	19	None	0	None	0	HMS	AE	417	450	300	180	3	0.105	257	THF	0.97	0.96	0.527	[4]
132	Cu/HMS	27.7	None	0	None	0	HMS	AE	368	450	300	180	3	0.105	257	THF	1	0.99	0.565	[4]
133	Cu/HMS	34.3	None	0	None	0	HMS	AE	255	450	300	180	3	0.105	257	THF	1	0.99	0.663	[4]
134	Cu/HMS	44.6	None	0	None	0	HMS	AE	227	450	300	180	3	0.105	257	THF	1	0.99	0.74	[4]
135	Cu/HMS	53.7	None	0	None	0	HMS	AE	220	450	300	180	3	0.105	257	THF	1	0.99	0.688	[4]
136	Cu/SiO2	31.8	None	0	None	0	SiO2	OPMHT	393	450	350	180	4	0.64	20	1,4-dioxane	0.995	0.9851	0.7811	[5]
137	xMoOx-Cu/SiO2	28.1	MoOx	0.02	None	0	SiO2	OPMHT	386	450	350	180	4	0.64	20	1,4-dioxane	0.992	0.9821	0.8878	[5]
138	xMoOx-Cu/SiO2	28.9	MoOx	0.05	None	0	SiO2	OPMHT	413	450	350	180	4	0.64	20	1,4-dioxane	0.994	0.9841	0.8658	[5]
139	xMoOx-Cu/SiO2	26.8	MoOx	0.11	None	0	SiO2	OPMHT	301	450	350	180	4	0.64	20	1,4-dioxane	0.986	0.9761	0.8213	[5]
140	xMoOx-Cu/SiO2	20.1	MoOx	3.75	None	0	SiO2	OPMHT	169	450	350	180	4	0.64	20	1,4-dioxane	0.955	0.9455	0.7659	[5]
141	xMoOx-Cu/SiO2	28.1	MoOx	0.02	None	0	SiO2	OPMHT	386	450	350	180	4	0.89	20	1,4-dioxane	0.9527	0.9443	0.8373	[5]
142	xMoOx-Cu/SiO2	28.1	MoOx	0.02	None	0	SiO2	OPMHT	386	450	350	180	4	1.51	20	1,4-dioxane	0.9126	0.887	0.7713	[5]
143	xMoOx-Cu/SiO2	28.1	MoOx	0.02	None	0	SiO2	OPMHT	386	450	350	180	4	1.41	20	1,4-dioxane	0.8228	0.7812	0.6691	[5]
144	xMoOx-Cu/SiO2	28.1	MoOx	0.02	None	0	SiO2	OPMHT	386	450	350	180	4	0.7	20	1,4-dioxane	0.9826	0.9721	0.8747	[5]
145	xMoOx-Cu/SiO2	28.1	MoOx	0.02	None	0	SiO2	OPMHT	386	450	350	180	4	0.76	20	1,4-dioxane	0.972	0.9607	0.8619	[5]
146	xMoOx-Cu/SiO2	28.1	MoOx	0.02	None	0	SiO2	OPMHT	386	450	350	180	4	0.82	20	1,4-dioxane	0.9628	0.9512	0.8502	[5]
147	xMoOx-Cu/SiO2	28.1	MoOx	0.02	None	0	SiO2	OPMHT	386	450	350	180	4	0.96	20	1,4-dioxane	0.94	0.9254	0.8164	[5]
148	xMoOx-Cu/SiO2	28.1	MoOx	0.02	None	0	SiO2	OPMHT	386	450	350	180	4	1.02	20	1,4-dioxane	0.9297	0.9092	0.8	[5]
149	xMoOx-Cu/SiO2	28.1	MoOx	0.02	None	0	SiO2	OPMHT	386	450	350	180	4	1.08	20	1,4-dioxane	0.9209	0.8959	0.7833	[5]
150	xMoOx-Cu/SiO2	28.1	MoOx	0.02	None	0	SiO2	OPMHT	386	450	350	180	4	1.22	20	1,4-dioxane	0.8876	0.8546	0.7401	[5]
151	xMoOx-Cu/SiO2	28.1	MoOx	0.02	None	0	SiO2	OPMHT	386	450	350	180	4	1.28	20	1,4-dioxane	0.865	0.8282	0.7149	[5]
152	xMoOx-Cu/SiO2	28.1	MoOx	0.02	None	0	SiO2	OPMHT	386	450	350	180	4	1.34	20	1,4-dioxane	0.8435	0.8043	0.6917	[5]
153	Cu/SiO2	41.8	None	0	None	0	SiO2	AE	582	350	350	180	3	1	40	1,4-dioxane	0.9333	0.9112	0.7058	[6]
154	Cu/SiO2	41.8	None	0	None	0	SiO2	AE	582	350	350	180	3	1	60	1,4-dioxane	0.9776	0.9517	0.861	[6]
155	Cu/SiO2	41.8	None	0	None	0	SiO2	AE	582	350	350	180	3	1	100	1,4-dioxane	0.9883	0.9621	0.7914	[6]
156	Cu/SiO2	41.8	None	0	None	0	SiO2	AE	582	350	350	180	3	1	140	1,4-dioxane	0.9941	0.9684	0.729	[6]
157	Cu/SiO2	41.8	None	0	None	0	SiO2	AE	582	350	350	180	3	1	180	1,4-dioxane	0.9945	0.9703	0.6758	[6]
158	xPt-Cu/SiO2	41.2	Pt	0.12	None	0	SiO2	AE-IWI	578	350	350	180	3	1	40	1,4-dioxane	0.8929	0.8702	0.7858	[6]
159	xPt-Cu/SiO2	41.2	Pt	0.12	None	0	SiO2	AE-IWI	578	350	350	180	3	1	60	1,4-dioxane	0.9884	0.9628	0.896	[6]
160	xPt-Cu/SiO2	41.2	Pt	0.12	None	0	SiO2	AE-IWI	578	350	350	180	3	1	100	1,4-dioxane	0.993	0.9673	0.8339	[6]
161	xPt-Cu/SiO2	41.2	Pt	0.12	None	0	SiO2	AE-IWI	578	350	350	180	3	1	140	1,4-dioxane	0.9958	0.9744	0.7527	[6]
162	xPt-Cu/SiO2	41.2	Pt	0.12	None	0	SiO2	AE-IWI	578	350	350	180	3	1	180	1,4-dioxane	0.9976	0.9742	0.6864	[6]
163	xPt-Cu/SiO2	40	Pt	0.21	None	0	SiO2	AE-IWI	569	350	350	180	3	1	40	1,4-dioxane	0.933	0.9129	0.8115	[6]
164	xPt-Cu/SiO2	40	Pt	0.21	None	0	SiO2	AE-IWI	569	350	350	180	3	1	60	1,4-dioxane	0.9881	0.9647	0.9474	[6]
165	xPt-Cu/SiO2	40	Pt	0.21	None	0	SiO2	AE-IWI	569	350	350	180	3	1	100	1,4-dioxane	0.9878	0.9681	0.8376	[6]
166	xPt-Cu/SiO2	40	Pt	0.21	None	0	SiO2	AE-IWI	569	350	350	180	3	1	140	1,4-dioxane	0.9879	0.9691	0.7909	[6]
167	xPt-Cu/SiO2	40	Pt	0.21	None	0	SiO2	AE-IWI	569	350	350	180	3	1	180	1,4-dioxane	0.9976	0.9772	0.752	[6]
168	xPt-Cu/SiO2	41.9	Pt	0.48	None	0	SiO2	AE-IWI	518	350	350	180	3	1	40	1,4-dioxane	0.8776	0.8543	0.7539	[6]
169	xPt-Cu/SiO2	41.9	Pt	0.48	None	0	SiO2	AE-IWI	518	350	350	180	3	1	60	1,4-dioxane	0.9528	0.9281	0.8463	[6]
170	xPt-Cu/SiO2	41.9	Pt	0.48	None	0	SiO2	AE-IWI	518	350	350	180	3	1	100	1,4-dioxane	0.9615	0.9344	0.7469	[6]
171	xPt-Cu/SiO2	41.9	Pt	0.48	None	0	SiO2	AE-IWI	518	350	350	180	3	1	140	1,4-dioxane	0.9707	0.9477	0.7003	[6]
