

Supporting Information (SI)

Toward smart CO₂ capture by predicting the synthesis of Metal Organic Frameworks using Large Language Models

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1. Section S1. Procedure

Large Language Model. The Large Language Model (LLM) used in this study is ChatGPT4o-mini¹, developed and maintained by OpenAI. GPT-4o-mini is a self-adaptive language model that uses a transformer architecture. All tasks in this study can be run in the default mode using GPT-4o-mini as the base model.

Figure S-1 shows a flowchart of the data mining process that uses ChatGPT4o-mini¹ to extract data on metal organic framework (MOF) synthesis conditions as well as significant CO₂ capture parameters from a number of published research publications. The first step in the data extraction procedure was to separate the articles into separate PDF files and analyze each paragraph separately. We performed data mining on the documents using the Open AI API to coordinate the interactions between several LLMs. PyPDF2 version 3.0.1 was used to read the PDF documents and turn them into text. Panda's library version 1.4.3 was used for all data processing, analysis, and modification. Version 5.13.1 of the Plotly library is used to plot diagrams and figures. The three primary elements of the workflow—classification, feature selection and inclusion, and extraction—allow for completely automated data extraction. With certain adjustments, such as keeping track of the token process, the automation was carried out by hand. The dataset and procedure with the results can be found at <https://github.com/ai4mat-lab/GPT-MOF-Project>.

We used keywords to search for articles on topics such as carbon capture with MOF, MOF CO₂ capture, MOF for CO₂ adsorption, CO₂ adsorption using MOF, Metal-organic framework for CO₂ capture, Metal-organic framework for CO₂ adsorption, and Metal-organic framework for carbon capture. We also used review articles. After categorizing the articles and evaluating them, we created a table (**Table S 1**) of the following parameters:

Type - Metal - Ligand - Synthesis method - Solvent - Physical state - Oxidation number - Reaction Time (h) - SSA (m^2/g) - pore size (nm) - pore volume (cm^3/g) - CO_2 adsorption capacity (mmol/g) - CO_2 selectivity amount - Adsorption Temperature (K) - Adsorption Pressure (bar) – filename – Group – Super Group.

The MOFs were grouped according to their names and based on their classification; we created supergroups as a classification of some groups. For example, we named all ZIF-8 and ZIF-67 groups as ZIF supergroups. **Table S 1** displays all extracted data from PDF files. In **Figure S-1**, raw data taken from the ChatGPT is cleaned, classified, and separated by coding values and features for the visualization process.

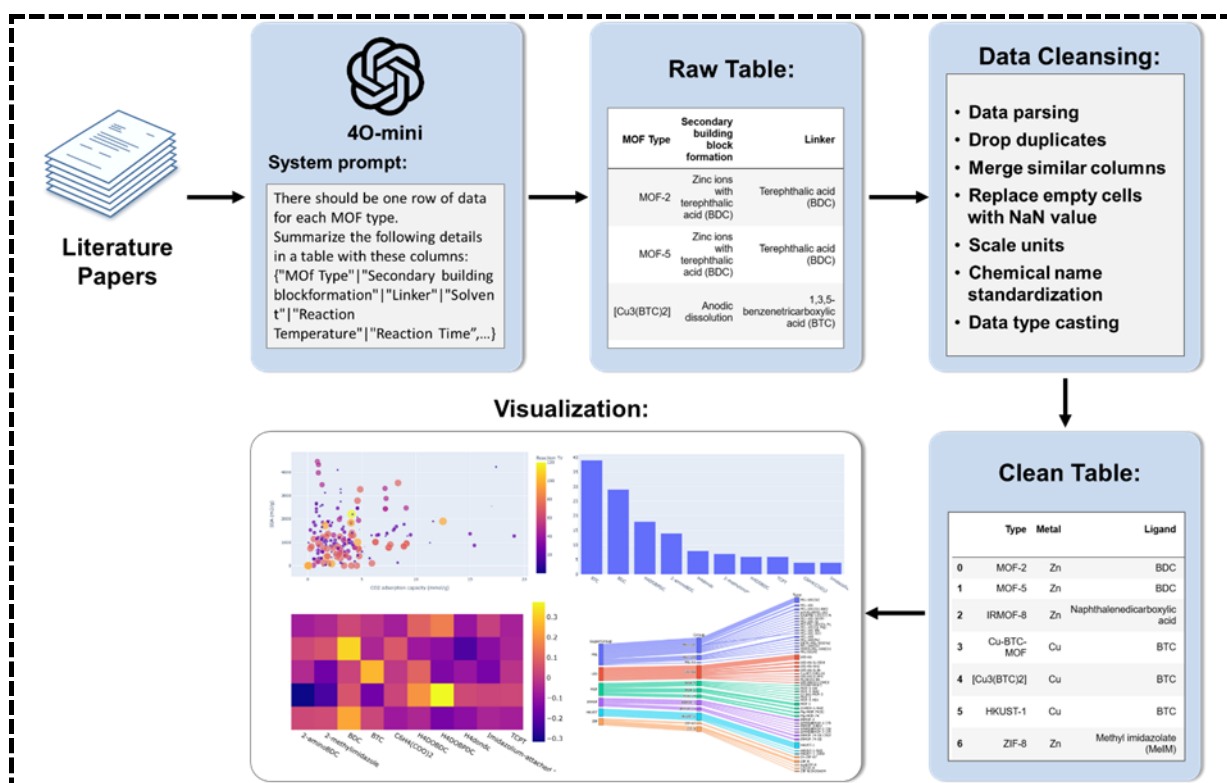


Fig. S-1. A schematic of the LLM in the general process of extracting information and data from papers (PDF files) and the general process of text mining based on the defined features of types of metals, type of MOF, ligands, and CO_2 adsorption rate (mmol/g).

In the preceding discussion, we demonstrated that fixed prompts, when contextualized with information from research literature, can effectively direct ChatGPT-4o-mini in executing

non-conversational text-processing tasks, including summarization and classification. A key advantage of employing the ChatGPT API, compared to browser-based interfaces, is its capacity to iterate across multiple text inputs within programming constructs such as a for loop. This functionality allows parallel handling of large volumes of queries, thereby improving throughput and efficiency in large-scale computational workflows.

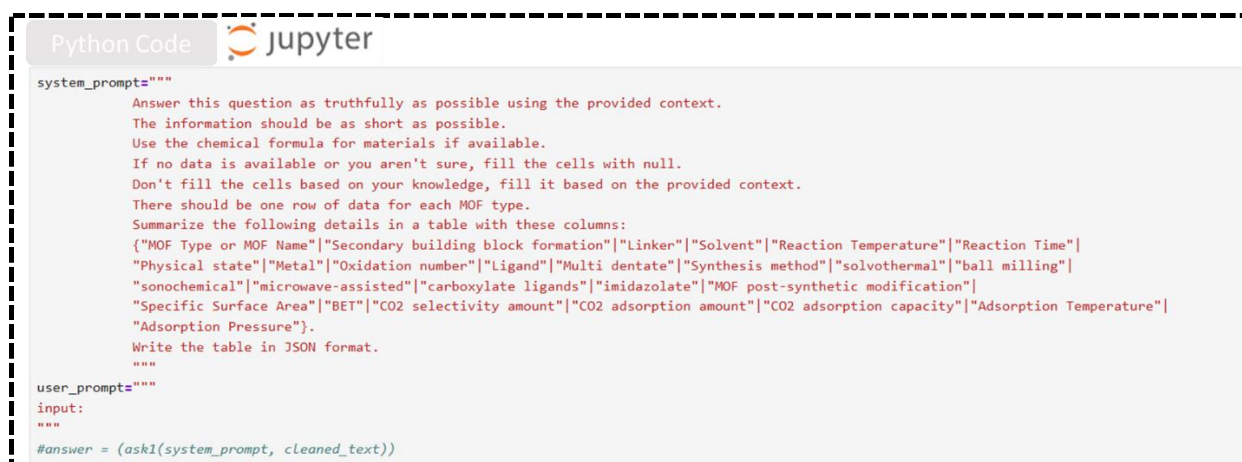
Figure S-2 shows the Python scripts, codes, and prompts generated by ChatGPT-4o-mini, demonstrating the application of structured instructions to extract synthesis parameters for MOFs and process conditions related to CO₂ capture.



```
Python Code | jupyter

import openai
import re
import PyPDF2
import pandas as pd
import numpy as np
import os
from tqdm import tqdm
openai.api_key = " "

def ask1(system_prompt,user_prompt,engine='gpt-4o-mini'):
    response=openai.ChatCompletion.create(
        model=engine,
        messages=[
            {
                'role': 'system',
                'content': system_prompt
            },
            {
                'role': 'user',
                'content': user_prompt
            }
        ]
    )
    response = response.choices[0].message.content.strip()
    return response
```



```

Python Code
system_prompt="""
Answer this question as truthfully as possible using the provided context.
The information should be as short as possible.
Use the chemical formula for materials if available.
If no data is available or you aren't sure, fill the cells with null.
Don't fill the cells based on your knowledge, fill it based on the provided context.
There should be one row of data for each MOF type.
Summarize the following details in a table with these columns:
{"MOF Type or MOF Name"|"Secondary building block formation"|"Linker"|"Solvent"|"Reaction Temperature"|"Reaction Time"|
"Physical state"|"Metal"|"Oxidation number"|"Ligand"|"Multi dentate"|"Synthesis method"|"solvothermal"|"ball milling"|
"sonochemical"|"microwave-assisted"|"carboxylate ligands"|"imidazolate"|"MOF post-synthetic modification"|
"Specific Surface Area"|"BET"|"CO2 selectivity amount"|"CO2 adsorption amount"|"CO2 adsorption capacity"|"Adsorption Temperature"|
"Adsorption Pressure"}.
Write the table in JSON format.
"""

user_prompt="""
input:
"""

#answer = (ask1(system_prompt, cleaned_text))

```

Fig. S-2. The Python script generated by ChatGPT-4o-mini illustrates the application of structured prompts to extract synthesis parameters for MOFs and process conditions relevant to CO₂ capture.

2. Section S2. Data analysis

The frequency chart of data obtained from text mining for the specified parameters from the specified papers is shown in the **Figure. S-3**. Black areas indicate the presence of data.

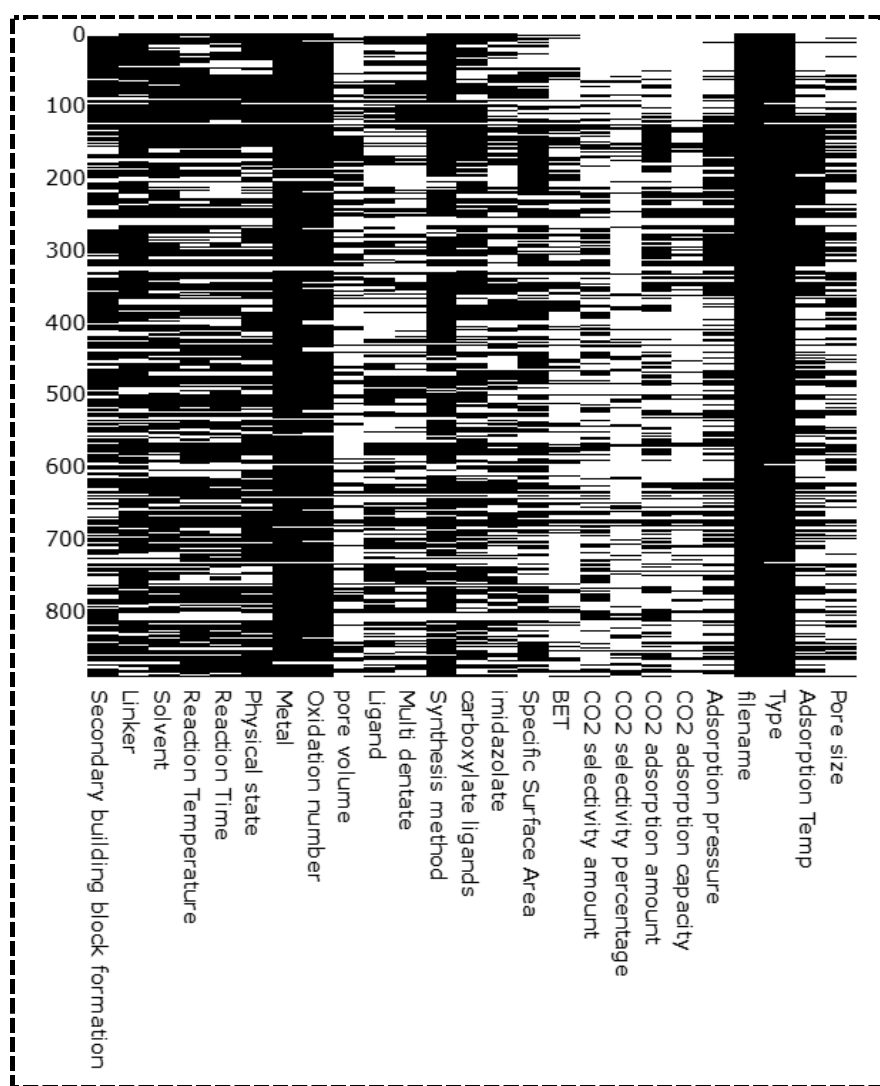


Fig. S-3. Graph of frequency data collected from text mining of PDF files for the specified parameters.

To develop the training dataset, an initial data curation step was conducted. Instances in which the oxidation conditions of the synthesis were incomplete were identified and excluded to reduce model complexity. Retaining such cases would have required extensive one-hot encoding for multicomponent systems, thereby inflating the feature space and increasing model dimensionality. Additionally, synthesis records involving rare composite combinations were removed, as these outliers could introduce noise and hinder effective model learning. Following a comparative evaluation of synthesis condition quality

extracted through different processes (**Figure S 3**), the most relevant features were selected. Consequently, the final dataset comprised 433 curated and sampled articles (**Figure S 2**), which formed the basis for model training.

A set of chemical descriptors was constructed from the extracted synthesis parameters, encompassing metal node(s), linker(s), solvent(s), and reaction condition(s). Solvents were categorized into eight distinct classes according to their frequency of occurrence in the dataset. Each category was mapped to a numerical matrix, where assignments followed the ranked frequency of compounds within each group (**Table S 2**). These categories were then encoded using a one-hot encoding representation. For cases in which solvents or modifiers were absent from the synthesis description, zero-filled arrays were employed.

Figure 4 S(a) demonstrates that the amount of CO₂ adsorption has the strongest association with pore volume, SSA, and adsorption pressure parameters, whereas little connection was seen with the other parameters. **Figure S 4(b)** shows a strong correlation between SSA, pore volume, and CO₂ adsorption rates for Cr and Cu metals, respectively. The strongest correlation between adsorption temperature parameters is also seen with Cr and Mg metals. An interesting correlation between the CO₂ adsorption characteristics and the MOF structures of various ligands is seen in **Figure S 4(c)**. Both the SSA correlation and the CO₂ adsorption capacity correlation are strongest for MOFs MIL-101 and MOF-74, respectively. Furthermore, pore volume and adsorption temperature exhibit the strongest correlation between MIL-101 and MIL-100, respectively.

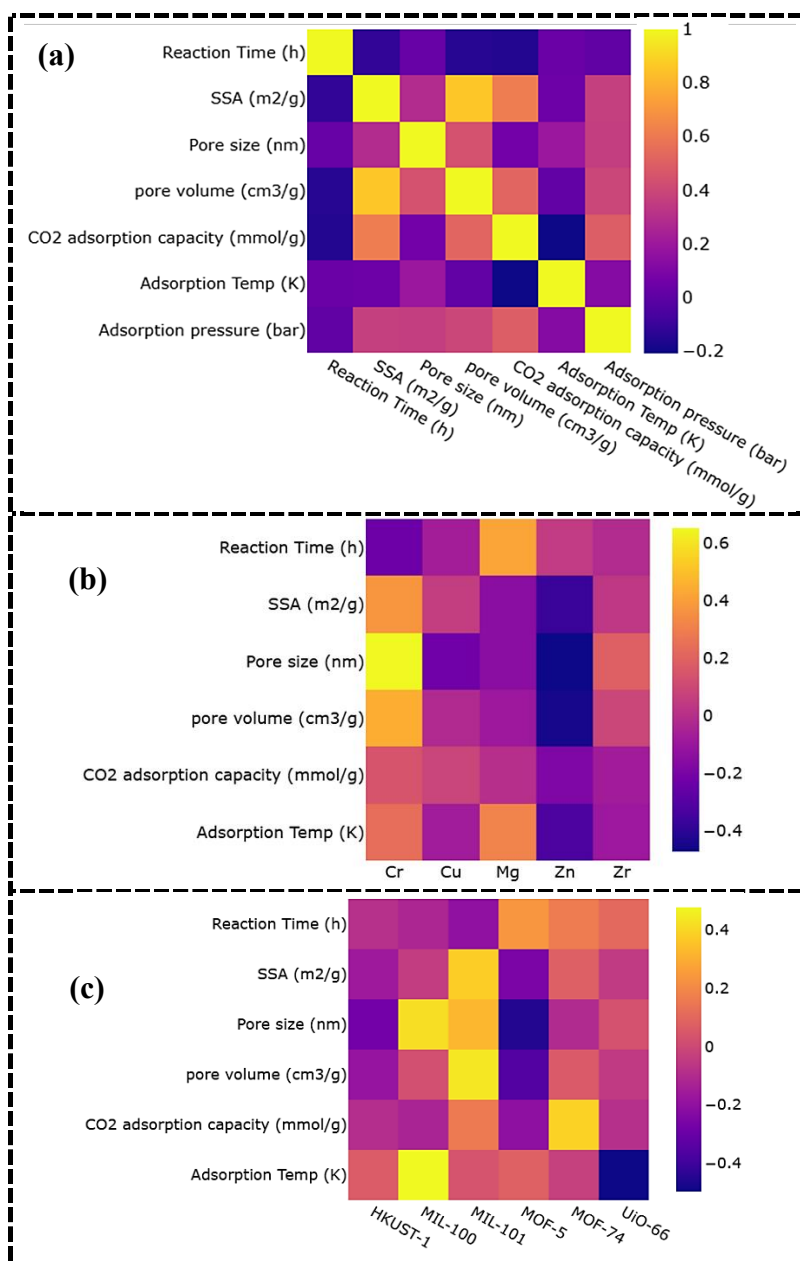


Fig. S-4. Pearson's correlation matrix for input and output parameters ((a) porous material characteristics, adsorption process condition, (b) top five metal types, and (c) top six MOF, and CO₂ adsorption capacity).

The data range of CO₂ adsorption capacity (mmol/g) and SSA (m²/g) vs. adsorption pressure (bar) and temperature (K) are depicted in **Figure S-5**. The range of adsorption pressure and temperature are between 0-15 bar and 280-330 K respectively.