172	xPt-Cu/SiO2	41.9	Pt	0.48	None	0	SiO2	AE-IWI	518	350	350	180	3	1	180	1,4-dioxane	0.9722	0.9492	0.6688	[6]
173	Cu/SiO2	41.8	None	0	None	0	SiO2	AE	582	350	350	180	3	1	70	1,4-dioxane	0.9814	0.9537	0.845	[6]
174	Cu/SiO2	41.8	None	0	None	0	SiO2	AE	582	350	350	180	3	1	80	1,4-dioxane	0.9842	0.9571	0.8273	[6]
175	Cu/SiO2	41.8	None	0	None	0	SiO2	AE	582	350	350	180	3	1	90	1,4-dioxane	0.9871	0.961	0.8103	[6]
176	Cu/SiO2	41.8	None	0	None	0	SiO2	AE	582	350	350	180	3	1	110	1,4-dioxane	0.9906	0.965	0.7751	[6]
177	Cu/SiO2	41.8	None	0	None	0	SiO2	AE	582	350	350	180	3	1	120	1,4-dioxane	0.992	0.9663	0.7593	[6]
178	Cu/SiO2	41.8	None	0	None	0	SiO2	AE	582	350	350	180	3	1	130	1,4-dioxane	0.9929	0.967	0.7453	[6]
179	Cu/SiO2	41.8	None	0	None	0	SiO2	AE	582	350	350	180	3	1	150	1,4-dioxane	0.9951	0.9688	0.7161	[6]
180	Cu/SiO2	41.8	None	0	None	0	SiO2	AE	582	350	350	180	3	1	160	1,4-dioxane	0.9954	0.9699	0.7019	[6]
181	Cu/SiO2	41.8	None	0	None	0	SiO2	AE	582	350	350	180	3	1	170	1,4-dioxane	0.9954	0.9704	0.6886	[6]
182	xPt-Cu/SiO2	41.2	Pt	0.12	None	0	SiO2	AE-IWI	578	350	350	180	3	1	70	1,4-dioxane	0.9899	0.9632	0.8825	[6]
183	xPt-Cu/SiO2	41.2	Pt	0.12	None	0	SiO2	AE-IWI	578	350	350	180	3	1	80	1,4-dioxane	0.9911	0.9644	0.866	[6]
184	xPt-Cu/SiO2	41.2	Pt	0.12	None	0	SiO2	AE-IWI	578	350	350	180	3	1	90	1,4-dioxane	0.9923	0.9663	0.8489	[6]
185	xPt-Cu/SiO2	41.2	Pt	0.12	None	0	SiO2	AE-IWI	578	350	350	180	3	1	110	1,4-dioxane	0.9942	0.969	0.8142	[6]

186	xPt-Cu/SiO2	41.2	Pt	0.12	None	0	SiO2	AE-IWI	578	350	350	180	3	1	120	1,4-dioxane	0.9945	0.9704	0.7925	[6]
187	xPt-Cu/SiO2	41.2	Pt	0.12	None	0	SiO2	AE-IWI	578	350	350	180	3	1	130	1,4-dioxane	0.9956	0.9719	0.7729	[6]
188	xPt-Cu/SiO2	41.2	Pt	0.12	None	0	SiO2	AE-IWI	578	350	350	180	3	1	150	1,4-dioxane	0.9971	0.9737	0.7361	[6]
189	xPt-Cu/SiO2	41.2	Pt	0.12	None	0	SiO2	AE-IWI	578	350	350	180	3	1	160	1,4-dioxane	0.9971	0.9732	0.7185	[6]
190	xPt-Cu/SiO2	41.2	Pt	0.12	None	0	SiO2	AE-IWI	578	350	350	180	3	1	170	1,4-dioxane	0.9979	0.9735	0.7007	[6]
191	xPt-Cu/SiO2	40	Pt	0.21	None	0	SiO2	AE-IWI	569	350	350	180	3	1	70	1,4-dioxane	0.9874	0.9636	0.9201	[6]
192	xPt-Cu/SiO2	40	Pt	0.21	None	0	SiO2	AE-IWI	569	350	350	180	3	1	80	1,4-dioxane	0.9874	0.9647	0.8902	[6]
193	xPt-Cu/SiO2	40	Pt	0.21	None	0	SiO2	AE-IWI	569	350	350	180	3	1	90	1,4-dioxane	0.9871	0.9656	0.8634	[6]
194	xPt-Cu/SiO2	40	Pt	0.21	None	0	SiO2	AE-IWI	569	350	350	180	3	1	110	1,4-dioxane	0.9874	0.9676	0.8243	[6]
195	xPt-Cu/SiO2	40	Pt	0.21	None	0	SiO2	AE-IWI	569	350	350	180	3	1	120	1,4-dioxane	0.9873	0.9679	0.8128	[6]
196	xPt-Cu/SiO2	40	Pt	0.21	None	0	SiO2	AE-IWI	569	350	350	180	3	1	130	1,4-dioxane	0.9873	0.9679	0.8014	[6]
197	xPt-Cu/SiO2	40	Pt	0.21	None	0	SiO2	AE-IWI	569	350	350	180	3	1	150	1,4-dioxane	0.9902	0.9704	0.7806	[6]
198	xPt-Cu/SiO2	40	Pt	0.21	None	0	SiO2	AE-IWI	569	350	350	180	3	1	160	1,4-dioxane	0.9926	0.9723	0.7709	[6]
199	xPt-Cu/SiO2	40	Pt	0.21	None	0	SiO2	AE-IWI	569	350	350	180	3	1	170	1,4-dioxane	0.9952	0.9747	0.7608	[6]
200	xPt-Cu/SiO2	41.9	Pt	0.48	None	0	SiO2	AE-IWI	518	350	350	180	3	1	70	1,4-dioxane	0.9555	0.9295	0.8232	[6]
201	xPt-Cu/SiO2	41.9	Pt	0.48	None	0	SiO2	AE-IWI	518	350	350	180	3	1	80	1,4-dioxane	0.9577	0.9316	0.7978	[6]
202	xPt-Cu/SiO2	41.9	Pt	0.48	None	0	SiO2	AE-IWI	518	350	350	180	3	1	90	1,4-dioxane	0.9601	0.9332	0.7736	[6]
203	xPt-Cu/SiO2	41.9	Pt	0.48	None	0	SiO2	AE-IWI	518	350	350	180	3	1	110	1,4-dioxane	0.9641	0.9381	0.7343	[6]
204	xPt-Cu/SiO2	41.9	Pt	0.48	None	0	SiO2	AE-IWI	518	350	350	180	3	1	120	1,4-dioxane	0.9664	0.9414	0.7229	[6]
205	xPt-Cu/SiO2	41.9	Pt	0.48	None	0	SiO2	AE-IWI	518	350	350	180	3	1	130	1,4-dioxane	0.969	0.945	0.7112	[6]
206	xPt-Cu/SiO2	41.9	Pt	0.48	None	0	SiO2	AE-IWI	518	350	350	180	3	1	150	1,4-dioxane	0.971	0.9482	0.6909	[6]
207	xPt-Cu/SiO2	41.9	Pt	0.48	None	0	SiO2	AE-IWI	518	350	350	180	3	1	160	1,4-dioxane	0.9715	0.9482	0.6827	[6]
208	xPt-Cu/SiO2	41.9	Pt	0.48	None	0	SiO2	AE-IWI	518	350	350	180	3	1	170	1,4-dioxane	0.9718	0.9481	0.6748	[6]
209	Cu/SiO2	41.8	None	0	None	0	SiO2	AE	582	350	350	180	3	1	45	1,4-dioxane	0.9456	0.9207	0.7466	[6]
210	Cu/SiO2	41.8	None	0	None	0	SiO2	AE	582	350	350	180	3	1	50	1,4-dioxane	0.9567	0.9311	0.7873	[6]
211	Cu/SiO2	41.8	None	0	None	0	SiO2	AE	582	350	350	180	3	1	55	1,4-dioxane	0.9682	0.942	0.8259	[6]
212	xPt-Cu/SiO2	41.2	Pt	0.12	None	0	SiO2	AE-IWI	578	350	350	180	3	1	45	1,4-dioxane	0.9157	0.892	0.8124	[6]
213	xPt-Cu/SiO2	41.2	Pt	0.12	None	0	SiO2	AE-IWI	578	350	350	180	3	1	50	1,4-dioxane	0.9406	0.9161	0.8408	[6]
214	xPt-Cu/SiO2	41.2	Pt	0.12	None	0	SiO2	AE-IWI	578	350	350	180	3	1	55	1,4-dioxane	0.9659	0.9405	0.8702	[6]
215	xPt-Cu/SiO2	40	Pt	0.21	None	0	SiO2	AE-IWI	569	350	350	180	3	1	45	1,4-dioxane	0.9477	0.9264	0.8469	[6]
216	xPt-Cu/SiO2	40	Pt	0.21	None	0	SiO2	AE-IWI	569	350	350	180	3	1	50	1,4-dioxane	0.961	0.939	0.8796	[6]
217	xPt-Cu/SiO2	40	Pt	0.21	None	0	SiO2	AE-IWI	569	350	350	180	3	1	55	1,4-dioxane	0.9748	0.9522	0.9146	[6]
218	xPt-Cu/SiO2	41.9	Pt	0.48	None	0	SiO2	AE-IWI	518	350	350	180	3	1	45	1,4-dioxane	0.8989	0.8756	0.7793	[6]
219	xPt-Cu/SiO2	41.9	Pt	0.48	None	0	SiO2	AE-IWI	518	350	350	180	3	1	50	1,4-dioxane	0.9164	0.8923	0.8014	[6]
220	xPt-Cu/SiO2	41.9	Pt	0.48	None	0	SiO2	AE-IWI	518	350	350	180	3	1	55	1,4-dioxane	0.9343	0.9094	0.824	[6]
221	Cu/SiO2-S	24.8	None	0	None	0	SiO2-S	AE	55	450	300	180	3	0.3	120	1,4-dioxane	0.8812	0.8731	0.5596	[7]
222	Cu/SiO2-S	24.8	None	0	None	0	SiO2-S	AE	55	450	300	180	3	0.3	140	1,4-dioxane	0.9783	0.9689	0.6291	[7]
223	Cu/SiO2-S	24.8	None	0	None	0	SiO2-S	AE	55	450	300	180	3	0.3	160	1,4-dioxane	1	0.9899	0.6688	[7]
224	Cu/SiO2-S	24.8	None	0	None	0	SiO2-S	AE	55	450	300	180	3	0.3	180	1,4-dioxane	1	0.9899	0.6507	[7]
225	Cu/SiO2-S	24.8	None	0	None	0	SiO2-S	AE	55	450	300	180	3	0.3	200	1,4-dioxane	1	0.9899	0.6442	[7]
226	Cu/SiO2-F-3	17.8	None	0	None	0	SiO2-F-3	OSHP	112	450	300	180	3	0.3	80	1,4-dioxane	0.8514	0.8444	0.4704	[7]
227	Cu/SiO2-F-3	17.8	None	0	None	0	SiO2-F-3	OSHP	112	450	300	180	3	0.3	100	1,4-dioxane	0.9694	0.9616	0.6458	[7]
228	Cu/SiO2-F-3	17.8	None	0	None	0	SiO2-F-3	OSHP	112	450	300	180	3	0.3	120	1,4-dioxane	0.9851	0.9774	0.6614	[7]
229	Cu/SiO2-F-3	17.8	None	0	None	0	SiO2-F-3	OSHP	112	450	300	180	3	0.3	140	1,4-dioxane	0.9989	0.9923	0.6585	[7]
230	Cu/SiO2-F-3	17.8	None	0	None	0	SiO2-F-3	OSHP	112	450	300	180	3	0.3	160	1,4-dioxane	0.9995	0.9914	0.6335	[7]
231	Cu/SiO2-F-3	17.8	None	0	None	0	SiO2-F-3	OSHP	112	450	300	180	3	0.3	180	1,4-dioxane	0.9995	0.9908	0.6299	[7]
232	Cu/SiO2-F-3	17.8	None	0	None	0	SiO2-F-3	OSHP	112	450	300	180	3	0.3	200	1,4-dioxane	0.9982	0.9889	0.6344	[7]
233	Cu/SiO2-F-3.3	19.1	None	0	None	0	SiO2-F-3.3	OSHP	105	450	300	180	3	0.3	60	1,4-dioxane	0.7848	0.7748	0.4861	[7]
234	Cu/SiO2-F-3.3	19.1	None	0	None	0	SiO2-F-3.3	OSHP	105	450	300	180	3	0.3	80	1,4-dioxane	0.9585	0.9498	0.6839	[7]
235	Cu/SiO2-F-3.3	19.1	None	0	None	0	SiO2-F-3.3	OSHP	105	450	300	180	3	0.3	100	1,4-dioxane	0.9996	0.9909	0.6907	[7]
236	Cu/SiO2-F-3.3	19.1	None	0	None	0	SiO2-F-3.3	OSHP	105	450	300	180	3	0.3	120	1,4-dioxane	0.9996	0.9906	0.677	[7]
237	Cu/SiO2-F-3.3	19.1	None	0	None	0	SiO2-F-3.3	OSHP	105	450	300	180	3	0.3	140	1,4-dioxane	1	0.9912	0.6898	[7]
238	Cu/SiO2-F-3.3	19.1	None	0	None	0	SiO2-F-3.3	OSHP	105	450	300	180	3	0.3	160	1,4-dioxane	0.9995	0.9906	0.6874	[7]
239	Cu/SiO2-F-3.3	19.1	None	0	None	0	SiO2-F-3.3	OSHP	105	450	300	180	3	0.3	180	1,4-dioxane	0.9988	0.9899	0.6717	[7]
240	Cu/SiO2-F-3.3	19.1	None	0	None	0	SiO2-F-3.3	OSHP	105	450	300	180	3	0.3	200	1,4-dioxane	1	0.9919	0.6573	[7]
241	Cu/SiO2-F-3.75	23.3	None	0	None	0	SiO2-F-3.75	OSHP	97	450	300	180	3	0.3	60	1,4-dioxane	0.9791	0.97	0.7291	[7]
242	Cu/SiO2-F-3.75	23.3	None	0	None	0	SiO2-F-3.75	OSHP	97	450	300	180	3	0.3	80	1,4-dioxane	0.9894	0.9802	0.742	[7]
243	Cu/SiO2-F-3.75	23.3	None	0	None	0	SiO2-F-3.75	OSHP	97	450	300	180	3	0.3	100	1,4-dioxane	0.9996	0.9904	0.7199	[7]
244	Cu/SiO2-F-3.75	23.3	None	0	None	0	SiO2-F-3.75	OSHP	97	450	300	180	3	0.3	120	1,4-dioxane	0.999	0.9902	0.7261	[7]
245	Cu/SiO2-F-3.75	23.3	None	0	None	0	SiO2-F-3.75	OSHP	97	450	300	180	3	0.3	140	1,4-dioxane	1	0.9908	0.7349	[7]
246	Cu/SiO2-F-3.75	23.3	None	0	None	0	SiO2-F-3.75	OSHP	97	450	300	180	3	0.3	160	1,4-dioxane	1	0.9915	0.7081	[7]
247	Cu/SiO2-F-3.75	23.3	None	0	None	0	SiO2-F-3.75	OSHP	97	450	300	180	3	0.3	180	1,4-dioxane	0.9995	0.9912	0.71	[7]
248	Cu/SiO2-F-3.75	23.3	None	0	None	0	SiO2-F-3.75	OSHP	97	450	300	180	3	0.3	200	1,4-dioxane	1	0.9914	0.72	[7]
249	Cu/SiO2-S	24.8	None	0	None	0	SiO2-S	AE	55	450	300	180	3	0.3	130	1,4-dioxane	0.9336	0.9249	0.5993	[7]
250	Cu/SiO2-S	24.8	None	0	None	0	SiO2-S	AE	55	450	300	180	3	0.3	150	1,4-dioxane	0.9903	0.9808	0.6529	[7]