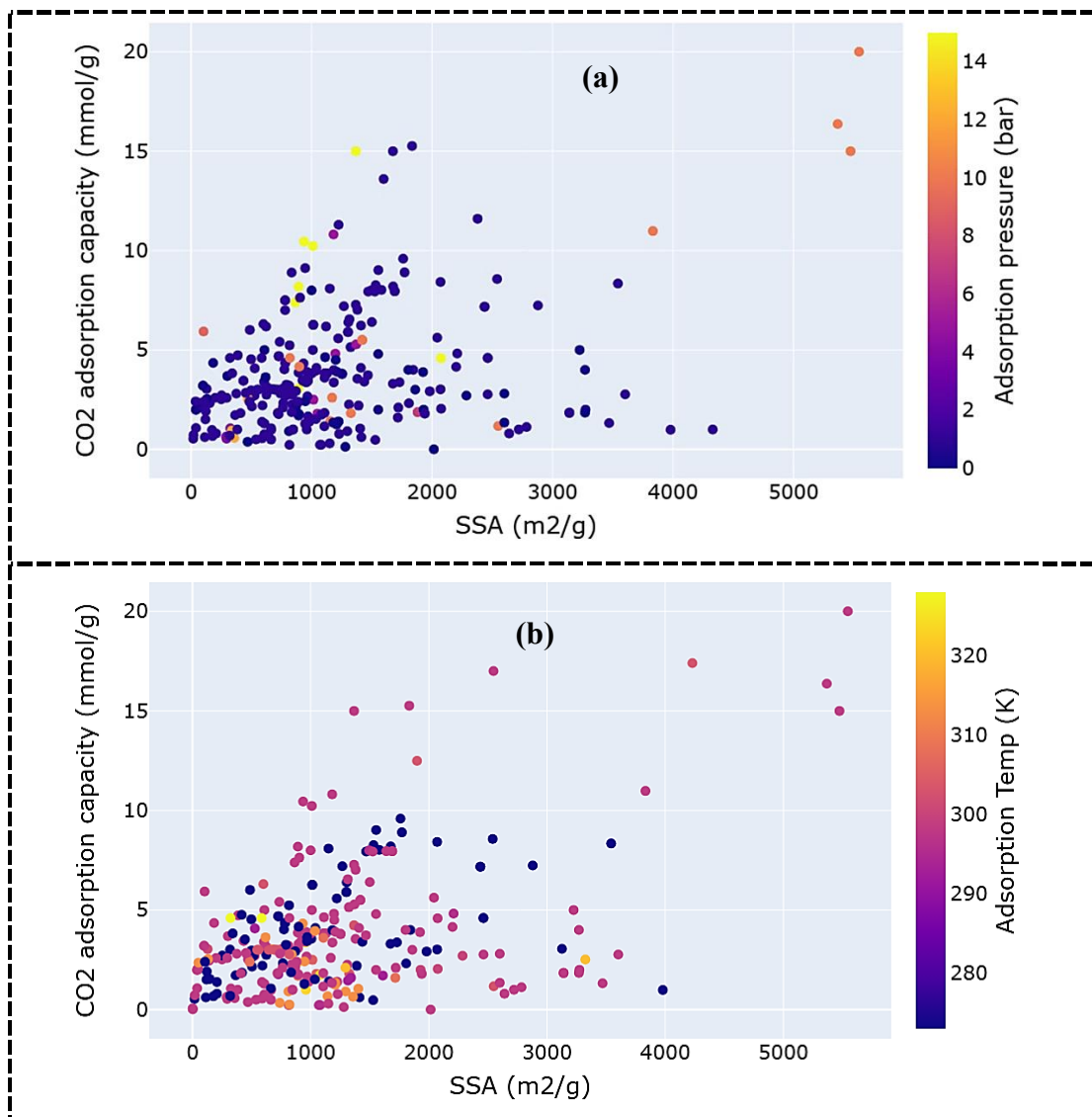


Fig. S-5. Range of adsorption pressure (bar), and temperature (K) obtained from data mining along with CO₂ adsorption (mmol/g) and SSA (m²/g).

The data range of CO₂ adsorption capacity (mmol/g) and SSA (m²/g) vs. reaction time (h) and oxidation number (n) are depicted in **Figure S-6**. The range of adsorption reaction time and oxidation number are between 0-120 h and 0-4 respectively.

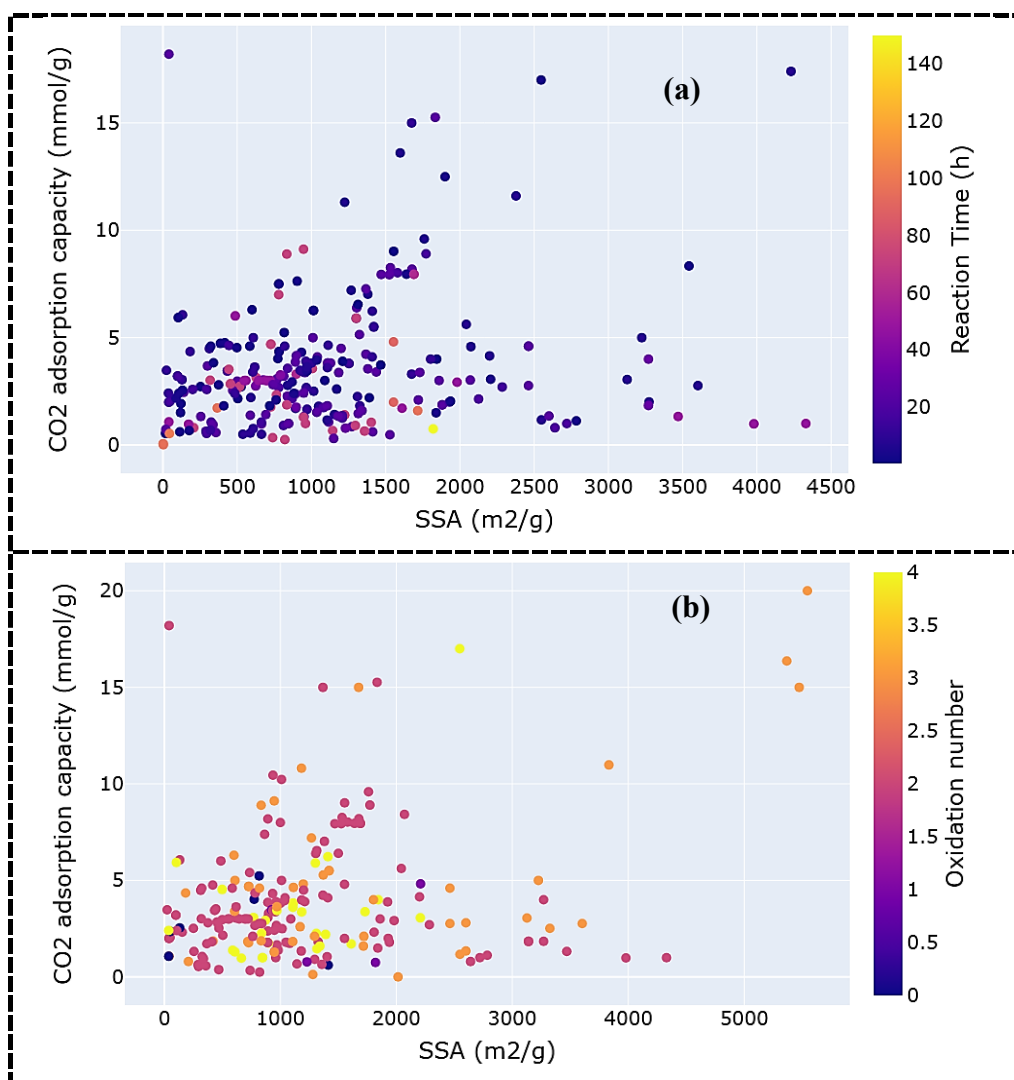


Fig. S-6. Range of (a) reaction time and (b) oxidation number obtained from data mining along with CO₂ adsorption (mmol/g) and SSA (m²/g).

Figures S-7 show the scatter of the data on CO₂ adsorption capacity (mmol/g), and the top ten metals, ligands, and MOF groups obtained from the data text mining results.

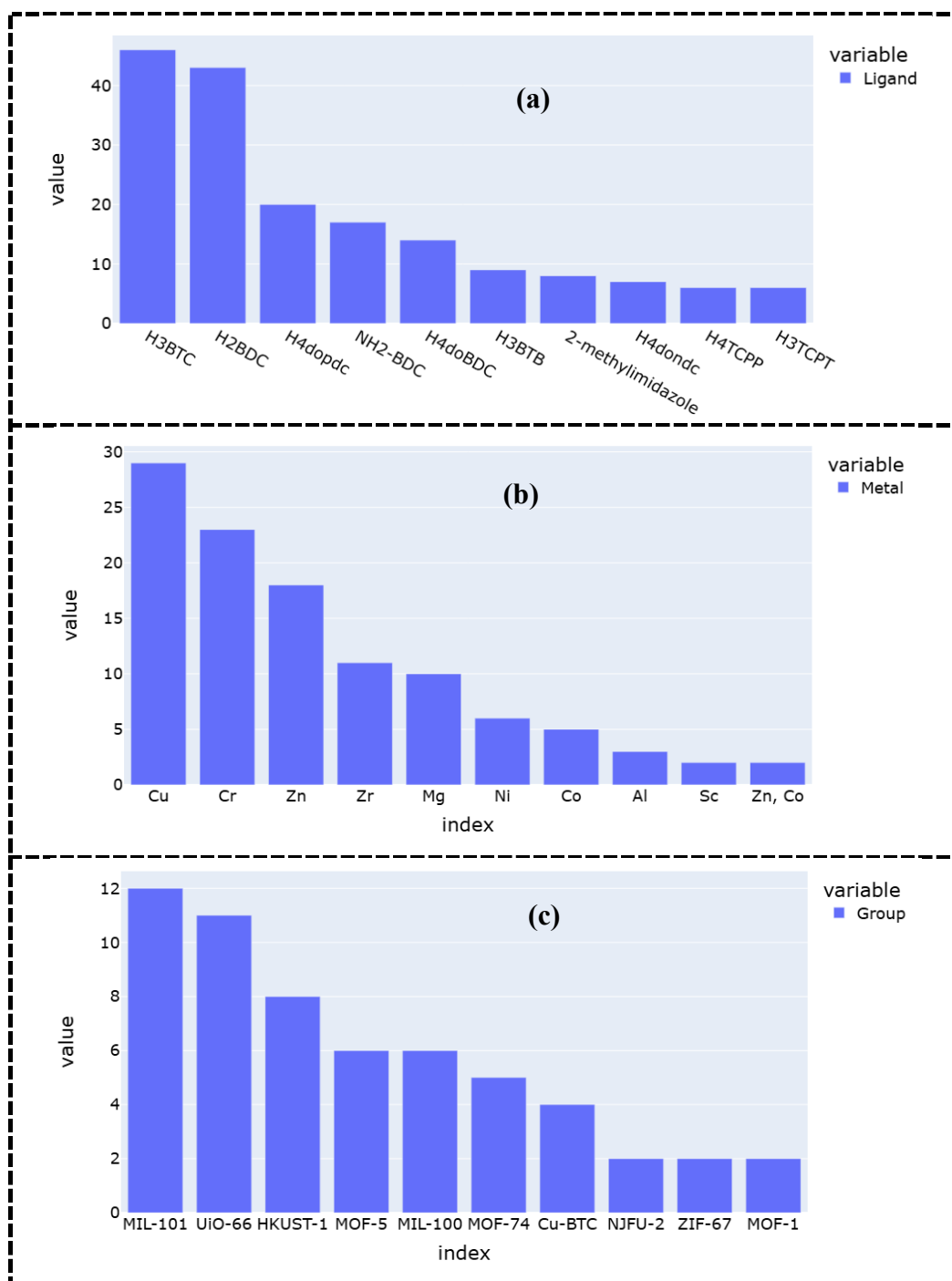


Fig. S-7. Number of (a) top ten ligands, (b) top ten metals and (c) top ten MOFs group data along for CO₂ adsorption.

Figures S-8 show the statistical distributions of the data on CO₂ adsorption capacity (mmol/g), and SSA (m²/g) alongside top five MOF supergroups extracted from text mining.

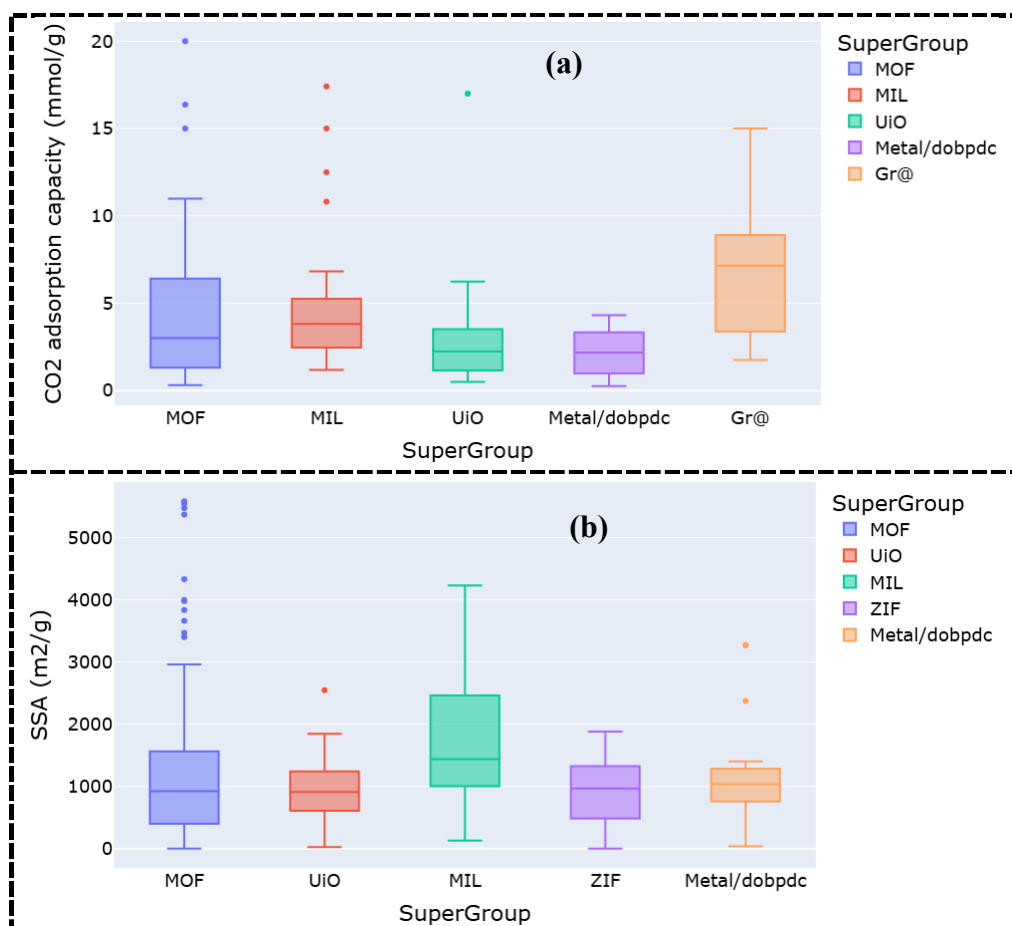


Fig. S-8. Statistical distributions of (a) CO₂ adsorption capacity and (b) SSA (m²/g) alongside top five MOF supergroups extracted from text mining.

Figures S 9 and 10 show the statistical data distribution of other key parameters influencing CO₂ adsorption capacity, including the top five ligands, metal and MOF groups. The results confirm the impact of the top five ligands alongside the top five metals on CO₂ adsorption. Cu and Co metals, along with H₂BDC and NH₂BDC ligands from MOF-74 and MIL-101, will produce a high specific surface area and enhanced CO₂ adsorption (see **Figures S 9 and S 10**).

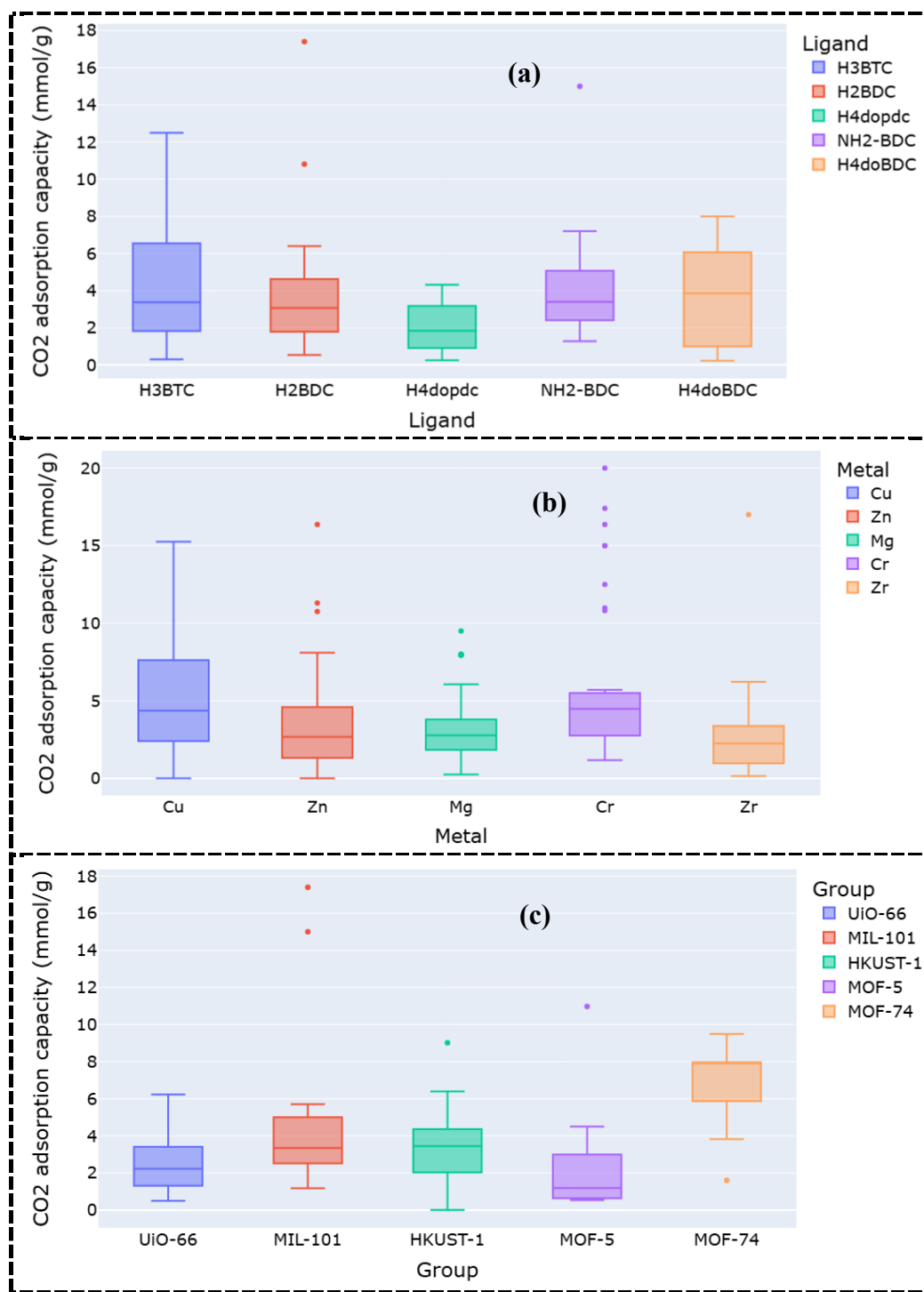


Fig. S-9. Statistical distributions of CO₂ adsorption capacity alongside the top five (a) ligands, (b) metals, and (c) MOF groups extracted from text mining.