251	Cu/SiO2-S	24.8	None	0	None	0	SiO2-S	AE	55	450	300	180	3	0.3	170	1,4-dioxane	1	0.9903	0.6605	[7]
252	Cu/SiO2-S	24.8	None	0	None	0	SiO2-S	AE	55	450	300	180	3	0.3	190	1,4-dioxane	0.9996	0.9896	0.6474	[7]
253	Cu/SiO2-F-3	17.8	None	0	None	0	SiO2-F-3	OSHP	112	450	300	180	3	0.3	90	1,4-dioxane	0.9116	0.9046	0.5623	[7]
254	Cu/SiO2-F-3	17.8	None	0	None	0	SiO2-F-3	OSHP	112	450	300	180	3	0.3	110	1,4-dioxane	0.9778	0.9706	0.654	[7]
255	Cu/SiO2-F-3	17.8	None	0	None	0	SiO2-F-3	OSHP	112	450	300	180	3	0.3	130	1,4-dioxane	0.9928	0.9856	0.6611	[7]
256	Cu/SiO2-F-3	17.8	None	0	None	0	SiO2-F-3	OSHP	112	450	300	180	3	0.3	150	1,4-dioxane	0.9992	0.9921	0.644	[7]
257	Cu/SiO2-F-3	17.8	None	0	None	0	SiO2-F-3	OSHP	112	450	300	180	3	0.3	170	1,4-dioxane	0.9991	0.9908	0.6313	[7]
258	Cu/SiO2-F-3	17.8	None	0	None	0	SiO2-F-3	OSHP	112	450	300	180	3	0.3	190	1,4-dioxane	0.9994	0.9906	0.6305	[7]
259	Cu/SiO2-F-3.3	19.1	None	0	None	0	SiO2-F-3.3	OSHP	105	450	300	180	3	0.3	70	1,4-dioxane	0.8704	0.8612	0.5829	[7]
260	Cu/SiO2-F-3.3	19.1	None	0	None	0	SiO2-F-3.3	OSHP	105	450	300	180	3	0.3	90	1,4-dioxane	0.9798	0.971	0.6897	[7]
261	Cu/SiO2-F-3.3	19.1	None	0	None	0	SiO2-F-3.3	OSHP	105	450	300	180	3	0.3	110	1,4-dioxane	1	0.9916	0.688	[7]
262	Cu/SiO2-F-3.3	19.1	None	0	None	0	SiO2-F-3.3	OSHP	105	450	300	180	3	0.3	130	1,4-dioxane	1	0.9916	0.6861	[7]
263	Cu/SiO2-F-3.3	19.1	None	0	None	0	SiO2-F-3.3	OSHP	105	450	300	180	3	0.3	150	1,4-dioxane	1	0.9906	0.6914	[7]
264	Cu/SiO2-F-3.3	19.1	None	0	None	0	SiO2-F-3.3	OSHP	105	450	300	180	3	0.3	170	1,4-dioxane	1	0.9916	0.6828	[7]
265	Cu/SiO2-F-3.3	19.1	None	0	None	0	SiO2-F-3.3	OSHP	105	450	300	180	3	0.3	190	1,4-dioxane	0.9992	0.9916	0.664	[7]
266	Cu/SiO2-F-3.75	23.3	None	0	None	0	SiO2-F-3.75	OSHP	97	450	300	180	3	0.3	70	1,4-dioxane	0.9849	0.976	0.7414	[7]
267	Cu/SiO2-F-3.75	23.3	None	0	None	0	SiO2-F-3.75	OSHP	97	450	300	180	3	0.3	90	1,4-dioxane	0.9951	0.9858	0.736	[7]
268	Cu/SiO2-F-3.75	23.3	None	0	None	0	SiO2-F-3.75	OSHP	97	450	300	180	3	0.3	110	1,4-dioxane	1	0.9919	0.7269	[7]
269	Cu/SiO2-F-3.75	23.3	None	0	None	0	SiO2-F-3.75	OSHP	97	450	300	180	3	0.3	130	1,4-dioxane	1	0.9914	0.7318	[7]
270	Cu/SiO2-F-3.75	23.3	None	0	None	0	SiO2-F-3.75	OSHP	97	450	300	180	3	0.3	150	1,4-dioxane	1	0.9905	0.7199	[7]
271	Cu/SiO2-F-3.75	23.3	None	0	None	0	SiO2-F-3.75	OSHP	97	450	300	180	3	0.3	170	1,4-dioxane	0.9999	0.9903	0.7077	[7]
272	Cu/SiO2-F-3.75	23.3	None	0	None	0	SiO2-F-3.75	OSHP	97	450	300	180	3	0.3	190	1,4-dioxane	0.9999	0.9906	0.7139	[7]
273	Cu/MCM-41	4.92	None	0	None	0	MCM-41	DP	386.97	400	300	180	3	0.5	200	1,4-dioxane	0.8766	0.8331	0.5288	[8]
274	Cu/MCM-41	4.92	None	0	None	0	MCM-41	DP	386.97	400	300	180	3	0.75	200	1,4-dioxane	0.5431	0.5215	0.3067	[8]
275	Cu/MCM-41	4.92	None	0	None	0	MCM-41	DP	386.97	400	300	180	3	1	200	1,4-dioxane	0.3397	0.3253	0.175	[8]
276	Cu/MCM-41	4.92	None	0	None	0	MCM-41	DP	386.97	400	300	180	3	1.25	200	1,4-dioxane	0.2515	0.2408	0.1339	[8]
277	Cu/MCM-41	8.54	None	0	None	0	MCM-41	DP	364.26	400	300	180	3	0.5	200	1,4-dioxane	0.9092	0.8331	0.5855	[8]
278	Cu/MCM-41	8.54	None	0	None	0	MCM-41	DP	364.26	400	300	180	3	0.75	200	1,4-dioxane	0.6488	0.6071	0.3284	[8]
279	Cu/MCM-41	8.54	None	0	None	0	MCM-41	DP	364.26	400	300	180	3	1	200	1,4-dioxane	0.4088	0.3898	0.1944	[8]
280	Cu/MCM-41	8.54	None	0	None	0	MCM-41	DP	364.26	400	300	180	3	1.25	200	1,4-dioxane	0.28	0.2669	0.1339	[8]
281	Cu/MCM-41	27.3	None	0	None	0	MCM-41	DP	189.61	400	300	180	3	0.5	200	1,4-dioxane	0.9919	0.9708	0.5988	[8]
282	Cu/MCM-41	27.3	None	0	None	0	MCM-41	DP	189.61	400	300	180	3	0.75	200	1,4-dioxane	0.9824	0.9645	0.6059	[8]
283	Cu/MCM-41	27.3	None	0	None	0	MCM-41	DP	189.61	400	300	180	3	1	200	1,4-dioxane	0.9607	0.9446	0.5962	[8]
284	Cu/MCM-41	27.3	None	0	None	0	MCM-41	DP	189.61	400	300	180	3	1.25	200	1,4-dioxane	0.8603	0.8402	0.5321	[8]
285	Cu/MCM-41	27.3	None	0	None	0	MCM-41	DP	189.61	400	300	180	3	1.5	200	1,4-dioxane	0.7776	0.7694	0.4608	[8]
286	Cu/MCM-41	27.3	None	0	None	0	MCM-41	DP	189.61	400	300	180	3	1.75	200	1,4-dioxane	0.6936	0.6824	0.3992	[8]
287	Cu/MCM-41	27.3	None	0	None	0	MCM-41	DP	189.61	400	300	180	3	2	200	1,4-dioxane	0.6217	0.614	0.3496	[8]
288	Cu/MCM-41	33.3	None	0	None	0	MCM-41	DP	159.41	400	300	180	3	0.5	200	1,4-dioxane	0.9905	0.9671	0.6893	[8]
289	Cu/MCM-41	33.3	None	0	None	0	MCM-41	DP	159.41	400	300	180	3	0.75	200	1,4-dioxane	0.9783	0.962	0.7133	[8]
290	Cu/MCM-41	33.3	None	0	None	0	MCM-41	DP	159.41	400	300	180	3	1	200	1,4-dioxane	0.9424	0.9272	0.7035	[8]
291	Cu/MCM-41	33.3	None	0	None	0	MCM-41	DP	159.41	400	300	180	3	1.25	200	1,4-dioxane	0.9078	0.8936	0.6769	[8]
292	Cu/MCM-41	33.3	None	0	None	0	MCM-41	DP	159.41	400	300	180	3	1.5	200	1,4-dioxane	0.8698	0.8587	0.6539	[8]
293	Cu/MCM-41	33.3	None	0	None	0	MCM-41	DP	159.41	400	300	180	3	1.75	200	1,4-dioxane	0.8156	0.8034	0.6164	[8]
294	Cu/MCM-41	33.3	None	0	None	0	MCM-41	DP	159.41	400	300	180	3	2	200	1,4-dioxane	0.7125	0.704	0.5439	[8]
295	Cu/MCM-41	38.1	None	0	None	0	MCM-41	DP	167.68	400	300	180	3	0.5	200	1,4-dioxane	0.9824	0.9652	0.6482	[8]
296	Cu/MCM-41	38.1	None	0	None	0	MCM-41	DP	167.68	400	300	180	3	0.75	200	1,4-dioxane	0.9498	0.9372	0.6542	[8]
297	Cu/MCM-41	38.1	None	0	None	0	MCM-41	DP	167.68	400	300	180	3	1	200	1,4-dioxane	0.8983	0.8862	0.6336	[8]
298	Cu/MCM-41	38.1	None	0	None	0	MCM-41	DP	167.68	400	300	180	3	1.25	200	1,4-dioxane	0.8644	0.8526	0.6009	[8]
299	Cu/MCM-41	38.1	None	0	None	0	MCM-41	DP	167.68	400	300	180	3	1.5	200	1,4-dioxane	0.7993	0.7905	0.5477	[8]
300	Cu/MCM-41	38.1	None	0	None	0	MCM-41	DP	167.68	400	300	180	3	1.75	200	1,4-dioxane	0.7478	0.7395	0.4963	[8]
301	Cu/MCM-41	38.1	None	0	None	0	MCM-41	DP	167.68	400	300	180	3	2	200	1,4-dioxane	0.6976	0.6928	0.4896	[8]
302	Cu/MCM-41	40.6	None	0	None	0	MCM-41	DP	180.61	400	300	180	3	0.5	200	1,4-dioxane	0.9973	0.9553	0.6893	[8]
303	Cu/MCM-41	40.6	None	0	None	0	MCM-41	DP	180.61	400	300	180	3	0.75	200	1,4-dioxane	0.9905	0.967	0.7067	[8]
304	Cu/MCM-41	40.6	None	0	None	0	MCM-41	DP	180.61	400	300	180	3	1	200	1,4-dioxane	0.9769	0.957	0.677	[8]
305	Cu/MCM-41	40.6	None	0	None	0	MCM-41	DP	180.61	400	300	180	3	1.25	200	1,4-dioxane	0.8915	0.8706	0.6214	[8]
306	Cu/MCM-41	40.6	None	0	None	0	MCM-41	DP	180.61	400	300	180	3	1.5	200	1,4-dioxane	0.8169	0.8047	0.561	[8]
307	Cu/MCM-41	40.6	None	0	None	0	MCM-41	DP	180.61	400	300	180	3	1.75	200	1,4-dioxane	0.7383	0.7265	0.477	[8]
308	Cu/MCM-41	40.6	None	0	None	0	MCM-41	DP	180.61	400	300	180	3	2	200	1,4-dioxane	0.6617	0.6494	0.4353	[8]
309	Cu/MCM-41	4.92	None	0	None	0	MCM-41	DP	386.97	400	300	180	3	0.62	200	1,4-dioxane	0.7168	0.6824	0.4227	[8]
310	Cu/MCM-41	4.92	None	0	None	0	MCM-41	DP	386.97	400	300	180	3	0.87	200	1,4-dioxane	0.445	0.4238	0.2447	[8]
311	Cu/MCM-41	4.92	None	0	None	0	MCM-41	DP	386.97	400	300	180	3	1.12	200	1,4-dioxane	0.2955	0.2815	0.1526	[8]
312	Cu/MCM-41	8.54	None	0	None	0	MCM-41	DP	364.26	400	300	180	3	0.62	200	1,4-dioxane	0.784	0.7247	0.4657	[8]
313	Cu/MCM-41	8.54	None	0	None	0	MCM-41	DP	364.26	400	300	180	3	0.87	200	1,4-dioxane	0.5342	0.4996	0.2577	[8]
314	Cu/MCM-41	8.54	None	0	None	0	MCM-41	DP	364.26	400	300	180	3	1.12	200	1,4-dioxane	0.3493	0.3284	0.1612	[8]
315	Cu/MCM-41	27.3	None	0	None	0	MCM-41	DP	189.61	400	300	180	3	0.61	200	1,4-dioxane	0.9901	0.9666	0.604	[8]
316	Cu/MCM-41	27.3	None	0	None	0	MCM-41	DP	189.61	400	300	180	3	0.87	200	1,4-dioxane	0.9724	0.9519	0.6021	[8]
317	Cu/MCM-41	27.3	None	0	None	0	MCM-41	DP	189.61	400	300	180	3	1.12	200	1,4-dioxane	0.9122	0.8882	0.5629	[8]
318	Cu/MCM-41	27.3	None	0	None	0	MCM-41	DP	189.61	400	300	180	3	1.36	200	1,4-dioxane	0.8221	0.8059	0.4942	[8]
319	Cu/MCM-41	27.3	None	0	None	0	MCM-41	DP	189.61	400	300	180	3	1.62	200	1,4-dioxane	0.7383	0.7239	0.4282	[8]
320	Cu/MCM-41	27.3	None	0	None	0	MCM-41	DP	189.61	400	300	180	3	1.87	200	1,4-dioxane	0.6573	0.645	0.3732	[8]
321	Cu/MCM-41	33.3	None	0	None	0	MCM-41	DP	159.41	400	300	180	3	0.62	200	1,4-dioxane	0.985	0.9601	0.7032	[8]
322	Cu/MCM-41	33.3	None	0	None	0	MCM-41	DP	159.41	400	300	180	3	0.87	200	1,4-dioxane	0.9606	0.9426	0.7106	[8]
323	Cu/MCM-41	33.3	None	0	None	0	MCM-41	DP	159.41	400	300	180	3	1.13	200	1,4-dioxane	0.9243	0.9083	0.6924	[8]
324	Cu/MCM-41	33.3	None	0	None	0	MCM-41	DP	159.41	400	300	180	3	1.37	200	1,4-dioxane	0.8883	0.8753	0.668	[8]
325	Cu/MCM-41	33.3	None	0	None	0	MCM-41	DP	159.41	400	300	180	3	1.63	200	1,4-dioxane	0.8431	0.8289	0.6363	[8]
326	Cu/MCM-41	33.3	None	0	None	0	MCM-41	DP	159.41	400	300	180	3	1.88	200	1,4-dioxane	0.7632	0.7549	0.5808	[8]
327	Cu/MCM-41	38.1	None	0	None	0	MCM-41	DP	167.68	400	300	180	3	0.62	200	1,4-dioxane	0.9676	0.949	0.6543	[8]
328	Cu/MCM-41	38.1	None	0	None	0	MCM-41	DP	167.68	400	300	180	3	0.87	200	1,4-dioxane	0.9264	0.9116	0.6467	[8]
329	Cu/MCM-41	38.1	None	0	None	0	MCM-41	DP	167.68	400	300	180	3	1.13	200	1,4-dioxane	0.8815	0.8668	0.6205	[8]