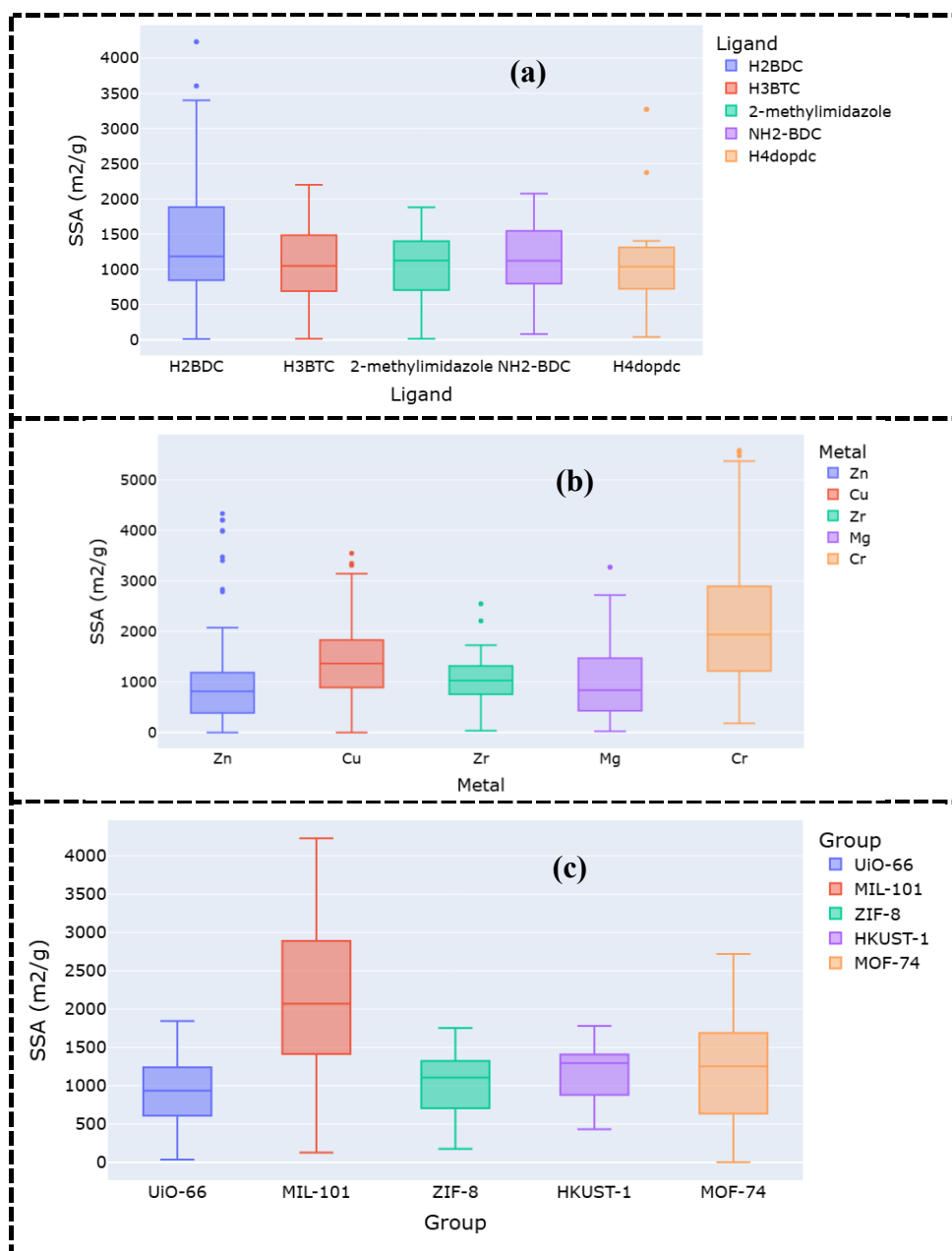


Fig. S-10. Statistical distributions of SSA (m^2/g) alongside the top five (a) ligands, (b) metals (c), and MOF groups extracted from text mining.

Figure S 11 shows another aspect of the top ten metal interactions with MOF ligands, MOF types and the specific surface area SSA (m^2/g) on the CO_2 adsorption rate (mmol/g). Cu and Zn metals, BTC, and BDC ligands with MIL-101 and UiO-66 MOF types show the highest abundance in CO_2 adsorption in different ranges, respectively.

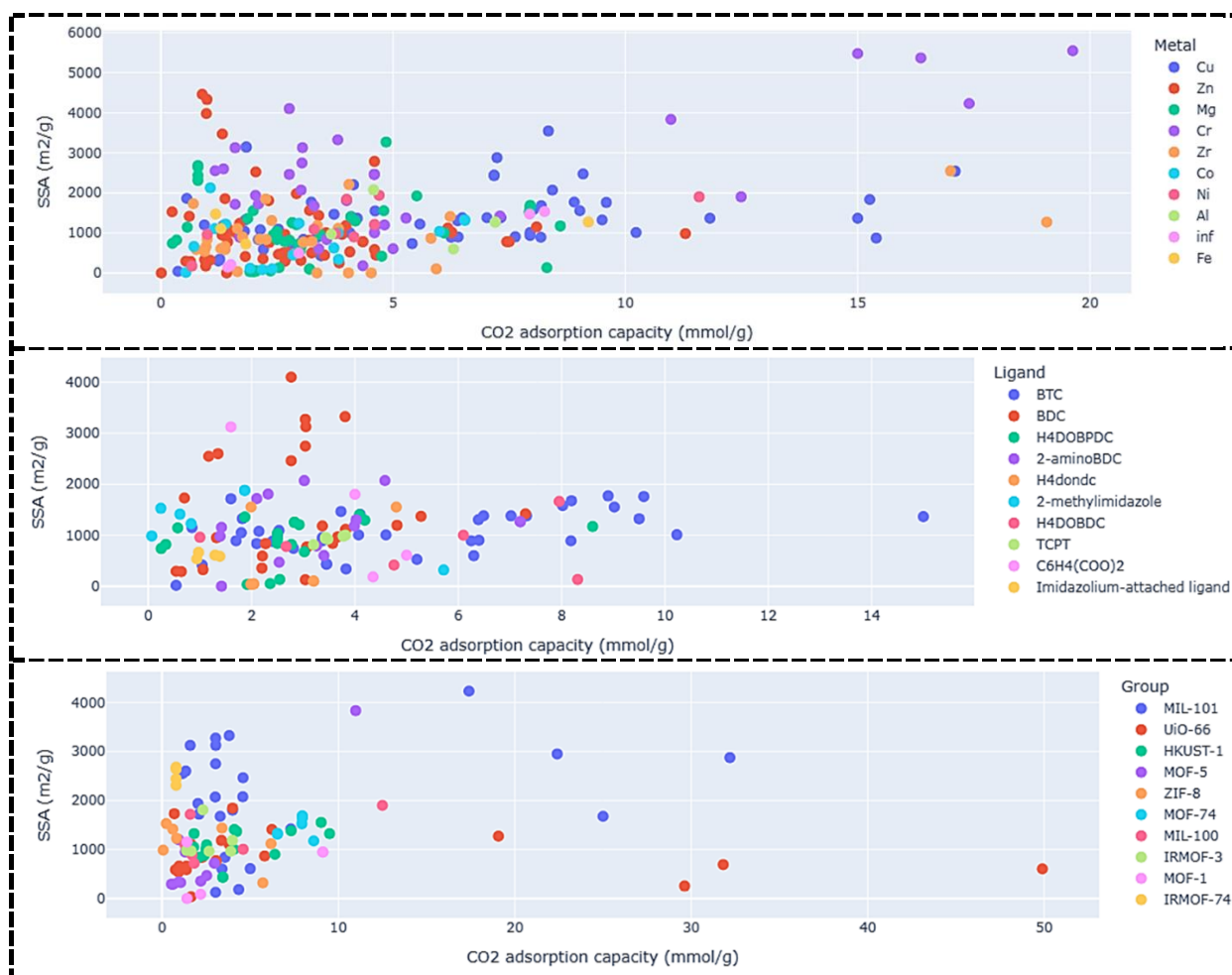


Fig. S-11. CO₂ adsorption capacity (mmol/g) data range for (a) the top ten metals (0-20 mmol/gr), (b) top ten MOF ligands (0-15 mmol/gr) and (c) top ten MOF groups (0-50 mmol/gr) along with the SSA (m²/g).

Data availability

The codes, procedures and workflow used in this study are available in the GitHub repository, accessible via the link below.

https://github.com/ai4mat-lab/GPT_MOF_Project

Further details on usage can be found in the repository's documentation. A supplementary data repository is available on Zenodo (<https://doi.org/10.5281/zenodo.17619285>), providing the datasets, and codes used in this research study.

Table S 1 displays all extracted data from PDF files. The results of the validation process between the ChatGPT text mining and comparison with the original article experimental data

are reflected in **Table S 2**. The dataset, which includes the exact paper's DOI and parameter values, can be found in the **Table S 3** referenced SIFs.

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Reference

1. Zhong P, Deng B, He T, Lun Z, Ceder G. Deep learning of experimental electrochemistry for battery cathodes across diverse compositions. *Joule*. 2024;8(6):1837-1854.

3. Section S3. Dataset

Our dataset, obtained from text mining, is listed in **Table S1**.

We also compiled a list of MOF-type data reported in the article list, along with DOIs and PDF file numbers, which are listed in **Table S3**. This approach facilitated the creation of a synthesis and publication information card for each compound.

Table S 1. Text data points extracted from ChatGPT 4o-mini with paper file names and associated MOF group names.

No.	Type	Metal	Ligand	Synthesis method	Solvent	Physical state	Oxidation number	Reaction Time (h)	SSA (m ² /g)	CO ₂ adsorption capacity (mmol/g)	CO ₂ selectivity amount	Adsorption Temp (K)	Adsorption Pressure (bar)	File name	Group
0	MOF-2	Zn	BDC	solvothermal	N/methyl/2/pyrrolidone/chlorobenzene/DMF	solid		3						001.pdf	
1	MOF-5	Zn	BDC	solvothermal	diethylformamide	solid		4	3400					001.pdf	MOF-5
2	IRMOF-8	Zn	NDC	solvothermal	diethylformamide/N/methyl/2/pyrrolidone	solid		4	1750					001.pdf	
3	Cu-MOF	Cu	BTC	electrochemical	MeOH	solid		2.5	1820					001.pdf	
4	[Cu ₃ (BTC) ₂]	Cu	BTC	electrochemical	EtOH/H ₂ O (varying ratios)	thin film		0.5						002.pdf	
5	HKUST-1	Cu	BTC	electrochemical	EtOH/H ₂ O	solid	2	1	1400					003.pdf	HKUST-1
6	ZIF-8	Zn	Methyl imidazolate	electrochemical	DMF/MeOH/H ₂ O	solid	2	1	1600					003.pdf	ZIF-8
7	MIL-100(Al)	Al	3,5-benzene-tricarboxylic acid (BTC)	electrochemical	EtOH/H ₂ O	solid	3	1						003.pdf	MIL-100
8	MIL-53(Al)	Al	BDC	electrochemical	DMF/H ₂ O	solid	3	3	1200					003.pdf	MIL-53
9	NH ₂ -MIL-53(Al)	Al	2-aminoBDC	electrochemical	DMF/H ₂ O	solid	3							003.pdf	MIL-53

10	HKUST-1	Cu	BTC	electrochemical	EtOH/H ₂ O	thin layers		0.41666 6667						004.pdf	HKUST-1
11	HKUST-1	Cu	C6H6O6	electrochemical	EtOH	film	2	0.16666 6667						005.pdf	HKUST-1
12	Cu ₃ (BTC) ₂	Cu	BTC	hydrothermal; ambient pressure synthesis; electrochemical synthesis	EtOH/EtOH/H ₂ O mixture	solid	2	14	1150			303		006.pdf	
13	MIL-100(Fe)	Fe	BTC	electrochemical deposition	2/1EtOH/Milli/QH ₂ O	coating on metal substrate and crystals in solution	3	1	2200					007.pdf	MIL-100
14	HKUST-1	Cu	BTC	electrochemical deposition	2/1EtOH/Milli/QH ₂ O	coating on copper substrate	2	1						007.pdf	HKUST-1
15	ZIF-4	Zn	IM	anodic growth	DMF/H ₂ O		2	0.625						008.pdf	
16	ZIF-7	Zn	bIM	anodic growth	DMF		2	2	358					008.pdf	
17	ZIF-8	Zn	mIM	anodic growth	DMF		2	1	1730					008.pdf	ZIF-8
18	ZIF-14	Zn	eIM	anodic growth	DMF/H ₂ O		2	1	598					008.pdf	
19	ZIF-67	Co	mIM	anodic growth	DMF		2	3	1521					008.pdf	ZIF-67
20	Tb-BTC	Tb	BTC	electrochemical synthesis	EtOH/H ₂ O	solid								009.pdf	
21	Gd-BTC	Gd	BTC	electrochemical synthesis	EtOH/H ₂ O	solid								009.pdf	
22	Zn-BTC	Zn	BTC	electrochemical synthesis		solid								009.pdf	
23	Zn ₃ (BTC) ₂	Zn	BTC	electrochemical plating	EtOH	thin film	2	0.01111 1111						010.pdf	
24	MOF-5(IL)	Zn	BDC	electrochemical	Bmimbromine	solid	2	2						011.pdf	MOF-5
25	MOF-5(IL)	Zn	BDC	electrochemical synthesis	IonicLiquid(1/butyl/3 /methylimidazoliumc hloride)	spherical structure	2	2	914.7					012.pdf	MOF-5
26	MOF-5	Zn	BDC	solvothermal	DMF	cubic structure	2		627.3					012.pdf	MOF-5
27	MOF-5	Zn	BDC	electrodepositio n	100/1(v/v) DMF/H ₂ O	crystalline	2	0.25						013.pdf	MOF-5
28	MOF-5	Zn	BDC	electrochemical deposition	DMF	solid	2	0.25						014.pdf	MOF-5
29	(Et ₃ NH) ₂	Zn	BDC	electrodepositio	DMF	solid	2		917					015.pdf	

	Zn ₃ (BDC) ₄			n											
30	MOF-5	Zn	BDC	electrodeposition	DMF	solid	2		917					015.pdf	MOF-5
31	HKUST-1	Cu	BTC	electrophoretic deposition (anodic)	dimethylsulfoxide/MeOH	thin film	2	0.166666667			4.6			016.pdf	HKUST-1
32	ZIF-8	Zn	2-methylimidazole	electrophoretic deposition (anodic)	H ₂ O	thin film	2	0.166666667						016.pdf	ZIF-8
33	ZIF-8	Zn	2-methylimidazole	indirect bipolar electrodeposition	aqueous solution	solid	2	1						017.pdf	ZIF-8
34	HKUST-1	Cu	BTC	indirect bipolar electrodeposition	EtOH	solid	2	1						017.pdf	HKUST-1
35	UiO-66	Zr	BDC	electrochemical film deposition	Dimethylformamide (DMF)	solid	4	0.5						018.pdf	UiO-66
36	HKUST-1	Cu	BTC	spray-drying	DMF/EtOH/H ₂ O	hollow superstructures	1		1209					019.pdf	HKUST-1
37	Cu-bdc	Cu	BDC	spray-drying	DMF	hollow superstructures	1							019.pdf	
38	NOTT-100	Cu	3,3',5,5'-biphenyl-tetracarboxylic acid (bptc)	spray-drying		hollow superstructures								019.pdf	
39	MIL-88A	Fe	Fumarate	spray-drying	H ₂ O	hollow superstructures								019.pdf	
40	MOF-5	Zn	bdc	spray-drying	DMF	hollow superstructures								019.pdf	MOF-5
41	UiO-66	Zr	1,4-BDC	spray-drying continuous flow	DMF/H ₂ O	beads	4		1106					020.pdf	UiO-66
42	Fe-BTC/MIL-100	Fe	BTC	spray-drying continuous flow	DMF	beads	3		1039					020.pdf	MIL-100
43	[Ni ₈ (OH) ₄ (H ₂ O) ₂ (L) ₆] _n	Ni	1H-pyrazole-4-carboxylic	spray-drying continuous flow	DMF/H ₂ O	beads	2		377					020.pdf	

			acid												
44	SIFSIX-3-Co	Co	pyrazine	spray-drying	MeOH	solid	2			2.56		298	1.0132 472	021.pdf	SIFSIX-3
45	SIFSIX-3-Cu	Cu	pyrazine	spray-drying	MeOH	solid	2			2.23		298	1.0132 472	021.pdf	SIFSIX-3
46	SIFSIX-3-Zn	Zn	pyrazine	spray-drying	MeOH	solid	2			2.27		298	1.0132 472	021.pdf	SIFSIX-3
47	SIFSIX-1-Zn	Zn	4,4'-bipyridine	spray-drying	MeOH	solid	2		1300					021.pdf	
48	TIFSIX-1-Cu	Cu	4,4'-bipyridine	spray-drying	H ₂ O/MeCN	solid	2		1650					021.pdf	
49	MPM-1-TIFSIX	Cu	adenine	spray-drying	H ₂ O/MeCN	solid	2		805					021.pdf	
50	Zn-ZIF-67	Zn, Co	2-methylimidazole	synthesis in water	H ₂ O	crystalline		24	1881	1.866244312	>99%	273	7	022.pdf	ZIF-67
51	ZIF-8	Zn	2-methylimidazole	solvothermal	MeOH	solid		4	1173				7	023.pdf	ZIF-8
52	Amine-functionalized ZIF-8	Zn	Ethylene diamine	solvothermal	Toluene	solid		20	1096				7	023.pdf	ZIF-8
53	ZIF-8/CN Foam	Zn	2-methylimidazole	template-assisted growth	MeOH	solid	2	6	211		Quantitative yield	353	10	024.pdf	ZIF-8
54	Au/Zn-MOF nanocages	Au, Zn	2-methylimidazole	cation exchange	MeOH	nanocage		8	1129		97.00%			025.pdf	
55	ZIF-8	Zn	2-methylimidazole	synthesis	MeOH	solid	2	24	1235					026.pdf	ZIF-8
56	ZnO@NP _C	Zn		pyrolysis	H ₂ O	solid	2	24	1183	0.613496933		273	1	026.pdf	
57	ZIF-68	Zn	2-nitroimidazole, benzimidazole	hydrothermal	DMF	solid		12			99.00%		10	027.pdf	
58	F-ZIF-90	Zn	Imidazolate	solvothermal and post-functionalization	DMF/THF/MeOH	solid		5	763		97.90%	393	11.7	028.pdf	
59	ZIF-95	Zn	5-	solvothermal	DMF	solid	2	2	1170					029.pdf	

			chlorobenzimidazole (cbIM)												
60	ZIF-67	Co	2-methylimidazole	solvothermal	MeOH	solid		24	10400		> 99%	368	8	030.pdf	ZIF-67
61	MOF-5	Zn	BDC	copolymerization	DMF	solid	2	6						031.pdf	MOF-5
62	JUC-1000	Cu	2,4-bis(3,5-dicarboxyphenylamino)-6-ol triazine (H4BDPO)	solvothermal	DMF	microporous			1221	5.576871598		273	1.01325	032.pdf	
63	ZnMOF-1	Zn	BDC	mechanochemical grinding	SolventFree	solid		8				648	1.01325	033.pdf	MOF-1
64	ZnMOF-2	Zn	IPA, L2	mechanochemical grinding	SolventFree	solid		8				648	1.01325	033.pdf	
65	MOF-Zn-1	Zn	melamine (MA), 2,5-thiophenedicarboxylic acid (H2L)	solvothermal crystallization	DMF	solid	2	72	1006.3	3.555813331		273		034.pdf	
66	ZnMOF-1-NH2	Zn	2-aminoBDC	mechanochemical synthesis and conventional reflux	DCM	solid	2	8	1.1554	1.4181		273		035.pdf	MOF-1
67	{[Zn(DCTP)] Å·4.2H ₂ O}	Zn	H2DCTP (4':(3,5-dicarboxyphenyl)-4,2':6',4'':terpyridine)	solvothermal	DMF	colorless block crystals	2	96		2.989203177		273		036.pdf	
68	UiO-66	Zr	BDC	solvothermal	DMF	microcrystalline	4	12	1665					037.pdf	UiO-66
69	UiO-66-OH	Zr	BDC	solvothermal	DMF	microcrystalline	4	2	1345					037.pdf	UiO-66
70	UiO-66-IL-CIO4	Zr	Imidazolium-attached ligand	solvothermal	DMF	nanoscale particles	4	24	608.21	1.384848755	32.3	298	1.01325	038.pdf	UiO-66
71	UiO-66-IL-PF6	Zr	Imidazolium-attached ligand	ion exchange	EtOH	nanoscale particles	4		538.23	1.292941911	41.37	298	1.01325	038.pdf	UiO-66