330	Cu/MCM-41	38.1	None	0	None	0	MCM-41	DP	167.68	400	300	180	3	1.37	200	1,4-dioxane	0.8321	0.8204	0.5778	[8]
331	Cu/MCM-41	38.1	None	0	None	0	MCM-41	DP	167.68	400	300	180	3	1.62	200	1,4-dioxane	0.7743	0.7642	0.5231	[8]
332	Cu/MCM-41	38.1	None	0	None	0	MCM-41	DP	167.68	400	300	180	3	1.88	200	1,4-dioxane	0.7224	0.7141	0.4914	[8]
333	Cu/MCM-41	40.6	None	0	None	0	MCM-41	DP	180.61	400	300	180	3	0.62	200	1,4-dioxane	0.995	0.9581	0.7017	[8]
334	Cu/MCM-41	40.6	None	0	None	0	MCM-41	DP	180.61	400	300	180	3	0.87	200	1,4-dioxane	0.9834	0.9586	0.6945	[8]
335	Cu/MCM-41	40.6	None	0	None	0	MCM-41	DP	180.61	400	300	180	3	1.13	200	1,4-dioxane	0.9321	0.9116	0.6511	[8]
336	Cu/MCM-41	40.6	None	0	None	0	MCM-41	DP	180.61	400	300	180	3	1.38	200	1,4-dioxane	0.8546	0.8361	0.5936	[8]
337	Cu/MCM-41	40.6	None	0	None	0	MCM-41	DP	180.61	400	300	180	3	1.63	200	1,4-dioxane	0.7778	0.7621	0.5216	[8]
338	Cu/MCM-41	40.6	None	0	None	0	MCM-41	DP	180.61	400	300	180	3	1.88	200	1,4-dioxane	0.6979	0.6847	0.4558	[8]
339	Cu/SiO2	32.2	None	0	None	0	SiO2	AE	534	400	350	170	3	0.6	40	1,4-dioxane	0.8366	0.8222	0.6195	[9]
340	Cu/SiO2	32.2	None	0	None	0	SiO2	AE	534	400	350	170	3	0.6	60	1,4-dioxane	0.8821	0.8647	0.6554	[9]
341	Cu/SiO2	32.2	None	0	None	0	SiO2	AE	534	400	350	170	3	0.6	80	1,4-dioxane	0.9427	0.9257	0.6893	[9]
342	Cu/SiO2	32.2	None	0	None	0	SiO2	AE	534	400	350	170	3	0.6	100	1,4-dioxane	0.9907	0.969	0.7893	[9]
343	Cu/SiO2	32.2	None	0	None	0	SiO2	AE	534	400	350	170	3	0.6	120	1,4-dioxane	0.9949	0.9774	0.7135	[9]
344	Cu/SiO2	32.2	None	0	None	0	SiO2	AE	534	400	350	170	3	0.6	140	1,4-dioxane	0.9962	0.9731	0.7195	[9]
345	Ni-Cu/SiO2-AE	30.3	Ni	0.23	None	0	SiO2	AE	538	400	350	170	3	0.6	40	1,4-dioxane	0.9503	0.933	0.6817	[9]
346	Ni-Cu/SiO2-AE	30.3	Ni	0.23	None	0	SiO2	AE	538	400	350	170	3	0.6	60	1,4-dioxane	0.9933	0.9665	0.8969	[9]
347	Ni-Cu/SiO2-AE	30.3	Ni	0.23	None	0	SiO2	AE	538	400	350	170	3	0.6	80	1,4-dioxane	0.9975	0.9757	0.8612	[9]
348	Ni-Cu/SiO2-AE	30.3	Ni	0.23	None	0	SiO2	AE	538	400	350	170	3	0.6	100	1,4-dioxane	0.9975	0.9731	0.747	[9]
349	Ni-Cu/SiO2-AE	30.3	Ni	0.23	None	0	SiO2	AE	538	400	350	170	3	0.6	120	1,4-dioxane	0.9975	0.9757	0.7392	[9]
350	Ni-Cu/SiO2-AE	30.3	Ni	0.23	None	0	SiO2	AE	538	400	350	170	3	0.6	140	1,4-dioxane	0.9975	0.9731	0.683	[9]
351	Ni-Cu/SiO2-IE	30.9	Ni	0.23	None	0	SiO2	IE	529	400	350	170	3	0.6	40	1,4-dioxane	0.9133	0.9	0.5418	[9]
352	Ni-Cu/SiO2-IE	30.9	Ni	0.23	None	0	SiO2	IE	529	400	350	170	3	0.6	60	1,4-dioxane	0.9587	0.9413	0.6208	[9]
353	Ni-Cu/SiO2-IE	30.9	Ni	0.23	None	0	SiO2	IE	529	400	350	170	3	0.6	80	1,4-dioxane	0.9747	0.9559	0.6243	[9]
354	Ni-Cu/SiO2-IE	30.9	Ni	0.23	None	0	SiO2	IE	529	400	350	170	3	0.6	100	1,4-dioxane	0.9924	0.974	0.6295	[9]
355	Ni-Cu/SiO2-IE	30.9	Ni	0.23	None	0	SiO2	IE	529	400	350	170	3	0.6	120	1,4-dioxane	0.9941	0.9723	0.6655	[9]
356	Ni-Cu/SiO2-IE	30.9	Ni	0.23	None	0	SiO2	IE	529	400	350	170	3	0.6	140	1,4-dioxane	0.9958	0.9689	0.6422	[9]
357	Ni-Cu/SiO2-IM	29.7	Ni	0.21	None	0	SiO2	IM	494	400	350	170	3	0.6	40	1,4-dioxane	0.9267	0.909	0.6906	[9]
358	Ni-Cu/SiO2-IM	29.7	Ni	0.21	None	0	SiO2	IM	494	400	350	170	3	0.6	60	1,4-dioxane	0.9933	0.9719	0.6937	[9]
359	Ni-Cu/SiO2-IM	29.7	Ni	0.21	None	0	SiO2	IM	494	400	350	170	3	0.6	80	1,4-dioxane	0.9975	0.9714	0.6524	[9]
360	Ni-Cu/SiO2-IM	29.7	Ni	0.21	None	0	SiO2	IM	494	400	350	170	3	0.6	100	1,4-dioxane	0.9983	0.9777	0.63	[9]
361	Ni-Cu/SiO2-IM	29.7	Ni	0.21	None	0	SiO2	IM	494	400	350	170	3	0.6	120	1,4-dioxane	0.9975	0.9761	0.5979	[9]
362	Ni-Cu/SiO2-IM	29.7	Ni	0.21	None	0	SiO2	IM	494	400	350	170	3	0.6	140	1,4-dioxane	0.9966	0.9701	0.607	[9]
363	Ni-Cu/SiO2-AE	29.5	Ni	0.09	None	0	SiO2	AE	614	400	350	170	3	0.6	40	1,4-dioxane	0.9118	0.8927	0.576	[9]
364	Ni-Cu/SiO2-AE	29.5	Ni	0.09	None	0	SiO2	AE	614	400	350	170	3	0.6	60	1,4-dioxane	0.9954	0.9669	0.8987	[9]
365	Ni-Cu/SiO2-AE	29.5	Ni	0.09	None	0	SiO2	AE	614	400	350	170	3	0.6	80	1,4-dioxane	0.9984	0.9699	0.9279	[9]
366	Ni-Cu/SiO2-AE	29.5	Ni	0.09	None	0	SiO2	AE	614	400	350	170	3	0.6	100	1,4-dioxane	0.999	0.9693	0.7866	[9]
367	Ni-Cu/SiO2-AE	29.5	Ni	0.09	None	0	SiO2	AE	614	400	350	170	3	0.6	120	1,4-dioxane	0.9973	0.9708	0.7565	[9]
368	Ni-Cu/SiO2-AE	29.5	Ni	0.09	None	0	SiO2	AE	614	400	350	170	3	0.6	140	1,4-dioxane	0.9957	0.9663	0.7664	[9]
369	Ni-Cu/SiO2-AE	30.8	Ni	0.42	None	0	SiO2	AE	551	400	350	170	3	0.6	40	1,4-dioxane	0.9109	0.8903	0.6419	[9]