72	UiO-66-IL-SO ₃ CF ₃	Zr	Imidazolium-attached ligand	ion exchange	EtOH	nanoscale particles	4		588.52	1.384848755	55.65	298	1.01325	038.pdf	UiO-66
73	UiO-66-IL-Br	Zr	Imidazolium-attached ligand	solvothermal	DMF	nanoscale particles	4	24	663.7	0.973498706	30	298	1.01325	038.pdf	UiO-66
74	UiO-67-IL	Zr	imidazolium-based ligand	solvothermal	DMF	powder	4	24	846	0.99937539	4.9	273	1.01325	039.pdf	
75	MIL-101-SO ₃ H	Cr	Monosodium m 2-sulfoBDC	solvothermal	H ₂ O	solid	3	144	1049					040.pdf	MIL-101
76	IL@MIL-101-SO ₃ H	Cr	1-methyl-3-(2-aminoethyl) imidazolium bromide	self-assembly	H ₂ O	solid	3	48	1049				1.01325	040.pdf	MIL-101
77	Co(II) MOF {[Co(μ -3-L)(H ₂ O)] $\cdot$ 0.5H ₂ O}	Co	H ₂ L = thiazolidine 2,4-dicarboxylic acid	simplified synthesis	DMF	powder		36					1.01325	041.pdf	
78	CZ-ZIF	Zn, Co	2-methylimidazole	aqueous synthesis	H ₂ O	solid		2.5	1400		98%			042.pdf	
79	Mg-MOF-74(S)	Mg	H ₄ DOBDC	sonochemical	DMF/EtOH/H ₂ O	crystalline	2	1	1640	7.952738014	179 mg/g	298		043.pdf	MOF-74
80	Mg-MOF-74(C)	Mg	H ₄ DOBDC	solvothermal	DMF	crystalline	2	24	1525	7.930015905	171 mg/g	298		043.pdf	MOF-74
81	[(CH ₃) ₂ NH ₂] ₆ [Cd ₃ L(H ₂ O) ₂] $\cdot$ 12H ₂ O	Cd	H ₁₂ L (resorcin[4]arene-functionalized dodecacarboxylic acid)	solvothermal assembly	DMF/H ₂ O	microporous	2	144						044.pdf	
82	[Co ₂ L _{0.5} V ₄ O ₁₂] $\cdot$ 3DMF $\cdot$ 5H ₂ O	Co, V	resorcin[4]arene ligand (L)	solvothermal	DMF/H ₂ O	solid		72						045.pdf	

83	UMCM-15	Zn	H2-BDC	microwave-assisted	EtOH/H ₂ O	solid		0.25	815	55	>99%	293	12	047.pdf	
84	UMCM-15(S)	Zn	H2-BDC	solvothermal	DMF	solid		32	683		>99%	293		047.pdf	
85	Zinc-glutamate-MOF (ZnGlu)	Zn	L-glutamic acid	eco-friendly aqueous synthesis	H ₂ O	bulk and single crystals		6	8.3		>99%	273	12	048.pdf	
86	CHB	Cu	4,4'-dipyridyl (Bpy)	microwave-assisted synthesis	H ₂ O	solid		0.1	0.4		90.30%			049.pdf	
87	CMOF 1	Cd, Ni	Ni-L	solvothermal	DMF/EtOH/H ₂ O	solid	2	96	275.8	1.722137949		273	1.01325	050.pdf	
88	UMCM-1-NH2	Zn	1,3,5-Tris(4-carboxyphenyl) benzene, 2-aminoBDC	solvothermal	DMF	solid	2	72	4200	53				051.pdf	
89	gea-MOF-1	Y	H3BTB	solvothermal	DMF/H ₂ O	solid	3	36	1490					052.pdf	MOF-1
90	gea-MOF-2	Cu	H6L	solvothermal	DMF	solid	2	168						052.pdf	
91	CdPDIA	Cd	5-(phenyldiaz enyl) isophthalic acid (H2PDIA)	solvothermal	DMF/H ₂ O	solid		72						053.pdf	
92	RE-BDC	RE (Y, Tb, Er)	BDC		DMF/H ₂ O		3							054.pdf	
93	RE-NDC	RE (Y, Tb, Er)	NDC (2,6-naphthalene dicarboxylic acid)		DMF/H ₂ O		3							054.pdf	
94	[{Sm(BT B)(H2O)} .H2O] _n (MOF 1)	Sm	BTB	solvothermal	DMF/H ₂ O	solid	3	72	946.74	9.12	negligible uptake for N ₂ , H ₂ , Ar			055.pdf	MOF-1
95	[{Gd(BT B)(H2O)} .H2O] _n (MOF 2)	Gd	BTB	solvothermal	DMF/H ₂ O	solid	3	72	834.26	8.89	negligible uptake for N ₂ , H ₂ , Ar			055.pdf	
96	Gd-MOF	Gd	pyromelliti	solvothermal	DMF	solid		12	235.7		98.40%			056.pdf	

			c dianhydride (PMDA)												
97	1-Gd	Gd	1,1'- cyclopropa ne- dicarboxyli c acid (H2CDA)	solvothermal	DMF/H ₂ O	solid	3	72						057.pdf	
98	2-Dy	Dy	1,1'- cyclopropa ne- dicarboxyli c acid (H2CDA)	solvothermal	DMF/H ₂ O	solid	3	72						057.pdf	
99	{[TbZn(B PDC)2(Å μ2- H2O)Cl(H2O)3]Å· 5H2O}n	Tb, Zn	H2BPDC	solvothermal	DMA/H ₂ O	solid	3	72		1.11537432		298	1.0132 5	058.pdf	
100	{[TbCo(B PDC)2(Å μ2- H2O)Cl(H2O)3]Å· 8H2O}n	Tb, Co	H2BPDC	solvothermal	DMA/H ₂ O	solid	3	72						058.pdf	
101	UTSA-16	Co	citric acid (C6H8O7Å ·H2O)	hydrothermal	H2O/C2H5OH	violet prismatic	2	48		7.138395646		296	1	059.pdf	
102	{[Zn(L)] Å·2DMF Å·2H2O} n(1)	Zn	H2L	solvothermal	DMF	solid		72	215			273	1	060.pdf	
103	{[(CH3)2 NH2][Zn 2(L)(H2O)PO4]Å·2 DMF}n(2)	Zn	H2L	solvothermal	DMF	solid		72	750			273	1	060.pdf	
104	Cu2[(C20 H12N2O2	Cu(II)	bis(3,5- dicarboxyp	solvothermal	solvothermal	solid	2	48	2878.9	7.236548586		273	1.0132 5	061.pdf	

	)(COO)4]		henyl) isophthala mide (H4L1)												
105	{[Sr(BDP O) 0.5(H ₂ O)] /C ₁₂ H ₂ O }	Sr	N,N'- bis(isophth alic acid)- oxalamide (H4BDPO)	solvothermal	DMA/H ₂ O	solid	2		621	4.37672883	12.5	273	1.0132 5	062.pdf	
106	Ba-MOF	Ba	N,N'- bis(isophth alic acid)- oxalamide (H4BDPO)	solvothermal	DMA/H ₂ O	colorless block- shaped crystals	2	48	487	6.009636834	12.3	273	1.0132 5	063.pdf	
107	{Cu ₄ [(C ₅ H ₃ N ₂ O) 7H ₂ O] (COO) ₈] } _n	Cu	octacarbox ylate	solvothermal	dichloromethane	solid		48	2436	7.174087624		273	1.0132 5	064.pdf	
108	Fe ₃ O ₄	Fe		co- precipitation, thermal decomposition, hydrothermal		solid	2							065.pdf	
109	Fe ₃ O ₄ @S iO ₂	Fe		co-precipitation		solid	2							065.pdf	
110	Fe ₃ O ₄ /Gr aphene Oxide	Fe		co-precipitation		solid	2							065.pdf	
111	UMCM- 15	Zn	H ₂ -BDC	microwave- assisted	EtOH/H ₂ O	solid		0.25	815	55	>99%		12	066.pdf	
112	{[(CH ₃) ₂ NH ₂ +] ₂ [Zn ₃ ((1/43- O))(L) ₂ (H ₂ O)] ₄ · DMF ₄ ·2 H ₂ O}	Zn	H ₃ L	solvothermal	DMF/EtOH/H ₂ O	solid	2	72	318	3.01597216		273	15	067.pdf	
113	MOF 1	Mn	5,10,15,20- tetrakis(4- benzoate) porphyrin (TCPP)	solvothermal	DMF/H ₂ O	solid		48	320.5		42 for CO ₂ /H ₂ , 19 for CO ₂ /Ar, 26 for CO ₂ /N ₂	273	1.0132 5	068.pdf	MOF-1
114	MIL-	Cr	BTC	solvothermal	none	solid	3	18	2030					069.pdf	MIL-100

	100(Cr)														
115	MIL-100(V)	V	trimethyl-BTC	solvothermal	none	solid	3		2133					069.pdf	MIL-100
116	MIL-100(Fe)	Fe	BTC	solvothermal	none	solid	3		2230					069.pdf	MIL-100
117	MIL-101(Cr)	Cr	BDC	solvothermal	none	solid	3		2995					069.pdf	MIL-101
118	MIL-101(Cr)[PTA]	Cr	BDC	microwave-assisted	none	solid	3		2124					069.pdf	MIL-101
119	NH ₂ -MIL-101(Al)	Al	2-aminoBDC	solvothermal and microwave	none	solid		6	2074	4.771642808	99%	298	15	070.pdf	MIL-101
120	polyILs@MIL101	Cr	ortho-divinylbenzene	solvothermal	EtOH	solid	3	24	2462	2.766128313		298	1	071.pdf	
121	MIL101	Cr	BDC			solid	3		3603	2.543053449		298	1	071.pdf	
122	MIL101	Cr	BDC	solvothermal	EtOH/H ₂ O	solid	3	8	4100	2.766128313		273	0.5	072.pdf	
123	polyILs@MIL101	Cr	Imidazolium-based ionic liquid	in situ polymerization	EtOH	solid	3	24	2462	4.595342197		273	1	072.pdf	
124	{[Co ₂ (tzpa)(OH)(H ₂ O) ₂]}·DMF}	Co	H ₃ tzpa (5-(4-(tetrazol-5-yl)phenyl)isophthalic acid)	solvothermal	DMF/H ₂ O	solid	2	72	455	2.846435264	31.8	298	1	073.pdf	
125	[Eu(BTB)(phen)(H ₂ O) ₂] _n	Eu	BTB ³⁺	solvothermal	DMF/H ₂ O	solid	3	72						074.pdf	
126	(Me ₂ NH ₂)[In(SBA) ₂]	Indium	H ₂ SBA	solvothermal	DMF/acetonitrile	colorless crystals	3	72	207	0.8	11.46	273	1.0132 ₅	075.pdf	
127	(Me ₂ NH ₂)[In(SBA)(BDC)]	Indium	H ₂ SBA, BDC	solvothermal	DMF/acetonitrile	colorless single crystals	3	72		0.78		273	1.0132 ₅	075.pdf	
128	(Me ₂ NH ₂)[In(SBA)(BDC-NH ₂)]	Indium	H ₂ SBA, BDC	solvothermal	DMF/acetonitrile	pale-yellow single crystals	3	72		0.37		273	1.0132 ₅	075.pdf	
129	(NH ₄) ₃ [In ₃ Cl ₁₂ (BPDC) ₅]	Indium	H ₂ BPDC	des	Cholinechloride/oxalic acid(DES)	colorless single crystals	3	72						075.pdf	
130	[Zn ₂ (TC	Zn	1,3-	self-assembly	N/Nâ€²dimethylacet	solid	2	48	504	3.247970019		273	1	076.pdf	

	A)(BIB)2.5]A·(NO ₃)		bis(imidazo 1-1-ylmethyl) benzene (BIB)		amide (DMA)/EtOH										
131	CuIn1-xGaxS2-ySey (CIGSSe)	Cu, In, Ga		solution-coating method	MeOH	thin films		0.5						077.pdf	
132	Cu-BTC	Cu	C ₆ H ₃ (COO) ₃	solvothermal	DMF/EtOH/H ₂ O	solid	2	24	1305	6.39		273	1.0132 5	078.pdf	
133	CG-3	Cu	C ₆ H ₃ (COO) ₃	solvothermal	DMF/EtOH/H ₂ O	solid	2	24	1470	7.94		273	1.0132 5	078.pdf	
134	CG-9	Cu	C ₆ H ₃ (COO) ₃	solvothermal	DMF/EtOH/H ₂ O	solid	2	24	1532	8.26		273	1.0132 5	078.pdf	
135	CG-15	Cu	C ₆ H ₃ (COO) ₃	solvothermal	DMF/EtOH/H ₂ O	solid	2	24	500	2.97		273	1.0132 5	078.pdf	
136	HKUST-1	Cu	BTC	solvothermal	DMF/EtOH/H ₂ O	solid	2	10	1048.43	1.8		305	5.0662 5	079.pdf	HKUST-1
137	HKUST-1/GO	Cu	BTC	solvothermal	DMF/EtOH/H ₂ O	solid	2	10	1015.25	2.5		305	5.0662 5	079.pdf	HKUST-1
138	GrO@Cu-BTC	Cu	BTC	solvothermal	EtOH/H ₂ O	solid	2	24	1677	8.19	14	273	1	080.pdf	
139	Cu-BTC	Cu	BTC	solvothermal	EtOH/H ₂ O	solid	2	24	1382	6.49	5.3	273	1	080.pdf	
140	Cu ₃ (BTC) ₂ /GO	Cu	BTC	pickering emulsion	[n/octanol/H ₂ O]	solid	2	60	837	3.37		25		081.pdf	
141	CuBTC	Cu	BTC	mixed solvent strategy	DMF/EtOH/H ₂ O	solid	2	18	1580	8.02	29	273	1	082.pdf	
142	CuBTC@1%GO	Cu	BTC	mixed solvent strategy	DMF/EtOH/H ₂ O	solid	2	18	1772	8.9	43.8	273	1	082.pdf	
143	GrO@HKUST-1	Cu	C ₉ H ₆ O ₆	ultrafast synthesis	DMF	solid	2	0.01666 6667	1554	9.02	186	273	1	083.pdf	HKUST-1
144	UiO-66	Zr	BDC	solvothermal	DMF	solid	4	24	1110	3.82	12.91	298	4	084.pdf	UiO-66
145	UiO-66/GO	Zr	BDC	solvothermal	DMF	solid	4	24	1016	3	52.3	298	4	084.pdf	UiO-66
146	UiO-66-NH ₂	Zr	BDC	solvothermal	DMF	solid	4	24	768	3.07	167.02	298	4	084.pdf	UiO-66
147	UiO-66-NH ₂ /GO	Zr	BDC	solvothermal	DMF	solid	4	24	740	3.41	0.94	298	4	084.pdf	UiO-66
148	HKUST-1	Cu	BTC	solvothermal	DMF	solid	2	21	434	3.45	1.96	298	4	084.pdf	HKUST-1
149	HKUST-1/GO	Cu	BTC	solvothermal	DMF	solid	2	21	369	1.86	13.74	298	4	084.pdf	HKUST-1
150	Cu-BTC	Cu	BTC	solvothermal	DMF/EtOH	solid	2	0.05	1760	5.33	S1: 20.0, S2: 22.7,	273	1	085.pdf	

											S3: 18.9				
151	Cu-BTC/GO10	Cu	BTC	solvothermal	DMF/EtOH	solid	2	0.05	1380	7.02	S1: 23.1, S2: 28.1, S3: 27.8	298	1	085.pdf	
152	aPPy/GO10			solvothermal	DIH ₂ O	solid		1	2640	4.16	S1: 8.6, S2: 12.0, S3: 14.4	298	1	085.pdf	
153	aPAni/GO10			solvothermal	DIH ₂ O	solid		12	1770	4.11	S1: 10.6, S2: 17.7, S3: 21.3	298	1	085.pdf	
154	Cu5BTC	Cu	C ₆ H ₃ (CO ₂) ₃			solid	2		892	69	20	25	15	086.pdf	
155	MOF/GO5U3	Cu		sonication	H ₂ O	solid	2	24	1367	4.23		30	1.01325	086.pdf	
156	Cu-BTC	Cu	BTC	sonication and heating		solid	2	24	892	7.09		298	15	088.pdf	
157	MOF/GO	Cu	BTC	sonication and heating		solid	2	24	1010	8.98		298	15	088.pdf	
158	MOF/GO; U3	Cu	BTC	sonication and heating		solid	2	24	1367	13.41		298	15	088.pdf	
159	Cu ₃ (BTC) ₂	Cu	BTC	ionic liquid-assisted growth	DMF/H ₂ O		2	8	2043	5.62	20.81	298	1	089.pdf	
160	Cu-BTC	Cu	BTC	solvothermal	DMF/EtOH	solid	2	20	892	3.371		323	1.15	090.pdf	
161	MOF/GO	Cu	BTC	in-situ synthesis	DMF/EtOH	solid	2	20	1080	3.371		323	1.15	090.pdf	
162	MOF/GO-Arg	Cu	BTC	in-situ synthesis	DMF/EtOH	solid	2	20	956	3.371		323	1.15	090.pdf	
163	HKUST-1	Cu	BTC	solvothermal	DMF	solid	2	24	1379.87	7.32	19.32	273	1	091.pdf	HKUST-1
164	HKUST-1@10UV-GO	Cu	BTC	in-situ growth	DMF	solid	2	24	1323.49	9.5	21	273	1	091.pdf	HKUST-1
165	HKUST-1@1UV-GO	Cu	BTC	in-situ growth	DMF	solid	2	24	1005.63	7.62	21.66	273	1	091.pdf	HKUST-1
166	GrO@MIL-101	Cr		hydrothermal					2950	22.4	32	298	25	092.pdf	MIL-101
167	MIL-101(Cr)	Cr	BDC	solvothermal	DMF/H ₂ O	solid	3	8	2486	28.65	6	298		093.pdf	MIL-101
168	MIL-101@GO (5wt%)	Cr	BDC	solvothermal	DMF/H ₂ O	solid	3	8	2872	32.19	6	298		093.pdf	MIL-101
169	MIL-53(Cr)	Cr	BDC	solvothermal		solid	3		1197	4.814		298		094.pdf	MIL-53
170	1GrO@MIL-53(Cr)	Cr	BDC	solvothermal		solid	3		1370	5.279		298		094.pdf	MIL-53

171	10GrO@MIL-53(Cr)	Cr	BDC	solvothermal		solid	3		1182	10.81	16	298		094.pdf	MIL-53
172	ZIF-8	Zn	2-methylimidazolate	coordination modulation		nanocrystals			1120	16.3599182		195	1.01325	095.pdf	ZIF-8
173	UiO-66/GO-5	Zr	BDC	hydrothermal	DMF	solid	4	24	1184	3.37		298	1	096.pdf	UiO-66
174	UiO-66	Zr	BDC	solvothermal	DMF	solid	4	24	1110	3.82	12.91	298	4	097.pdf	UiO-66
175	UiO-66-NH ₂	Zr	BDC	solvothermal	DMF	solid	4	24	768	3.07	167.02	298	4	097.pdf	UiO-66
176	HKUST-1	Cu	BTC	solvothermal	DMF	solid	2	21	434	3.45	1.96	298	4	097.pdf	HKUST-1
177	UiO-66/GO	Zr	BDC	solvothermal	DMF	solid	4	24	1016	3	52.3	298	4	097.pdf	UiO-66
178	JUC-32	Dy	BTC		DMF	nanoparticles			419.5	1.559293299		273		098.pdf	
179	MWCNTs@JUC32-1	Dy			DMF	grey powder			146	1.287141965		273		098.pdf	
180	MWCNTs@JUC32-2	Dy			DMF	grey powder			207	1.139912555		273		098.pdf	
181	MOF-5	Zn	BDC	hydrothermal	DMF	solid	2	18	290	0.64		298	4	099.pdf	MOF-5
182	MOF-5/GO	Zn	BDC	hydrothermal	DMF	solid	2	18	325	1.06		298	4	099.pdf	MOF-5
183	MOF-5/AGO	Zn	BDC	hydrothermal	DMF	solid	2	18	294	0.54		298	4	099.pdf	MOF-5
184	Co(bdp)	Co	bdp2a ²⁺ = C ₁₂ H ₈ N ₄	solvothermal	DEF	microcrystalline	2	108	2			298	5.8	100.pdf	
185	Fe(bdp)	Fe	bdp2a ²⁺ = C ₁₂ H ₈ N ₄	solvothermal	mixture of DMF/MeOH	microcrystalline	2		2			298	10	100.pdf	
186	NOTT-100a	Cu	Biphenyl-3,3',5,5'-tetracarboxylic acid (H ₄ btpc)	solvothermal	DMF/1/4/dioxane/H ₂ O	solid	2	72	1661			300	35	101.pdf	
187	NOTT-101a	Cu	Terphenyl-3,3',5,5'-tetracarboxylic acid (H ₄ tpc)	solvothermal	DMF/1/4/dioxane/H ₂ O	solid	2	72	2805			300	35	101.pdf	
188	NOTT-102a	Cu	Quaterphenyl-3,3',5,5'-	solvothermal	DMF/1/4/dioxane/H ₂ O	solid	2	72	3342			300	35	101.pdf	

			tetracarboxylic acid (H4qptc)												
189	NOTT-103a	Cu	5,5'-Naphthalene-diyl-diisophthalic acid	sonochemical	DMF/1/4/dioxane/H ₂ O	solid	2	24	2958			300	35	101.pdf	
190	NOTT-109a	Cu	5,5'-Naphthalene-diyl-diisophthalic acid	sonochemical	DMF/H ₂ O	solid	2	24	2110			300	35	101.pdf	
191	HKUST-M1	Cu			DMF/EtOH/H ₂ O		2		1850			298		102.pdf	
192	NiMMOF-M74	Ni					2		1350			298		102.pdf	
193	PCNM14								2000			298		102.pdf	
194	UTSAM20								1620			298		102.pdf	
195	NUM125								3120			298		102.pdf	
196	NUM111								4930			298		102.pdf	
197	macro-meso-Cu-BDC	Cu	BDC	solvent evaporation-induced co-assembly	EtOH	solid		8	592	2.208887303	77%	273	1	103.pdf	
198	ZJU-800	Zr	F-H2PDA	solvothermal	DMF			96	1625					104.pdf	
199	Ni2(dobdc)	Ni	dobdc4-				2		1593			25		105.pdf	
200	Cu3(btc)2	Cu	btc3-				2		2203			25		105.pdf	
201	Co2(dobdc)	Co	dobdc4-				2		1433			25		105.pdf	
202	Cu2(adip)	Cu	adip4-				2		1984			25		105.pdf	
203	Mg2(dobdc)	Mg	dobdc4-				2		1957			25		105.pdf	
204	Mg/DOBDC	Mg	H4DOBDC (DOBDC)	solvothermal	DMF/EtOH/H ₂ O	microcrystalline			1495	7.998182231		296	1.01325	106.pdf	
205	Co/DOBDC	Co	H4DOBDC (DOBDC)		H ₂ O or DMF				1080	6.952965235		296	1.01325	106.pdf	
206	Ni/DOBDC	Ni	H4DOBDC (DOBDC)		H ₂ O or DMF				1070	5.816859805		296	1.01325	106.pdf	
207	Zn/DOBDC	Zn	H4DOBDC (DOBDC)		H ₂ O or DMF				816	5.544194501		296	1.01325	106.pdf	
208	Cu-BTC	Cu	Benzene-	solvothermal	DMF/EtOH/H ₂ O	solid	1		1492			298		107.pdf	

			1,3,5-tricarboxylate (BTC)												
209	[Cu ₃ (btc) ₂ (H ₂ O) ₃] (HKUST-1)	Cu	btc (benzene-1,3,5-tricarboxylate)	solvothermal		solid		5						108.pdf	HKUST-1
210	PCN-68	Cu	dendritic hexacarboxylate (ptei)	solvothermal	H ₂ O/dmf	microcrystalline	2		6033	30.4		298		109.pdf	
211	PCN-610	Cu	dendritic hexacarboxylate (ttei)	solvothermal	H ₂ O/dmf		2		4160			298		109.pdf	
212	[Cu ₃ (TDPAH)(H ₂ O) ₃]/C113H ₂ O/C18DMA	Cu	TDPAH (2,5,8-tris(3,5-dicarboxylphenylamino)-s-heptazine)	solvothermal	DMA/H ₂ O	solid	2		2540	17.1	20.3:1 at 298 K	273	1.0132 ₅	110.pdf	
213	[Cd ₃ Na ₆ (BTC) ₄ (H ₂ O) ₁₂] $\cdot$ H ₂ O	Cd, Na	BTC	microwave-assisted	DMA	solid	2	1	526	5.2	50	298	1	111.pdf	
214	CPM-200-Fe/Mg	Fe/Mg		cooperative crystallization	DMA/H ₂ O		2		1620	9.27	201	273		112.pdf	
215	CPM-200-In/Mg	In/Mg		cooperative crystallization	DMA/H ₂ O		2		1620	8.52	48	273		112.pdf	
216	CPM-200-V/Mg	V/Mg		cooperative crystallization	DMA/H ₂ O		2			6.94	406	273		112.pdf	
217	Zn ₄ (pydc) ₄ (DMF) ₂ $\cdot$ 3DMF (1)	Zn	2,5-pyridinedicarboxylate (pydc)	solvothermal	DMF	solid		48	196		42	273	1.0132 ₅	113.pdf	
218	Zn ₂ (pydc) ₂ (DEF) (2)	Zn	2,5-pyridinedicarboxylate (pydc)	solvothermal	DEF	solid		72	5			273		113.pdf	
219	MOF-69C:	Zn	BDC	reported procedure	DEF	solid			11					113.pdf	

	Zn ₃ (OH) ₂ (bdc) ₂ Â·2DEF														
220	SNU-1000	Zn	TCPT	solvothermal	DMF	solid		24	814	3.2	25.5	298	1.0132 5	114.pdf	
221	SNU-1000-Li	Li	TCPT	post-synthetic exchange	MeOH	solid	1	12	924	3.476482618	37.8	298	1.0132 5	114.pdf	
222	SNU-1000-Mg	Mg	TCPT	post-synthetic exchange	MeOH	solid		12	959	3.4310384	32.6	298	1.0132 5	114.pdf	
223	SNU-1000-Ca	Ca	TCPT	post-synthetic exchange	MeOH	solid		12	935	3.4310384	40.4	298	1.0132 5	114.pdf	
224	SNU-1000-Co	Co	TCPT	post-synthetic exchange	MeOH	solid		12	1000	3.817314247	31	298	1.0132 5	114.pdf	
225	SNU-1000-Ni	Ni	TCPT	post-synthetic exchange	MeOH	solid		12	982	3.77187003	37.4	298	1.0132 5	114.pdf	
226	UiO-66	Zr, Ti		post-synthetic exchange	THF		4	24	1844	4		273	1.0132 5	115.pdf	UiO-66
227	Cd-MOF	Cd	H4L (C ₂₄ H ₂₂ O ₈)	solvothermal	DMF	colorless crystals	2	48						116.pdf	
228	Eu@MOF	Eu		postsynthetic metal exchange		luminescent	3	600						116.pdf	
229	Tb@MOF	Tb		postsynthetic metal exchange		luminescent	3	600						116.pdf	
230	Cd-4TP-1	Cd	4-tetrazole pyridine (4-TP)	solvothermal	DMF	colorless plate crystals			472.2	2.7		273	1.0132 5	117.pdf	
231	IFMC-1	Zn	H3L (4,5-di(1H-tetrazol-5-yl)-2H-1,2,3-triazole)	solvothermal	DMA	colorless block crystals		72	780	7.446238958	50.3:1 at 273 K	195	1.0132 5	118.pdf	
232	NTU-105	Cu	5,5â€™,5â€™,4â€™,4â€™-bis(4,4â€™,4â€™-tris(1H-1,2,3-triazole-4,1-diyl))trisop	solvothermal	DMF	crystalline	2	72	3543	8.342999911		273	1.0132 5	119.pdf	

			ththalic acid												
233	[Mn2(Hcbptz)2(Cl)(H2O)]Cl·0.5CH3CN	Mn	Hcbptz	solvothermal	DMF/CH3CN	crystalline		72	628	3.135650988	177.4	298	1	120.pdf	
234	H3[(Cu4Cl)3(BTTri)8]	Cu	H3BTTri	mixture reaction	DMF/aqueousHCl	purple powder			1770	3.24	10:1 at 0.09 bar and 21:1 at 1 bar	195	1	121.pdf	
235	1-en	Cu	H3BTTri	post-synthetic modification	Toluene	blue solid		12	345	1.27	13:1 at 0.1 bar and 25:1 at 1 bar	298	1	121.pdf	
236	mmen-CuBTTri	Cu	BTTri (1,3,5-tri(1H-1,2,3-triazol-4-yl)benzene)	chemical grafting	Anhydroushexane	solid	2	18	870	4.2	327	298	0.15	122.pdf	
237	en-Mg2(dobpdc) (1-en)	Mg	H4DOBPDC	microwave-assisted solvothermal	DMF/EtOH	white powder	2	0.25	1253	4.57	70,000	298	1	123.pdf	
238	PEI-MIL-101	Cr	BDC	wet impregnation	MeOH	solid	3	8	113	5	113	298	0.15	124.pdf	MIL-101
239	IRMOF-74-III	Mg	H4DH3PhDC	solvothermal	DMF/EtOH/H2O	microcrystalline solid	2	20	2680	0.8		298	1.066576	125.pdf	IRMOF-74
240	Mg-MOF-74	Mg					2					293		126.pdf	MOF-74
241	Mn-MOF-74	Mn					2							126.pdf	MOF-74
242	Cu-MOF-74	Cu					2				higher than H2O			126.pdf	MOF-74
243	Zn-MOF-74	Zn					2							126.pdf	MOF-74
244	Mg2(dondc)	Mg	H4dondc	microwave-assisted	DEF/THF/MeOH	yellow solid	2	1.5	1553	4.8	41	298	0.15	127.pdf	
245	1-en	Mg	H4dondc	post-synthetic modification	Toluene	solid	2	17	40	1.99	116	298	0.15	127.pdf	
246	1-mmen	Mg	H4dondc	post-synthetic	Toluene	solid	2	17	99	3.2	69	298	0.15	127.pdf	

				modification											
247	1-ppz	Mg	H4donde	post-synthetic modification	Chloroform	solid	2	17	47	2.04	6516	298	0.15	127.pdf	
248	MIL-101(Cr)	Cr	2-aminoBDC	hydrothermal	H ₂ O	nanoparticles	3	12	1675	25	12	273.4	1	128.pdf	MIL-101
249	UiO-66	Zr	BDC	solvothermal	DMF		4		1105		10.1	298		129.pdf	UiO-66
250	UiO-66-NH ₂	Zr	2-aminoBDC	solvothermal	DMF		4		1123		17	298		129.pdf	UiO-66
251	UiO-66-NO ₂	Zr	2-nitro-BDC	solvothermal	DMF		4		792		12.3	298		129.pdf	UiO-66
252	UiO-66-1,4-Naphyl	Zr	1,4-naphthalene-dicarboxylic acid	solvothermal	DMF		4		757		6.5	298		129.pdf	UiO-66
253	UiO-66-2,5-(OMe) ₂	Zr	2,5-dimethoxy-BDC	solvothermal	DMF		4		868		18	298		129.pdf	UiO-66
254	SIFSIX-3-Ni	Ni	pyrazine (pyz)	solvent-free and solvothermal	MeOH	powder		4				298		130.pdf	SIFSIX-3
255	SIFSIX-1-Cu	Cu	4,4'-bipyridine			solid	2		3140	5.41	140	298		131.pdf	
256	SIFSIX-2-Cu	Cu	4,4'-dipyridylacetylene			solid	2		3140	1.84	33	298		131.pdf	
257	SIFSIX-3-Zn	Zn	pyrazine			solid	2		250	2.58	495	298		131.pdf	SIFSIX-3
258	SIFSIX-3-Cu	Cu	Pyrazine	layering	MeOH	powder		24	300	1.24	10500	298	0.01	132.pdf	SIFSIX-3
259	Zn-aminotriazolate-oxalate	Zn	Oxalate	solvothermal	H ₂ O	solid	2	48	782	4.35		273	1.2	133.pdf	
260	CAU-1	Al	H ₂ Nâ€‘BDC	solvothermal	MeOH	microcrystalline	3	5	1268	7.2	101:01:00	273	1.01325	134.pdf	
261	UiO-66-(CH ₃) ₂	Zr	2,5-dimethylBDC	solvothermal		solid	4		868	5.816859805	58	273	1	135.pdf	UiO-66
262	SMT-1-DMA	Cu (II)	H ₂ L1	coordination assembly	DMA	phase-pure crystals	2		153.7	2.32	4 CO ₂ molecules per SMT-1 molecule	196	1.01325	136.pdf	
263	PCN-88	Cu (II)	H ₄ L3	solvothermal	H ₂ O/DMA		2	48	3308	7.14		273	1.0132	136.pdf	

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264	BUT-10	Zr	9-fluorenone-2,7-dicarboxylic acid (H2FDCA)	solvothermal	DMF	solid	4	10	1848	2.257517623	5.1	298	1.01325	137.pdf	
265	BUT-11	Zr	dibenzo[b,d]thiophene-3,7-dicarboxylic acid 5,5-dioxide (H2DTDAO)	solvothermal	DMF	solid	4	48	1310	2.386901044	9	298	1.01325	137.pdf	
266	Zr-btdc	Zr	2,20-bithiophene-5,50-dicarboxylic acid (H2btdc)	solvothermal	N/N'/DMF	octahedron-shaped pale yellow crystals	4	120	2207	4.05		273		138.pdf	
267	bio-MOF-1	Zn	BPDC	cation exchange	EtOH		2	264	1570			273	1	139.pdf	MOF-1
268	S Cu	Cu	5,10,15,20-Tetrakis(4-carboxyphenyl) porphyrin (TCPP)		DMF	solid	2	48		6.303112929		298	1.01325	140.pdf	
269	S P	Al	5,10,15,20-Tetrakis(4-carboxyphenyl) porphyrin (TCPP)		H ₂ O	solid	3	24		3.478754828		298	1.01325	140.pdf	
270	IFP-8	Co	imidazolate-4-amide-5-imidate (L2)	solvothermal	DMF					1.204604265	34:1 for CO ₂ /N ₂	298	1	141.pdf	
271	Co (II)14-MOC	Co	imidazolate-4,5-diamide-2-olate (L3)	solvothermal	DMF									141.pdf	
272	PCN-200	Cu	dpp (1,3-	one-pot	H ₂ O	solid	2	24			260	195	1	142.pdf	

			di(4-pyridyl) propane)	synthesis							(50:50)				
273	{Co 3O(HBT C) 2(H ₂ O) (DMF)} n(1)	Co	BTC	solvothermal	DMF	single crystals		48	340.6	3.827964665		273	1.0132 5	143.pdf	
274	{Co 2(BTC)Cl (DEF) 3}n(2)	Co	BTC	solvothermal	DEF	single crystals		48	17.4	0.539841171		273	1.0132 5	143.pdf	
275	{Co 3O(BTB) 2(DMF) /C12(N(C H 3)2)/C1(H 2O)} n(3)	Co	4,40,400- benzene- 1,3,5- triyltribenz oate (BTB)	solvothermal	DMF	single crystals		48	121.6	1.289372713		273	1.0132 5	143.pdf	
276	{Co 3(HCOO) (BTB) 2(DEF) /C1(N(C 2H5)2)}n(4)	Co	4,40,400- benzene- 1,3,5- triyltribenz oate (BTB)	solvothermal	DEF	single crystals		48				273	1.0132 5	143.pdf	
277	HKUST-1	Cu	BTC	solvothermal	EtOH/H ₂ O	solid	2	12	1326	1.82		303	10	144.pdf	HKUST-1
278	MIL-101(Cr)	Cr	BDC	hydrothermal	EtOH/H ₂ O	solid	3	8	2549	1.17		303	10	144.pdf	MIL-101
279	MIL-100	Cr	BTC	solvothermal	H ₂ O	solid	3	96	1900	280		303		145.pdf	MIL-100
280	MIL-101	Cr	BDC	solvothermal	hotEtOH/aqueoussol utionNH4F	solid	3	8	4230	390		303		145.pdf	MIL-101
281	Cu-BTC	Cu	BTC						892	8.18		298	15	146.pdf	
282	MOF/GO	Cu	BTC						1010	10.23		298	15	146.pdf	
283	MOF/GO; U1	Cu	BTC						864	7.39		298	15	146.pdf	
284	MOF/GO; U2	Cu	BTC						936	10.45		298	15	146.pdf	
285	MOF/GO; U3	Cu	BTC						1367	15	9.57	298	15	146.pdf	
286	SNU-150	Zn	H3NTN	solvothermal	DMA	solid		24	1852	1.383776414	5.93	298	1.0132 5	147.pdf	
287	SNU-151	Zn	H3NTN	solvothermal	DEF	solid		24	1563	3.203817314	30	298	1.0132 5	147.pdf	