370	Ni-Cu/SiO2-AE	30.8	Ni	0.42	None	0	SiO2	AE	551	400	350	170	3	0.6	60	1,4-dioxane	0.9877	0.9648	0.7729	[9]
371	Ni-Cu/SiO2-AE	30.8	Ni	0.42	None	0	SiO2	AE	551	400	350	170	3	0.6	80	1,4-dioxane	0.9963	0.974	0.746	[9]
372	Ni-Cu/SiO2-AE	30.8	Ni	0.42	None	0	SiO2	AE	551	400	350	170	3	0.6	100	1,4-dioxane	0.9973	0.9733	0.726	[9]
373	Ni-Cu/SiO2-AE	30.8	Ni	0.42	None	0	SiO2	AE	551	400	350	170	3	0.6	120	1,4-dioxane	0.9965	0.9709	0.7014	[9]
374	Ni-Cu/SiO2-AE	30.8	Ni	0.42	None	0	SiO2	AE	551	400	350	170	3	0.6	140	1,4-dioxane	0.994	0.9591	0.6519	[9]
375	Ni-Cu/SiO2-AE	29.8	Ni	1.61	None	0	SiO2	AE	551	400	350	170	3	0.6	40	1,4-dioxane	0.5625	0.5491	0.2515	[9]

376	Ni-Cu/SiO2-AE	29.8	Ni	1.61	None	0	SiO2	AE	551	400	350	170	3	0.6	60	1,4-dioxane	0.7266	0.7103	0.3774	[9]
377	Ni-Cu/SiO2-AE	29.8	Ni	1.61	None	0	SiO2	AE	551	400	350	170	3	0.6	80	1,4-dioxane	0.8353	0.8163	0.466	[9]
378	Ni-Cu/SiO2-AE	29.8	Ni	1.61	None	0	SiO2	AE	551	400	350	170	3	0.6	100	1,4-dioxane	0.9623	0.9432	0.5353	[9]
379	Ni-Cu/SiO2-AE	29.8	Ni	1.61	None	0	SiO2	AE	551	400	350	170	3	0.6	120	1,4-dioxane	0.9875	0.9668	0.5429	[9]
380	Ni-Cu/SiO2-AE	29.8	Ni	1.61	None	0	SiO2	AE	551	400	350	170	3	0.6	140	1,4-dioxane	0.9915	0.9669	0.6136	[9]
381	Cu/SiO2	32.2	None	0	None	0	SiO2	AE	534	400	350	170	3	0.6	50	1,4-dioxane	0.858	0.8411	0.6373	[9]
382	Cu/SiO2	32.2	None	0	None	0	SiO2	AE	534	400	350	170	3	0.6	70	1,4-dioxane	0.9118	0.8941	0.6723	[9]
383	Cu/SiO2	32.2	None	0	None	0	SiO2	AE	534	400	350	170	3	0.6	90	1,4-dioxane	0.9661	0.9459	0.7395	[9]
384	Cu/SiO2	32.2	None	0	None	0	SiO2	AE	534	400	350	170	3	0.6	110	1,4-dioxane	0.9919	0.9711	0.7532	[9]
385	Cu/SiO2	32.2	None	0	None	0	SiO2	AE	534	400	350	170	3	0.6	130	1,4-dioxane	0.9955	0.9754	0.7172	[9]
386	Ni-Cu/SiO2-AE	30.3	Ni	0.23	None	0	SiO2	AE	538	400	350	170	3	0.6	50	1,4-dioxane	0.9701	0.9487	0.787	[9]
387	Ni-Cu/SiO2-AE	30.3	Ni	0.23	None	0	SiO2	AE	538	400	350	170	3	0.6	70	1,4-dioxane	0.9937	0.9687	0.8799	[9]
388	Ni-Cu/SiO2-AE	30.3	Ni	0.23	None	0	SiO2	AE	538	400	350	170	3	0.6	90	1,4-dioxane	0.9968	0.9729	0.8049	[9]
389	Ni-Cu/SiO2-AE	30.3	Ni	0.23	None	0	SiO2	AE	538	400	350	170	3	0.6	110	1,4-dioxane	0.998	0.9742	0.7426	[9]
390	Ni-Cu/SiO2-AE	30.3	Ni	0.23	None	0	SiO2	AE	538	400	350	170	3	0.6	130	1,4-dioxane	0.9966	0.973	0.7079	[9]
391	Ni-Cu/SiO2-IE	30.9	Ni	0.23	None	0	SiO2	IE	529	400	350	170	3	0.6	50	1,4-dioxane	0.9336	0.9178	0.5794	[9]
392	Ni-Cu/SiO2-IE	30.9	Ni	0.23	None	0	SiO2	IE	529	400	350	170	3	0.6	70	1,4-dioxane	0.966	0.9475	0.6221	[9]
393	Ni-Cu/SiO2-IE	30.9	Ni	0.23	None	0	SiO2	IE	529	400	350	170	3	0.6	90	1,4-dioxane	0.9832	0.9649	0.6268	[9]
394	Ni-Cu/SiO2-IE	30.9	Ni	0.23	None	0	SiO2	IE	529	400	350	170	3	0.6	110	1,4-dioxane	0.9919	0.9714	0.647	[9]
395	Ni-Cu/SiO2-IE	30.9	Ni	0.23	None	0	SiO2	IE	529	400	350	170	3	0.6	130	1,4-dioxane	0.9922	0.9678	0.6524	[9]
396	Ni-Cu/SiO2-IM	29.7	Ni	0.21	None	0	SiO2	IM	494	400	350	170	3	0.6	50	1,4-dioxane	0.9588	0.939	0.6952	[9]
397	Ni-Cu/SiO2-IM	29.7	Ni	0.21	None	0	SiO2	IM	494	400	350	170	3	0.6	70	1,4-dioxane	0.9948	0.9706	0.675	[9]
398	Ni-Cu/SiO2-IM	29.7	Ni	0.21	None	0	SiO2	IM	494	400	350	170	3	0.6	90	1,4-dioxane	0.9968	0.9731	0.643	[9]
399	Ni-Cu/SiO2-IM	29.7	Ni	0.21	None	0	SiO2	IM	494	400	350	170	3	0.6	110	1,4-dioxane	0.9982	0.9768	0.6152	[9]
400	Ni-Cu/SiO2-IM	29.7	Ni	0.21	None	0	SiO2	IM	494	400	350	170	3	0.6	130	1,4-dioxane	0.9972	0.9732	0.6041	[9]
401	Ni-Cu/SiO2-AE	29.5	Ni	0.09	None	0	SiO2	AE	614	400	350	170	3	0.6	50	1,4-dioxane	0.9501	0.9273	0.7285	[9]
402	Ni-Cu/SiO2-AE	29.5	Ni	0.09	None	0	SiO2	AE	614	400	350	170	3	0.6	70	1,4-dioxane	0.9967	0.9694	0.9136	[9]
403	Ni-Cu/SiO2-AE	29.5	Ni	0.09	None	0	SiO2	AE	614	400	350	170	3	0.6	90	1,4-dioxane	0.9975	0.9694	0.8559	[9]
404	Ni-Cu/SiO2-AE	29.5	Ni	0.09	None	0	SiO2	AE	614	400	350	170	3	0.6	110	1,4-dioxane	0.9977	0.9698	0.7723	[9]
405	Ni-Cu/SiO2-AE	29.5	Ni	0.09	None	0	SiO2	AE	614	400	350	170	3	0.6	130	1,4-dioxane	0.9968	0.9699	0.7614	[9]
406	Ni-Cu/SiO2-AE	30.8	Ni	0.42	None	0	SiO2	AE	551	400	350	170	3	0.6	50	1,4-dioxane	0.9468	0.9263	0.7005	[9]
407	Ni-Cu/SiO2-AE	30.8	Ni	0.42	None	0	SiO2	AE	551	400	350	170	3	0.6	70	1,4-dioxane	0.9898	0.9676	0.7563	[9]
408	Ni-Cu/SiO2-AE	30.8	Ni	0.42	None	0	SiO2	AE	551	400	350	170	3	0.6	90	1,4-dioxane	0.9955	0.9733	0.7333	[9]
409	Ni-Cu/SiO2-AE	30.8	Ni	0.42	None	0	SiO2	AE	551	400	350	170	3	0.6	110	1,4-dioxane	0.9971	0.973	0.7151	[9]
410	Ni-Cu/SiO2-AE	30.8	Ni	0.42	None	0	SiO2	AE	551	400	350	170	3	0.6	130	1,4-dioxane	0.9949	0.9647	0.677	[9]
411	Ni-Cu/SiO2-AE	29.8	Ni	1.61	None	0	SiO2	AE	551	400	350	170	3	0.6	50	1,4-dioxane	0.6445	0.6302	0.3112	[9]
412	Ni-Cu/SiO2-AE	29.8	Ni	1.61	None	0	SiO2	AE	551	400	350	170	3	0.6	70	1,4-dioxane	0.7831	0.766	0.4222	[9]
413	Ni-Cu/SiO2-AE	29.8	Ni	1.61	None	0	SiO2	AE	551	400	350	170	3	0.6	90	1,4-dioxane	0.9003	0.882	0.5031	[9]
414	Ni-Cu/SiO2-AE	29.8	Ni	1.61	None	0	SiO2	AE	551	400	350	170	3	0.6	110	1,4-dioxane	0.9733	0.9544	0.5374	[9]
415	Ni-Cu/SiO2-AE	29.8	Ni	1.61	None	0	SiO2	AE	551	400	350	170	3	0.6	130	1,4-dioxane	0.9886	0.9668	0.5778	[9]
416	Cu/SiO2	60	None	0	None	0	SiO2	DP	72	450	350	180	2	0.13	100	1,4-dioxane	0.9853	0.967	0.2953	[10]
417	Cux-Mg1/SiO2	56.9	Mg	3.1	None	0	SiO2	DP	56	450	350	180	2	0.13	100	1,4-dioxane	0.9951	0.9892	0.3294	[10]
418	Cux-Mg1/SiO2	56.7	Mg	3.3	None	0	SiO2	DP	56	450	350	180	3	0.13	100	1,4-dioxane	0.9889	0.9779	0.3472	[10]
419	Cux-Mg1/SiO2	56.9	Mg	3.1	None	0	SiO2	DP	56	450	350	180	3	0.13	100	1,4-dioxane	0.993	0.984	0.4226	[10]
420	Cux-Mg1/SiO2	57.3	Mg	2.7	None	0	SiO2	DP	56	450	350	180	3	0.13	100	1,4-dioxane	0.993	0.986	0.4805	[10]
421	Cux-Mg1/SiO2	57.6	Mg	2.4	None	0	SiO2	DP	56	450	350	180	3	0.13	100	1,4-dioxane	0.995	0.9859	0.3333	[10]
422	a8-Mg1-Zrz/SiO	53.3	Mg	2.5	Zr	4.2	SiO2	DP	82	450	350	180	3	0.13	100	1,4-dioxane	0.992	0.986	0.499	[10]
423	a8-Mg1-Zrz/SiO	53	Mg	2.5	Zr	4.5	SiO2	DP	82	450	350	180	3	0.13	100	1,4-dioxane	0.9901	0.9803	0.6476	[10]
424	a8-Mg1-Zrz/SiO	52.9	Mg	2.5	Zr	4.6	SiO2	DP	82	450	350	180	3	0.13	100	1,4-dioxane	0.992	0.986	0.5128	[10]
425	a8-Mg1-Zrz/SiO	52.8	Mg	2.5	Zr	4.7	SiO2	DP	82	450	350	180	3	0.13	100	1,4-dioxane	0.992	0.986	0.4773	[10]
426	Cu/SiO2	60	None	0	None	0	SiO2	DP	72	450	350	180	3	0.13	100	1,4-dioxane	0.9928	0.982	0.4483	[10]
427	a8-Mg1-Zrz/SiO	53	Mg	2.5	Zr	4.5	SiO2	DP	82	350	350	180	3	0.13	100	1,4-dioxane	0.9921	0.9824	0.2988	[10]
428	a8-Mg1-Zrz/SiO	53	Mg	2.5	Zr	4.5	SiO2	DP	82	400	350	180	3	0.13	100	1,4-dioxane	0.9902	0.9785	0.386	[10]
429	a8-Mg1-Zrz/SiO	53	Mg	2.5	Zr	4.5	SiO2	DP	82	500	350	180	3	0.13	100	1,4-dioxane	0.9882	0.9785	0.3949	[10]
430	a8-Mg1-Zrz/SiO	53	Mg	2.5	Zr	4.5	SiO2	DP	82	550	350	180	3	0.13	100	1,4-dioxane	0.9902	0.9785	0.3762	[10]
431	a8-Mg1-Zrz/SiO	53	Mg	2.5	Zr	4.5	SiO2	DP	82	450	300	180	3	0.13	100	1,4-dioxane	0.9897	0.9806	0.2479	[10]
432	a8-Mg1-Zrz/SiO	53	Mg	2.5	Zr	4.5	SiO2	DP	82	450	400	180	3	0.13	100	1,4-dioxane	0.9897	0.9795	0.2002	[10]
433	a8-Mg1-Zrz/SiO	53	Mg	2.5	Zr	4.5	SiO2	DP	82	450	450	180	3	0.13	100	1,4-dioxane	0.9918	0.9837	0.1792	[10]
434	a8-Mg1-Zrz/SiO	53	Mg	2.5	Zr	4.5	SiO2	DP	82	450	350	160	3	0.13	100	1,4-dioxane	0.9921	0.6734	0.2473	[10]
435	a8-Mg1-Zrz/SiO	53	Mg	2.5	Zr	4.5	SiO2	DP	82	450	350	190	3	0.13	100	1,4-dioxane	0.9901	0.9784	0.436	[10]
436	a8-Mg1-Zrz/SiO	53	Mg	2.5	Zr	4.5	SiO2	DP	82	450	350	200	3	0.13	100	1,4-dioxane	0.9901	0.8028	0.4272	[10]
437	a8-Mg1-Zrz/SiO	53	Mg	2.5	Zr	4.5	SiO2	DP	82	450	350	180	2	0.13	100	1,4-dioxane	0.992	0.9821	0.4781	[10]
438	a8-Mg1-Zrz/SiO	53	Mg	2.5	Zr	4.5	SiO2	DP	82	450	350	180	4	0.13	100	1,4-dioxane	0.99	0.9801	0.79	[10]
439	a8-Mg1-Zrz/SiO	53	Mg	2.5	Zr	4.5	SiO2	DP	82	450	350	180	4	0.13	67.5	1,4-dioxane	0.7538	0.7463	0.3765	[10]
440	a8-Mg1-Zrz/SiO	53	Mg	2.5	Zr	4.5	SiO2	DP	82	450	350	180	4	0.13	135	1,4-dioxane	0.8999	0.8909	0.4964	[10]
441	a8-Mg1-Zrz/SiO	53	Mg	2.5	Zr	4.5	SiO2	DP	82	450	350	180	4	0.065	100	1,4-dioxane	0.988	0.9781	0.3095	[10]
442	a8-Mg1-Zrz/SiO	53	Mg	2.5	Zr	4.5	SiO2	DP	82	450	350	180	4	0.195	100	1,4-dioxane	0.992	0.9821	0.5379	[10]
443	a8-Mg1-Zrz/SiO	53	Mg	2.5	Zr	4.5	SiO2	DP	82	450	350	180	4	0.26	100	1,4-dioxane	0.992	0.9821	0.4881	[10]
444	Cu-MgO/SBA-15	18.3	MgO	0	None	0	SBA-15	AE	474	400	300	180	3	0.5	200	1,4-dioxane	0.994	0.9585	0.6682	[10]
445	Cu-MgO/SBA-15	19.4	MgO	0.5	None	0	SBA-15	AE	441.4	400	300	180	3	0.5	200	1,4-dioxane	1	0.9672	0.7211	[11]
446	Cu-MgO/SBA-15	18.4	MgO	0.9	None	0	SBA-15	AE	412.7	400	300	180	3	0.5	200	1,4-dioxane	0.9974	0.9711	0.7102	[11]
447	Cu-MgO/SBA-15	17.5	MgO	1.5	None	0	SBA-15	AE	412.7	400	300	180	3	0.5	200	1,4-dioxane	0.9953	0.9788	0.6475	[11]
448	Cu-MgO/SBA-15	17.3	MgO	2.1	None	0	SBA-15	AE	422.2	400	300	180	3	0.5	200	1,4-dioxane	0.9795	0.9794	0.5104	[11]

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