288	(Me ₂ NH ₂) ₆ [In ₁₀ (TCA) ₁₂] Å·24DMF Å·15H ₂ O	In	TTCA	solvothermal	DMF/1/4/dioxane	block-shaped crystals	3	72	726.8	4.69	24 at 273 K with CO ₂ /CH ₄	273	1.0132 ₅	148.pdf	
289	{[Zn ₂ .66O _{0.66} (L) ₂] Å·2H ₂ O}	Zn	2,2-bis-trifluoromethyl-biphenyl-4,4-dicarboxylic acid (H ₂ L)	hydrothermal	H ₂ O	solid		72	780	6.998	32.281 cm ³ /g	273		149.pdf	
290	ZJNU-40	Cu	[5,5'-benzo[c][1,2,5]thiadiazole-4,7-diyl]diisophthalic acid	solvothermal	DEF/H ₂ O	blue rhombic crystals	2		2209	4.818417061		296	1.0132 ₅	150.pdf	
291	MOF-205-NH ₂	Zn	1-aminonaphthalene-3,7-dicarboxylate	solvothermal	DMF/EtOH	crystalline	2	48	4330	0.994913893	6.5	253	1	151.pdf	
292	MOF-205-NO ₂	Zn	1-nitronaphthalene-3,7-dicarboxylate	solvothermal	DMF	crystalline	2	48	3980	0.981529401	2.7	273	1	151.pdf	
293	MOF-205-OBn	Zn	1,5-dibenzoxo-2,6-naphthalene dicarboxylate	solvothermal	DMF/EtOH	crystalline	2	48	3470	1.325064692	2.7	298	1	151.pdf	
294	MOF-2													152.pdf	
295	MOF-505													152.pdf	
296	MOF-74													152.pdf	MOF-74
297	Cu ₃ (BTC) ₂	Cu												152.pdf	
298	IRMOF-1	Zn												152.pdf	IRMOF-1
299	IRMOF-3	Zn												152.pdf	IRMOF-3

300	IRMOF-6	Zn												152.pdf	
301	MOF-177									33.5			35	152.pdf	
305	Cu ₃ (BTC) ₂	Cu	BTC											152.pdf	
306	IRMOF-1													152.pdf	IRMOF-1
307	MOF-177									33.5			35	152.pdf	
308	Mg-MOF-74	Mg	C72H18O5 4			solid	2			16.6		298	1.01	153.pdf	MOF-74
309	Zn-MOF-74	Zn	C72H18O5 4			solid	2			1.6		298	1.01	153.pdf	MOF-74
310	NJFU-2	Co	5-(pyrimidin-5-yl)isophthalic acid	solvothermal	DMA/MeOH			72	1223	1.395137469	CO ₂ /CH ₄ : 26.1, CO ₂ /N ₂ : 195.1	298	0.15	154.pdf	
311	UTSA-72	Zn	3,3,6,6'-bis(pyrene-1,3,6,8-tetrayl)tetra benzoic acid (H4PTTB)	solvothermal	DMF	microporous	2	48	173	0.968144909	61.6	273	1.01325	155.pdf	
312	NOTT-125	Cu	H4L=oxalylbis(azanediyl)diisophthalic acid	solvothermal	DMA/H ₂ O	crystalline		48	2471	9.09	20.7:1 (273 K vs N ₂)	273	1	156.pdf	
313	PCNp72	Mg	TTTP (2',3',5',6'-tetramethyl p[1,1':4',1''-terphenyl]-4,4'-dicarboxylate)	solvothermal	DMA(N/N-Dimethyl acetamide)/EtOH/DMSO(Dimethylsulfoxide)	colorless needle shaped crystals	2	72	5.9			295		157.pdf	
314	Pb-DDQ	Pb	DDQ2a''	solvothermal	DMF/H ₂ O	yellow crystals	2	72						158.pdf	
315	Zn-DDQ	Zn	DDQ2a''	solvothermal	DMF/H ₂ O	white crystals	2	72		2.908429902		273	1.066576	158.pdf	
316	Cu-DDQ	Cu	DDQ2a''	solvothermal	DMF/H ₂ O	green crystals	2	72		5.930470348	high	273	1.066576	158.pdf	
317	NENU-520	Zn	H2L (4-(1H-tetrazole-5-	solvothermal	DMF/EtOH	solid		72	387	3.567371052	400	298	1	159.pdf	

			yl) biphenyl-4- carboxylic acid)												
318	eea-MOF-4	Cu	5- (isonicotina mido) isophthalic acid (H2L1)	solvothermal	N/N0/dimethylaceta mide (DMA)/aceticacid(H OAc)	green block microcrys tals		24	1860	0.56	39.3	298	1	160.pdf	
319	eea-MOF-5	Cu	5- (nicotinami do) isophthalic acid (H2L2)	solvothermal	N/N0/dimethylaceta mide (DMA)/aceticacid(H OAc)	green block microcrys tals		24	1200	0.94	39.3	298	1	160.pdf	MOF-5
320	rtl-MOF-2	Cu	5-(pyridin- 4-ylamino) isophthalic acid (H2L3)		N/N0/DMF/EtOH/H2 O									160.pdf	
321	rtl-MOF-3	Cu	5-(pyridin- 3-ylamino) isophthalic acid (H2L4)											160.pdf	
322	rtl-MOF-4	Cu	5- (pyrimidin- 5-ylamino) isophthalic acid (H2L5)											160.pdf	
323	NJFU-2	Co	5- (pyrimidin- 5-yl) isophthalic acid	solvothermal	DMA/MeOH			72	1223	2.976596228	26.1	273	0.15	161.pdf	
324	1	Co	1,3,6,8- tetra(3,5- dicarboxylp henyl) pyrene (H8tdcppy)	solvothermal	DMF/MeOH/H2O	solid	2	36	625	3.726425812		273	1.0132 5	162.pdf	
325	JUC-132	Cd	H12TDDP	solvothermal	DMAc/H2O				253	2.72	35.5	273	1.0132	163.pdf	

			B										5		
326	UiO-66(Zr)	Zr	BDC	solvothermal	DMF	solid	4	24	1730	2.2	33.26	298	1	164.pdf	UiO-66
327	UiO-66-(COONa)2-EX	Zr	BTEC	post-synthetic modification	H ₂ O	solid	4	120		1.98	33.26	298	1	164.pdf	UiO-66
328	UiO-66-(COOLi)4-EX	Zr	BTEC	post-synthetic modification	H ₂ O	solid	4	120		2.34	26.62	298	1	164.pdf	UiO-66
329	MIL-91(Al)	Al	N,N'-piperazine-bismethylene-phosphonate	solvothermal	H ₂ O	solid	3		310			303	50	165.pdf	
330	MOF-888	Ni	H6CPB	solvothermal	DMF	crystalline	3	48	40	24	57	298	1.066576	166.pdf	
331	MOF-889	Mg	H6CPB	solvothermal	DEF/EtOH/H ₂ O	crystalline	2	24	144	55	25	298	1.066576	166.pdf	
332	MOF-890	Cu	H6CPB	solvothermal	DMF/H ₂ O	crystalline	2	18	295	58	63	298	1.066576	166.pdf	
333	MOF-891	Cu	H6CPB	solvothermal	DEF/H ₂ O	crystalline	2	16	200	58	56	298	1.066576	166.pdf	
334	(Me ₂ NH ₂) ₆ [In ₁₀ (TCA) ₁₂] $\cdot$ 24DMF $\cdot$ 15H ₂ O	Indium (In)	triphenylene-2,6,10-tricarboxylate (TTCA)	solvothermal	DMF/1/4/dioxane	colorless block-shaped crystals	3	72	726.8	4.69	24 (17 at 298 K)	273	1.01325	167.pdf	
335	LIFM-10	Cu	H ₂ INIA	solvothermal			2		1550	4.612588048		273		168.pdf	
336	LIFM-11	Cu	H ₂ INOIA	solvothermal			2		1176	4.612588048		273		168.pdf	
337	[Zn ₂ (1)(DMF) ₂] _n	Zn	4,40,400,4%-benzene-1,2,4,5-tetrayltetrabenzoic acid	solvothermal	DMF	solid		24	800			298	18	169.pdf	
338	[Zn ₂ (1)(py- <i>CF</i> ₃) ₂] _n	Zn	4,40,400,4%-benzene-1,2,4,5-tetrayltetrabenzoic acid	post-synthetic modification	CHCl ₃	solid		24	390		33.5	298	18	169.pdf	
339	[Zn ₂ (1)(py- <i>R</i>) ₂] _n	Zn	4,40,400,4%-benzene-1,2,4,5-	post-synthetic modification		solid								169.pdf	

			tetrayltetrab enzoic acid												
340	[Fe2(BPE B)3]	Fe	H2BPEB	solution-phase one-pot reaction	DMF	solid	3	6	1598	9.202453988	25	298	10	170.pdf	
341	[Ni(BPEB)]	Ni	H2BPEB	solution-phase one-pot reaction	Pyridine	solid	2	8	2378	11.58827539	21	298	10	170.pdf	
342	a- [Zn(BPE B)]	Zn	H2BPEB	solution-phase one-pot reaction	Pyridine	solid	2	6	1224	8.202681209	19	298	10	170.pdf	
343	b- [Zn(BPE B)]	Zn	H2BPEB	microwave- assisted synthesis	DMF	solid	2	0.41666 6667						170.pdf	
344	TMU-4	Zn	4,4'- oxybisbenz oic acid (H2oba) and 1,4- bis(4- pyridyl)- 2,3-diaza- 1,3- butadiene (4-bpdb)	mechanosynthe sis	DMF	crystalline powder		72	517.9	6.643169448	28:01:00	273	1	171.pdf	
345	TMU-5	Zn	4,4'- oxybisbenz oic acid (H2oba) and 2,5- bis(4- pyridyl)- 3,4-diaza- 2,4- hexadiene (4-bpdh)	mechanosynthe sis	DMF	crystalline powder		72	502.7	6.374587312	32:01:00	273	1	171.pdf	
346	ZIF-68	Zn	bIm	solvothermal			2		1090					172.pdf	
347	ZIF-69	Zn	cbIm	solvothermal			2		950					172.pdf	
348	ZIF-70	Zn	Im	solvothermal			2		1730					172.pdf	
349	ZIF-78	Zn	nbIm	solvothermal			2		620					172.pdf	
350	ZIF-79	Zn	mbIm	solvothermal			2		810					172.pdf	
351	ZIF-80	Zn	dcIm	solvothermal			2							172.pdf	
352	ZIF-81	Zn	bbIm	solvothermal			2		760					172.pdf	
353	ZIF-82	Zn	cnIm	solvothermal			2		1300					172.pdf	
354	ZIF-95	Zn	5- chlorobenzi	solvothermal	DMF/H2O	solid		72	1240			273		173.pdf	

			midazole (cbIM)												
355	ZIF-100	Zn	5- chlorobenzi midazole (cbIM)	solvothermal	AnhydrousDMF	solid		48	780	1.7		273		173.pdf	
356	NUSy5	Zn	4ypyrazole carboxylic acid (PyC)	solvothermal	Dimethylacetamide (DMA)/Isopropanol/ H2O(v/v/v/2/2/1)	solid	2	72	409.8	1.82	34.8 to 45.9	298	1	174.pdf	
357	TbL	Tb	H3L (3((3,5(dica rboxylphen yl)(5((4(car boxylpheny l)(1(H(1,2,4 (triazole)	solvothermal	DMF/H2O	light yellow crystals	3	72	726	1.772552869	117.4 (CO ₂ /N ₂)	293	1	175.pdf	
358	[Zn(atz)2] (MAF-66)	Zn	3-amino- 1,2,4- triazolate (atzâˆ²))	acidâˆ©base neutralization	iPrOH	colorless crystals		72	1014	6.26	403 at 273 K	273	1.0132 5	176.pdf	
359	Cu-BTC	Cu	BTC	solvothermal	EtOH		2	24	1116	1.067636299		298		177.pdf	
360	UiO-66	Zr	BDC	solvothermal	DMF		4	24	1272	0.850807531		298		177.pdf	UiO-66
361	UiO- 66/Cu- BTC	Cu and Zr	BTC	solvothermal	DMF/EtOH		2	24	693	1.419202284		298		177.pdf	UiO-66
362	Cu- BTC/UiO -66	Cu and Zr	BTC	solvothermal	DMF/EtOH		2	24	255	1.321495494		298		177.pdf	UiO-66
363	Mn-BTC	Mn	BTC	hydrothermal	DMF/H2O	solid		9	24.97		96.05%		30	178.pdf	
364	Ni-BTC	Ni	BTC	hydrothermal	DMF/H2O	solid		9	14.09		97.31%			178.pdf	
365	Co-BTC	Co	BTC	hydrothermal	DMF/H2O	solid		9	16.33		92.48%			178.pdf	
366	UiO-66	Zr	BDC	solvothermal	DMF	microcrys talline	4	12	1580	77		50		179.pdf	UiO-66
367	UiO-66- NH2	Zr	BDC	solvothermal	DMF	microcrys talline	4	12	1112	42		50		179.pdf	UiO-66
368	UiO-66- NO2	Zr	BDC	solvothermal	DMF	microcrys talline	4	12	756	46		50		179.pdf	UiO-66
369	UiO-66- Cl	Zr	BDC	solvothermal	DMF	microcrys talline	4	12	610	40		50		179.pdf	UiO-66
370	UiO-66- Br	Zr	BDC	solvothermal	DMF	microcrys talline	4	12	851	42		50		179.pdf	UiO-66
371	UiO-66- OH	Zr	BDC	solvothermal	DMF	microcrys talline	4	2	1000	53		140		179.pdf	UiO-66
372	UiO-66-	Zr	BDC	solvothermal	DMF	microcrys	4	2	557	25		140		179.pdf	UiO-66

	(OH) ₂					talline									
373	UiO-66-naphthyl	Zr	BDC	solvothermal	DMF	microcrystalline	4	2	615	46		140		179.pdf	UiO-66
374	UiO-66	Zr	BDC	solvothermal		pellets	4		1059			298	0.025	180.pdf	UiO-66
375	Ca-A	Calcium (Ca)	SiO ₄ /AlO ₄ tetrahedrons	ion exchange	H ₂ O/Ca(NO ₃) ₂	microporous	2			3.81		313		181.pdf	
376	SIFSIX-3-Cu	Cu	pyrazine	self-assembly		ultramicro porous	2			1.24		298		181.pdf	SIFSIX-3
377	dmpn-Mg ₂ (dobpdc)	Mg	H4DOBPDC	post-synthetic modification			2			2.7		298		181.pdf	
378	NNU-28	Zr	Carboxylate ligand	solvothermal	DMF/benzoic acid	solid	4				Not specified			182.pdf	
379	Cu-MOF	Cu	Not specified	microwave-assisted	Not specified	solid	0				Not specified			182.pdf	
380	Ag@MIL-101	Ag	Not specified	liquid impregnation	Not specified	solid	0				Not specified			182.pdf	MIL-101
381	MIL-100(Fe)	Fe	Not specified	not specified	Not specified	solid					Not specified			182.pdf	MIL-100
382	UiO-66	Zr	BDC	solvothermal	DMF	solid	4	10	1337.1					183.pdf	UiO-66
383	Cu-Zn@UiO-66	Cu, Zn	BDC	deposition-precipitation	H ₂ O (mixed aqueous solution)	solid		5			49.20%			183.pdf	UiO-66
384	MIL-101	Cr	BDC	solvothermal	n/hexane/H ₂ O	solid	3	8	3361					184.pdf	MIL-101
385	20Ni@MIL-101(DSM)	Ni	BDC	double solvent method	n/hexane/H ₂ O	solid	2	5	3297					184.pdf	MIL-101
386	20Ni@MIL-101(IM)	Ni	BDC	multiple impregnation method	H ₂ O	solid	2	16	3284					184.pdf	MIL-101
387	Zn/Co-ZIF	Zn, Co	2-methylimidazole	spray drying	MeOH	solid		8	694	48.79	100%	273	0.1	185.pdf	
388	MoO ₃ -x/g-C ₃ N ₄	Mo	g-C ₃ N ₄	in-situ hydrothermal	EtOH	2d nanosheets	5	12	36.25					186.pdf	
389	MOF-74(Ni)-24-140	Ni	H4DOBDC	condensation reflux approach	DMF/EtOH/H ₂ O	powder	2	24	1129	8.29	26.8	298	1	187.pdf	MOF-74
390	ZIF-8	Zn	HmIM	in situ flow synthesis	H ₂ O	membrane	2	6			4.9			188.pdf	ZIF-8
391	ZIF-67	Co	HmIM	in situ flow	H ₂ O	membrane	2							188.pdf	ZIF-67

				synthesis											
392	polyILs@MIL-101	Cr	Br/C0	in situ polymerization			3	24						189.pdf	MIL-101
393	MIL-101-IP	Cr	Br/C0				3	68					1	189.pdf	MIL-101
394	mesoCu@Al-bpydc	Al	bipyridine	wet-impregnation			3	24					10	189.pdf	
395	Ag@MIL-101	Ag		liquid impregnation	DMF		0	15					1	189.pdf	MIL-101
396	Au12Ag32(SR)30@ZIF-8	Au, Ag		anionic self-assembly				24			100%		1	189.pdf	ZIF-8
397	0.5Ag@ZIF-8	Ag		rapid contacting	MeOH		0	20					1	189.pdf	ZIF-8
398	ZIF-68	Zn	benzimidazole, 2-nitroimidazole	hydrothermal	DMF	solid		12			99.00%		10	190.pdf	
399	ZIF-8	Zn	dimethylimidazole	in situ synthesis			2		1323.18					191.pdf	ZIF-8
400	Bi2S3/ZIF-8	Bi		in situ synthesis		composite		12	805.94		74.20%			191.pdf	ZIF-8
401	ZIF-67	Co	2-methylimidazole	co-precipitation	MeOH	solid	2	24	1844.303					192.pdf	ZIF-67
402	CdS-P25/ZIF-67	Cd, Ti, Co		hydrothermal	De/ionizedH2O	solid	2	18	56.001					192.pdf	ZIF-67
403	Bi-MOF	Bi	BTC	solvothermal	DMF/MeOH	nanosheets		24	21.1	0.301597216		298.15	1	193.pdf	
404	BiOC/Bi-MOF	Bi	Cl	in situ growth	Diethyleneglycol(DG)	nanohybrid		24	19.6	0.722762559		298.15	1	193.pdf	
405	JBp	Zn	zinc(II) dibromide	solvothermal		solid		5			>99.9%		20	194.pdf	
406	JBm	Zn	zinc(II) dibromide	solvothermal		solid		5			>99.9%		20	194.pdf	
407	Au/Uio-66-NH2/Gra-phenene	Au	2-aminoBDC	photoreduction and hydrothermal	DMF/MeOH	solid		24	604	49.9	80.90%			195.pdf	UiO-66
408	ZIF-7	Zn	blm	sonication	DMF	solid	2	1				308	5	196.pdf	
409	ZIF-8	Zn	mIm	sonication	DMF	solid	2	1				308	5	196.pdf	ZIF-8
410	ZIF-90	Zn	Ica	sonication	DMF	solid	2	1				308	5	196.pdf	
411	Co-MOF-	Co	2,5-	microwave-	DMF/EtOH/H2O	solid	2	1	1314	6.54396728	>25:1	298	1	197.pdf	MOF-74

	74(M)		dihydroxy benzenedic arboxylic acid	assisted											
412	Co-MOF-74(S)	Co	2,5-dihydroxy benzenedic arboxylic acid	solvothermal	MeOH	solid	2	24	1327		>25:1	298	1	197.pdf	MOF-74
413	F-ZIF-90	Zn	Imidazolate	solvothermal	DMF	solid		18	763		97.90%	393	11.7	198.pdf	
414	ZIF-7	Zn	C7H6N2	solvothermal	DMF	solid		168						199.pdf	
415	C-Fe30	Fe	nitrogen-doped carbon	pyrolysis and acid leaching	EtOH/H2O mixture	solid		2						199.pdf	
416	C-Fe30-N15/30	Fe	nitrogen-doped carbon	ammonia treatment and pyrolysis	NH3	solid		0.5	3					199.pdf	
417	C-Fe30-N15/60	Fe	nitrogen-doped carbon	ammonia treatment and pyrolysis	NH3	solid		1	3					199.pdf	
418	C-Fe30-N30/30	Fe	nitrogen-doped carbon	ammonia treatment and pyrolysis	NH3	solid		0.5	3					199.pdf	
419	ZIF-8-90	Zn	2-methylimidazole	solvothermal	MeOH	solid		24	1437	3.4	99%	273	1	200.pdf	ZIF-8
420	Zn-URJC-8	Zn	2-aminoBDC	sonochemical	DMF/H2O	solid		72		1.28		298	15	201.pdf	
421	ZIF-67	Co	2-methylimidazole	one-pot synthesis	H2O	heterogeneous		3	1374		>99%	293	7	202.pdf	ZIF-67
422	CPO-27-Mg/TiO2	Mg, Ti	DOBDC	hydrothermal self-assembly	THF/H2O	nanocomposite	2	72	416.81	7.998182231		273		203.pdf	
423	Zn-MOF nanosheets	Zn	5,10,15,20-tetrakis(4-carboxyphenyl) porphyrin (TCPP)	sonochemical	DEF/DMF/EtOH	2d nanosheet		16	445	4.631034175	91.00%			204.pdf	
424	Zn-MOF bulk	Zn	5,10,15,20-tetrakis(4-carboxyphenyl) porphyrin			bulk			295	2.67243687	89.50%			204.pdf	

			(TCPP)												
425	UIO-66-NH2/GR	Zr	Amino group	microwave-assisted	DMF	powder		0.666666667	791.2	3.256893013	78.60%	273		205.pdf	
426	Ni3(HITP)2	Ni	HITP	solvothermal	acetonitrile/ultrapure H2O	nanosheets		2	630		97%		0.8	206.pdf	
427	Zn20Fe1-ZIF	Zn, Fe	2-methylimidazole	solution synthesis	MeOH	nanocrystals	2	24						207.pdf	
428	FeSAs/CNF-900	Fe	2-methylimidazole	pyrolysis	MeOH	mesoporous carbon nanoframes		3	1164.6		86.90%			207.pdf	
429	[SnIV(TPP)(ClO4)2]	Sn	TPP	catalytic system	DMF	solid	4	5						208.pdf	
430	Mg-MOF-74	Mg					2		1174	8.6				209.pdf	MOF-74
431	MIL-101 (Cr)	Cr					3		3324	2.52				209.pdf	MIL-101
432	JLU-MOF58	Zr					4		3663					209.pdf	
433	ZIF-8	Zn					2		1437	360				209.pdf	ZIF-8
434	{[Zn2(TBIB)2(HTCPB)2]·9DMF·19H2O}n	Zn					2		138	350				209.pdf	
435	M@COF-0.05	Zr	TFB	one-pot method	n/BuOH	solid	4	72		4.53	126	273	1	210.pdf	
436	M@COF-0.10	Zr	TFB	one-pot method	n/BuOH	solid	4	72		4.04	153	273	1	210.pdf	
437	M@COF-0.15	Zr	TFB	one-pot method	n/BuOH	solid	4	72		3.36	150	273	1	210.pdf	
438	M@COF-0.15-Br	Zr	TFB	one-pot method and post-synthetic modification	acetonitrile	solid	4	12						210.pdf	
439	F-Mn-MOF-74	Mn	H4dhtp	hydrothermal	DMF	crystal		24	20.83		99%	373	10	211.pdf	MOF-74
440	Mg2(dobdc)	Mg	H4DOBDC	solvothermal	DMF/EtOH/H2O		2	20	780.46	2.67		333		212.pdf	
441	TEPA-Mg/DOB	Mg	H4DOBDC	post-synthetic modification	Toluene	powder	2	12	132.24	8.31		333		212.pdf	

	DC														
442	C60 @MOF- 545-Co	Co	Co-TCPP	one-pot impregnation	CS2	solid		8	1106	1.159989292	97.00%	298	1.0132 5	213.pdf	
443	C70 @MOF- 545-Co	Co	Co-TCPP	one-pot impregnation	CS2	solid					91.10%			213.pdf	
444	F- IRMOF-3	Zn	ABDC	functionalization	DMF	solid	2	1.5	132					214.pdf	IRMOF-3
445	IRMOF-3	Zn	2- aminoBDC			solid	2		420					214.pdf	IRMOF-3
446	Zn-ZIF-L	Zn	2- methylimid azole	pyrolysis and oxidation	H ₂ O	solid		6	111		100%		1	215.pdf	
447	ZIF-8	Zn	2- methylimid azole		H ₂ O	solid			175					215.pdf	ZIF-8
448	Cr-Soc- MOF-1	Cr	3,3',5,5'- tetrakis- (4- carboxyph enyl)-p- terphenyl [H4TCPT]				3		5544.9	2	7.6	298	1	216.pdf	MOF-1
449	Cr-Soc- MOF-2	Cr	3,3',5,5'- tetrakis- (4- carboxyph enyl)-1,4- diphenyl phthalene [H4TCDPN]				3		5474.1	15	6.4	298	1	216.pdf	
450	Cr-Soc- MOF-3	Cr	3,3',5,5'- tetrakis- (4- carboxyph enyl)-9,10- diphenyl anthracene [H4TCDDPA]				3		5582.3	24	5.5	298	1	216.pdf	
451	Cr-Soc- MOF-4	Cr	4,4',4'',4'''- tetrakis- (4- carboxyph enyl)-1,2,3,4- benzophen onetetracar boxylic acid [H4TCDDPA]				3		5367.3	16.36	4.3	298	1	216.pdf	

			π^2 -(1,2,4,5-tetrazine-3,6-diyl)-bis-(pyridine-4,2,6-triyl)-tetrabenzolate [H4TPT]												
452	Cr-Soc-MOF-5	Cr	3,3',5,5'-azobenzene tetracarboxylate [H4ABTC]				3		3833.1	10.98	7.4	298	1	216.pdf	MOF-5
453	UiO-66	Zr	BDC	solvothermal	DMF/Chloroform	solid	4	24	1434			273	1.01325	217.pdf	UiO-66
454	MOF-5-MIX	Zn	BDC	solvothermal	DMF	heterogeneous		6	357	2.199518158	> 99%	298		218.pdf	MOF-5
455	MOF-74-Ni	Ni	H4DOBDC	solvothermal	DMF/EtOH/H ₂ O	nanoparticles	2	6	570		33			219.pdf	MOF-74
456	UiO-66-NH ₂	Zr	NH ₂ -H ₂ bdc	solvothermal	DMF/H ₂ O	nanoparticles	4	24	498		30			219.pdf	UiO-66
457	UiO-67	Zr	4,4'-biphenyldicarboxylic acid (BPDC)	microwave-assisted synthesis	Dimethylformamide (DMF)		4	2.25	2354		17 mmol/g	298	20	220.pdf	
458	MIL-101(Cr, Mg)	Cr, Mg	BDC	hydrothermal	DMF/EtOH/H ₂ O	solid		10	2747.4	3.04		301	1	221.pdf	MIL-101
459	PEI-MIL-101(Cr, Mg)	Cr, Mg	BDC	wet impregnation method	MeOH	solid		12	323.249	3.04		301	1	221.pdf	MIL-101
460	Co/ZIF-8	Co, Zn	2-methylimidazole	soft template method	deep eutectic solvent (DES)	solid		8	987		97.90%		7	222.pdf	ZIF-8
461	UiO-66(Zr)-(OH) ₂	Zr	2,5-dihydroxyl BDC	microwave-assisted continuous-flow synthesis	DMF	solid	4	0.166666667	1410	6.23	6.23 mmol/g	298	1	223.pdf	UiO-66
462	[Sn(TPP)(OTf) ₂]	Sn	Tetraphenyl porphyrin	catalytic reaction	DMF	homogeneous	4	3						224.pdf	

463	Ni (II)-MOF-1	Ni	BTC	solvothermal	DMF	solid				9.8		273	1	225.pdf	MOF-1
464	JLNU-99	Zn	bbi, H2tdc	solvothermal	H ₂ O	solid	2	12						226.pdf	
465	ZIF-8	Zn	2-methylimidazole	solvothermal	MeOH	solid	2	5.25					7	227.pdf	ZIF-8
466	UiO-66	Zr	1,4-benzene dicarboxylic acid (BDC)	solvothermal	DMF	solid	4							228.pdf	UiO-66
467	ZIF-67	Co	Nitrogen-containing organic ligands	hydrothermal		solid	2							228.pdf	ZIF-67
468	MIL-101	Cr	Carboxylic acid	solvothermal		solid	3							228.pdf	MIL-101
469	MOF-74	Mg, Zn, Ni, Co	2,5-dihydroxybenzenedicarboxylic acid			solid	2							228.pdf	MOF-74
470	PCN-777	Cu	Tribenzoic acid			solid	2							228.pdf	
471	IRMOF-74-IV	Zn	Aromatic carboxylic acid ligands			solid	2							228.pdf	IRMOF-74
472	Ru (II)(TPP)(PPh ₃) ₂	Ru	TPP, PPh ₃	metalation				4					6.67	229.pdf	
473	Co (III)(TTMAPP)I ₄ (OAc)	Co	TBTC	reflux	None	solid		5						230.pdf	
474	Fe (III)(TTMAPP)I ₄ (OAc)	Fe	TBTC	reflux	None	solid		15						230.pdf	
475	Mn (III)(TTMAPP)I ₄ (OAc)	Mn	TBTC	reflux	None	solid		5						230.pdf	
476	Cr (III)(TTMAPP)I ₄ (OAc)	Cr	TBTC	reflux	None	solid		24						230.pdf	

	APP)I4(C l)														
477	CuTrp	Cu	L- tryptophan	direct mixing	MeOH	solid		6	4.2					231.pdf	
478	Chiral basket- handle porphyrin -Co complex	Co	(R)-2,2'- dihydroxyl [1,1'] binaphthale nyl-3,3'- dicarbaldeh yde	solvothermal	DMF	solid		3						232.pdf	
479	IRMOF-3	Zn	2- aminoBDC	solution-based direct mixing technique	DEF(DMF)	brown crystals	2	18	981.428 5	1.39	3.21	298.15	1.0132 5	233.pdf	IRMOF-3
480	AMP@IR MOF-3 (25 wt%)	Zn	2- aminoBDC	post-synthetic functionalizatio n	Toluene	dark yellowish powder	2	12	970.596 2	2.67	3.9	298.15	1.0132 5	233.pdf	IRMOF-3
481	AMP@IR MOF-3 (50 wt%)	Zn	2- aminoBDC	post-synthetic functionalizatio n	Toluene	dark yellowish powder	2	12	965.352 6	2.67	2.4	298.15	1.0132 5	233.pdf	IRMOF-3
482	AMP@IR MOF-3 (75 wt%)	Zn	2- aminoBDC	post-synthetic functionalizatio n	Toluene	dark yellowish powder	2	12	962.569 4	3.9	3.51	298.15	1.0132 5	233.pdf	IRMOF-3
483	Ni@Ru- UiO-67	Ni, Ru, Zr	bpet	ship-in-a-bottle	DMF/Acetonitrile/H ₂ O	solid		48	1		>99%			234.pdf	
484	CoCp2@ MOF- 545-Co	Co	Co-TCPP	chemical vapor deposition	DMF/Acetone	solid	2	15	663	1.06629785		273	1.0132 5	235.pdf	
485	FeCp2@ MOF- 545-Co	Fe	Co-TCPP	chemical vapor deposition	DMF/Acetone	solid	2	15						235.pdf	
486	NiCp2@ MOF- 545-Co	Ni	Co-TCPP	chemical vapor deposition	DMF/Acetone	solid	2	15						235.pdf	
487	ZIF-22	Zn	imidazole			solid		2			98%		12	236.pdf	
488	ZIF-95	Zn	5- chlorobenzi midazole (cblm)	solvothermal	DMF	solid	2	2	1170					237.pdf	
489	Zn-ZIF- 67	Zn, Co	2- methylimid azole	solvothermal	H2O	solid		24	1881	1.866244312	>99%	273	1.0132 5	238.pdf	ZIF-67
490	ZIF-78	Zn	imidazolate	hydrothermal	DMF	solid		15			61%			239.pdf	
491	ZIF-71	Zn	4,5-	solvothermal	EtOH	solid		24			> 99%		12	240.pdf	

			dichloroimi dazole												
492	HKUST-1	Cu	C ₆ H ₃ (COO H) ₃	solvent-less heating	MeOH	solid		48	1559					241.pdf	HKUST-1
493	CAU-17	Bi	C ₆ H ₃ (COO H) ₃	microwave- assisted	MeOH	solid		0.33333 3333	1197					241.pdf	
494	Zn-Ni bi- metal MOFs	Zn, Ni	2- methylimid azole	ultrasonic assisted synthesis	MeOH	solid		0.33333 3333	681.3		95.10%			242.pdf	
495	Zn-BTC	Zn	BTC	in-situ growth	DMF/EtOH			12	420.3		>90%			243.pdf	
496	CA-LDH	Cu, Al		hydrothermal	DIH ₂ O		2	8	44.8					243.pdf	
497	Zn (Py)(Atz)	Zn	H ₂ Py, HAtz	solvothermal	DMF/H ₂ O	solid	2	72	764.5	2.333363077		273	1	244.pdf	
498	PCN-777	Zr	4,4'-bis(4- triyl- tribenzoate (TATB)		MeOH	solid		12		0.53	132	298	0.1519 875	245.pdf	
499	PEI(20%) @P777	Zr			MeOH	solid		12		0.53	132	298	0.1519 875	245.pdf	
500	PS(20%) @P777	Zr			MeOH	solid		12		0.15	22	298	0.1519 875	245.pdf	
501	TAL-33	Bi	1H- benzo[d]im idazole-5,6- diol	carbonization	25%aq.NH ₃ /DMF/Et OH/H ₂ O	solid		24	123		up to 100%			246.pdf	
502	MOF-177	Zn	C ₂₁ H ₁₈ O ₆ (benzenetri benzoate/B TB)	solvothermal	DEF/Chloroform	powder	2	72	2784	4.6		298	1	247.pdf	
503	MOF-177	Zn	H ₃ BTB	hydrothermal	DEF	crystals	2	72	2784	1.12		298	1	248.pdf	
504	MOF- 177- TEPA- 20%	Zn	H ₃ BTB	wet impregnation		pellet	2		585	4.6		328	1	248.pdf	
505	Mg ₂ (dob dc)	Mg	H ₄ DOBDC	solvothermal	DMF		2		1200	9.9		298	1	249.pdf	
506	mmen- Mg ₂ (dob pdc)	Mg	H ₄ DOBPD C	microwave- assisted	DMF		2		1094	2		298	0.0003 9	249.pdf	
507	SIFSIX- 3-Cu	Cu	pyrazine				2			0.32		298		249.pdf	SIFSIX-3
508	nan													250.pdf	

509	ZIF-69	Zn	Imidazole derivative	secondary growth	I±/alumina	solid	2				64	300	2	251.pdf	
510	ZIF-62	Zn	Imidazole derivative	melt-quenching	Alpha/alumina	solid	2				34	298	1	251.pdf	
511	Co-MOF	Co	Carboxylate derivative	solvothermal		solid	2							251.pdf	
512	1 wt%Ru/Uio-66	Ru		impregnation			4	16	60					252.pdf	UiO-66
513	MDC_5H2/N2	Ru		heat-treatment		amorphous	4	10						252.pdf	
514	MDC_80H2/CO2	Ru		heat-treatment and co2 activation		composite		100			95%	523	30	252.pdf	
515	MIL-53(Al)	Al	BDC	hydrothermal	DMF(DMF/C3H7NO)	nanoparticles	3	72	1170					253.pdf	MIL-53
516	NH2-MIL-53(Al)	Al	2-aminoBDC	hydrothermal	DMF(DMF/C3H7NO)	nanoparticles	3	72	872					253.pdf	MIL-53
517	A-MIL-53(Al)	Al	2-aminoBDC	grafting	EtOH	nanoparticles	3	48	138		54			253.pdf	MIL-53
518	ZIF-67	Co	2-methylimidazole	microwave-assisted solvent-free		solid	2	0.5	1120					254.pdf	ZIF-67
519	MIL-101-tzm-Br	Cr	1,2,3-triazole	click chemistry	Toluene	solid		12	1225					255.pdf	MIL-101
520	MIL-101-tzmOH-Br	Cr	1,2,3-triazole	click chemistry	Toluene	solid		12	1429					255.pdf	MIL-101
521	NH2-MIL-53(Al)	Al	2-aminoBDC	solvothermal	DMF	solid	3	0.022222222				273		256.pdf	MIL-53
522	UiO-66	Zr	BDC	solvothermal	DMF	solid	4	48	1610.5		38.4 cm ³ /g			257.pdf	UiO-66
523	UiO-66/CNNS	Zr	BDC	electrostatic self-assembly	H2O	composite solid	4		1315.3		32.7 cm ³ /g			257.pdf	UiO-66
524	UiO-66/Bulk CN	Zr	BDC	electrostatic self-assembly	H2O	composite solid	4		1340.9		35.9 cm ³ /g			257.pdf	UiO-66
525	mesoCu@Al-bpydc	Cu	2,2'-bipyridine-5,5'-dicarboxylic acid	wet-impregnation					237			298		258.pdf	

526	bio-MOF-11	Co	adenine	solvothermal	DMF		2		1040	4.1	81:1 (273 K), 75:1 (298 K)	273	1	259.pdf	
527	UiO-bpy	Cu/Zn	2,2'-bipyridine-5,5'-dicarboxylate (bpydc)	solvothermal + post-synthetic metalation	THF				89.8		100%	523	40	260.pdf	
528	NH ₂ -MIL-125(Ti)	Ti	H2ATA		Acetonitrile (MeCN)		3	10	1302	5.898099402		273	1.01325	261.pdf	
529	Ag@MIL-101	Ag		impregnation + reduction	DMF	solid	1	15		1.459895478		298	1.01325	262.pdf	MIL-101
530	MIL-101	Cr		solvothermal	DMF	solid	3	68	2610				1.01325	263.pdf	MIL-101
531	PCN-333			solvothermal		solid		72					1.01325	263.pdf	
532	nan	Palladium	P,P'-Oligand	cross-coupling	Toluene			48						264.pdf	
533	Mg ₂ (dobpdc)	Mg	H4DOBPDC4-	solvothermal		highly crystalline powders	2					333	0.0125	265.pdf	
534	Zn(imPim) (MAF-stu-1)	Zn	imPim	solvothermal, rapid synthesis						5.18	106	298	0.15	266.pdf	
535	PCN-221(Fe)	Fe		sequential deposition	DMF/EtOH		2	0.166666667						267.pdf	
536	MAPbI ₃ @PCN-221(Fe0.2)	Fe	CH ₃ NH ₃ I	sequential deposition	EtOH			0.166666667		1559	34%			267.pdf	
537	MUF-17	Co	aip	facile synthesis	H ₂ O	solid				2.5	501	298	1	268.pdf	
538	CuBTC@Graphene Oxide	Cu	BTC	facile method		composite	1			8.9		273	1	268.pdf	
539	[Mg ₂ (dobpdc)(DMF) ₂ ·1.8 H ₂ O]	Mg	C ₂₀ H ₂₂ Mg ₂ N ₂ O ₉	microwave-assisted	DMF/EtOH=1/1	solid	2	0.333333333						269.pdf	
540	[Mg ₂ (dobpdc)(en)1.95(H ₂ O) _{0.05}]	Mg	C _{17.9} H _{21.7} N _{3.9} O _{6.0} 5Mg ₂	sonochemical and microwave-assisted	Toluene	solid	2	5	933	4.317200636	186	313	1	269.pdf	

541	[Mg ₂ (dobpdc)(men) 1.7(H ₂ O) 0.3]	Mg	C17.9H21.7N3.9O6.0 5Mg ₂	sonochemical and microwave-assisted	Toluene	solid	2	5	1036	3.953646898	131	313	1	269.pdf	
542	[Mg ₂ (dobpdc)(den) 1.5(H ₂ O) 0.5]	Mg	C20H25N3 O6.5Mg ₂	sonochemical and microwave-assisted	Toluene	solid	2	5	840	2.772097251	102	313	1	269.pdf	
543	Mg ₂ (dobpdc)(1-nmen)	Mg	H4DOBPDC	microwave-assisted	DMF/EtOH	gray powder	2	18	812	3.99	0.089 mmol/g at 39 Å°C	313	1	270.pdf	
544	Mg ₂ (dobpdc)(1-ecn)	Mg	H4DOBPDC	microwave-assisted	DMF/EtOH	gray powder	2	18		5.05	0.069 mmol/g at 40 Å°C	313	1	270.pdf	
545	Mg ₂ (dobpdc)(1-ipen)	Mg	H4DOBPDC	microwave-assisted	DMF/EtOH	gray powder	2	18		4.05	0.064 mmol/g at 40 Å°C	313	1	270.pdf	
546	MIL-101-NH ₂ (Al)	Al	2-aminoBDC	solvothermal	MeCN	pale yellow solid	3		1570		Only formate			271.pdf	MIL-101
547	Mg ₂ (dobpdc)(en)	Mg	H4DOBPDC4-	solvothermal	DMF/EtOH	solid	2	72	1403			313	1	272.pdf	
548	Mg ₂ (dobpdc)(pn)	Mg	H4DOBPDC4-	solvothermal	DMF/EtOH	solid	2	72	1296			313	1	272.pdf	
549	Mg ₂ (dobpdc)(bn)	Mg	H4DOBPDC4-	solvothermal	DMF/EtOH	solid	2	72	1358			313	0.01	272.pdf	
550	Mg ₂ (dobpdc)(pen)	Mg	H4DOBPDC4-	solvothermal	DMF/EtOH	solid	2	72	1143			313	1	272.pdf	
551	Mg ₂ (dobpdc)(hn)	Mg	H4DOBPDC4-	solvothermal	DMF/EtOH	solid	2	72	739			313	1	272.pdf	
552	Mg ₂ (dobpdc)(on)	Mg	H4DOBPDC4-	solvothermal	DMF/EtOH	solid	2	72	821			313	1	272.pdf	
553	NH ₂ -MIL-125(Ti)	Ti	2-aminoBDC	hydrothermal	DMF/MeOH	solid	4	72	1302	5.898099402		273	1.0132 ₅	273.pdf	
554	Pt/NH ₂ -MIL-125(Ti)	Pt	2-aminoBDC	wetness impregnation	DMF/MeOH	solid	0	2	774	4.024270545		273	1.0132 ₅	273.pdf	
555	Au/NH ₂ -MIL-125(Ti)	Au	2-aminoBDC	wetness impregnation	DMF/MeOH	solid	0	2	817	5.237797805		273	1.0132 ₅	273.pdf	

556	[Zn ₂ (NH ₂ BDC) ₂ (dpNDI)] _n (MOF 1)	Zn	N,N'-di(4-pyridyl)-1,4,5,8-naphthalene diimide (dpNDI)	solvothermal	DMF/EtOH	microporous		72	118.6	1.51	93	273	1.0132 ₅	274.pdf	MOF-1
557	Mg-MOF-74	Mg	dhtp	solvothermal and sonochemical	none	solid	2	4	1640	7.952738014		298	20	275.pdf	MOF-74
558	Co-MOF-74	Co	dhtp	microwave-assisted	none	solid	2	4						275.pdf	MOF-74
559	UiO-66-NH ₂	Zr	NH ₂ -BDC		none	solid	4	4						275.pdf	UiO-66
560	BIT-103	Zn	BTC	structured directing method	none	solid	2	24					30	275.pdf	
561	1-NH ₂	Zn	L	solvo(hydro)-thermal		solid	2	6				373	30	275.pdf	
562	UMCM-1-NH ₂	Zn	NH ₂ -BDC	solvothermal	none	solid	2	24	4200				12	275.pdf	
563	Cu ₂ (ABTC)	Cu	3,3'-azobenzene tetracarboxylic acid (ABTC)	solvothermal	DMF/anhydrousEtOH	microporous crystalline		8	2200	4.149192469	22 (CO ₂ /N ₂), 6.5 (CO ₂ /CH ₄)	298	1.0132 ₅	276.pdf	
564	Cd-PCN-222HTs	Cd	Porphyrin structures	solvothermal	[Bmim]PF ₆ /H ₂ O/MeCN	solid	2		383	0.99937539		298	1.0132 ₅	277.pdf	
565	5M-TCPB	Y, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu	1,2,4,5-tetrakis(4-carboxyphenyl) benzene (TCPB)	solvothermal	DMF	colorless hexagonal plates	3	72	1520					278.pdf	
566	15M-TCPB	Y, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er,	1,2,4,5-tetrakis(4-carboxyphenyl) benzene (TCPB)	solvothermal	DMF	colorless hexagonal plates	3	72	1360					278.pdf	

		Tm, Yb, Lu													
567	ZIF-8/P4VP/Au	Zn, Au	2-methylimidazole	in-situ reduction		2d nanosheet	2		989.6					279.pdf	ZIF-8
568	H-ZnCo-ZIF	Zn, Co	2-methylimidazole	post-synthetic chemical-etching	TannicAcidsolution	hollow	2	4	920					280.pdf	
569	UC-Ika1			fused deposition modeling (3d printing)		rigid								281.pdf	
570	Lignin-Cellulose Composite			infiltration and hot-pressing	EtOH/sodiumhydroxide	composite material		12						282.pdf	
571	MOF-5	Zn	BDC				2		2833					283.pdf	MOF-5
572	MIL-100	Fe	BDC				3		1754					283.pdf	MIL-100
573	HKUST-1	Cu	Benzene-1,3,5-tricarboxylate (BTC)				2		1781					283.pdf	HKUST-1
574	UiO-66	Zr	BDC				4		1125					283.pdf	UiO-66
575	ZIF-7	Zn	Methylimidazole				2		312					283.pdf	
576	Im-UiO-PL	Zr	2-[(3-decylimidazol-1-yl)chloride]-BDC	surface ionization	DMF/aceticacid	liquid	4	72	103	5.93		298	9	284.pdf	
577	ZIF-90	Zn	Imidazole-2-carbaldehyde	ultrasonic stirring	H ₂ O/alcohol/PVP	solid		8	811.41		98.17%			285.pdf	
578	ZIF-90-IL-1	Zn	Imidazole-2-carbaldehyde modified with ionic liquid	ionic liquid loading via stirring	MeOH	solid		8	21.77		98.17%		25	285.pdf	
579	ZIF-90-IL-2	Zn	Imidazole-2-carbaldehyde modified	ionic liquid loading via stirring	MeOH	solid	2	8	87.58					285.pdf	

			with ionic liquid												
580	ZIF-90-IL-3	Zn	Imidazole-2-carbaldehyde modified with ionic liquid	ionic liquid loading via stirring	MeOH	solid	2	8	98.78					285.pdf	
581	{(Me ₂ NH ₂) ₂ ·[Zn ₈ (Ad) ₄ (DABA) ₆ O]·7 DMF}	Zn	2,2'-dimethyl-4,4'-azobenzoinic acid (DABA)	solvothermal	DMF/H ₂ O	crystalline		24	1036	1.522381277		273	1.01325	286.pdf	
582	Mg ₂ (dobpdc)	Mg	H ₄ DOBPD C	solvothermal			2			3.3		298		287.pdf	
583	Fe-dbai	Fe	dbai	solvothermal			2			1.7		298		287.pdf	
584	ZIF-8	Zn	imidazole	solvothermal		solid	2			0.72		298		287.pdf	ZIF-8
585	MgNi-MOF-74	Mg, Ni	2,5-dioxido-BDC	solvothermal					931.6		98%			288.pdf	MOF-74
586	PPy@MgNi-MOF-74	Ni		insitu oxidative polymerization		composite			0.63					288.pdf	MOF-74
587	NiSA-N ₂ -C	Ni		pyrolysis	N ₂	n-doped carbon	1		280.8		98%			288.pdf	
588	UiO-bpy	Zr	2,2'-bipyridine-5,5'-dicarboxylate (bpydc)	solvothermal	dimethylsulfoxide(DMSO)	solid		12	1323					289.pdf	
589	CdS/UiO-bpy/Co	Co	bpydc	solvothermal	tetrahydrofuran (THF)	solid	2	12	25.5		85%		8	289.pdf	
590	Cu-ade	Cu	adenine, acetic acid		MeOH/H ₂ O	nanosheet, nanocuboid	2	24						290.pdf	
591	Au&Pt@ZIF	Au, Pt	2-methylimidazole	solvothermal	MeOH	solid		3						291.pdf	
592	Cu-MOF	Cu	5-(1-oxo-2,3-dihydro-1H-inden-2-yl)	slow evaporation	DMF/H ₂ O	solid		4		1.524653488		298	1	292.pdf	

			isophthalic acid												
593	MOF-5	Zn	BDC	solvothermal	DMF	solid	2	6						293.pdf	MOF-5
594	Zn-aminotriazolate-oxalate	Zn	Oxalic acid	solvothermal	H ₂ O		2	48	782	4.35		273	1.2	294.pdf	
595	MIL-100	Cr	BDC	hydrothermal	HF/H ₂ O	solid	3	96	1007	3.5		298	10	295.pdf	MIL-100
596	MIL-101	Cr	BDC	hydrothermal	HF/H ₂ O	solid	3	8	1420	6.1		298	10	295.pdf	MIL-101
597	MIL-96-(Al)	Al	BTC	microwave-assisted hydrothermal	DMF/H ₂ O	solid	3	0.033333333	600	6.3	36	303	1	296.pdf	
598	Hf-NU-1000	Hf		solvothermal		solid	4		1780					297.pdf	
599	[Zn(ZnOAc) ₄ (bibta) ₃](1)	Zn	bibta (5,5'-bibenzotriazolate)	ligand exchange followed by thermal activation	THF/H ₂ O/NaHCO ₃ solution	light brown microcrystalline powder			2075	2.044989775		300	0.0004	298.pdf	
600	[Zn(ZnOH) ₄ (bibta) ₃](2*)	Zn	bibta (5,5'-bibenzotriazolate)	thermal activation after ligand exchange	THF/H ₂ O				2522	2.2		300	0.0004	298.pdf	
601	Coâ''OH	Co	bibta2â''	postsynthetic ligand exchange	DMF	solid	2	16	1930	2.044989775		300	0.0004	299.pdf	
602	Niâ''OH	Ni	bibta2â''	postsynthetic ligand exchange	DMF	solid	2	16	2285	2.908429902		300	0.01	299.pdf	
603	Cuâ''OH(X)	Cu	bibta2â''	postsynthetic ligand exchange	Dimethylacetamide(DMA)	solid	2	16						299.pdf	
604	CAU-1	Al	H ₂ Nâ''BD _C	hydrothermal	MeOH	microcrystalline	3	5	1268	7.2	101:01:00	273	1.01325	300.pdf	
605	Mg-MOF-74(S)	Mg	H ₄ DOBDC	sonochemical	DMF/EtOH/H ₂ O	crystalline	2	1	1690	7.952738014	179 mg gâ''l	298	1.013	301.pdf	MOF-74
606	Mg-MOF-74(C)	Mg	H ₄ DOBDC	solvothermal	DMF/EtOH/H ₂ O	crystalline	2	24	1525	7.930015905	171 mg gâ''l	298	1.013	301.pdf	MOF-74
607	MgIIporphyrin 1d	Mg	quaternary ammonium bromide		solvent/free			3						302.pdf	
608	ZnIIporphyrin	Zn												302.pdf	
609	Cu ₃ (NH ₂ btc) ₂	Cu	NH ₂ btc	solvothermal	dimethylacetamide(DMA)â''H ₂ O	crystalline	1	24	1834	11.7		298	45	303.pdf	
610	MIL-	Cr	2-	hydrothermal	H ₂ O	crystalline		24	2070	3.02	25	273	1.0132	304.pdf	MIL-101

	101(Cr)-NH ₂		aminoBDC										5		
611	MIL-101(Cr)-I	Cr	2-aminoBDC	post-synthetic modification				72			18	273	0.5572 875	304.pdf	MIL-101
612	MIL-101(Cr)-F	Cr	2-aminoBDC	post-synthetic modification				18			30	273	0.5572 875	304.pdf	MIL-101
613	MIL-101(Cr)-azo	Cr	2-aminoBDC	post-synthetic modification	C ₆ H ₅ OH(aq)			72			73	273	0.5572 875	304.pdf	MIL-101
614	MIL-101(Cr)	Cr	2-aminoBDC	hydrothermal	OH ₂ /assistedhydroth ermalsynthesis	nanopartic les	3	12	1675	25	12	273.4	1	305.pdf	MIL-101
615	[Zn(HL)] \$DMA (IFMC-1)	Zn	4,5-di(1H- tetrazol-5- yl)-2H- 1,2,3- triazole	solvothetmal	DMA	colorless block crystals		72	780	7.5	50.3:1 at 273 K	195	1.0132 5	306.pdf	
616	BIT-101	Zn	BTC	solvothetmal	DMF/DMAC	colorless crystals								307.pdf	
617	BIT-102	Zn	BTC	solvothetmal	DMF/DMAC	reddish brown crystals					95.20%			307.pdf	
618	BIT-103	Zn	BTC	solvothetmal	DMF/DMAC	colorless crystals					100%			307.pdf	
619	en- Mg ₂ (dob pdc) (1- en)	Mg	H4DOBDP C	microwave- assisted solvothetmal	DMF/EtOH	white powder	2	0.25	1253	2.83	70000	298	0.0003 9	308.pdf	
620	Cu(Hip)2(Bpy)	Cu	Bpy (4,4'- Dipyridyl)	microwave- assisted	H ₂ O	solid		0.1	0.4		90.30%	393	12	309.pdf	
621	ZIF- 8/Zn ₂ Ge O ₄	Zn, Ge	2- methylimid azole	hydrothermal	MeOH	nanorods		12	319.5	5.716882527	62% enhance ment in CO ₂ conversi on	273	1.0132 5	310.pdf	ZIF-8
622	Ni@MOF- 5	Ni	BDC	impregnation		solid		100	2961		100%	553	1.0132 5	311.pdf	MOF-5
623	EN-MIL- 100(Cr)	Cr	BTC	post-synthetic modification	Toluene	solid		12	484	2.4		308		312.pdf	MIL-100
624	MMEN- MIL- 100(Cr)	Cr	BTC	post-synthetic modification	Toluene	solid		12	893	1.7		308		312.pdf	MIL-100
625	MIL- 100(Cr)	Cr	BTC	hydrothermal	H ₂ O	solid		96	1716	1.6		308		312.pdf	MIL-100

626	Aluminum Porphyrin Complex	Al	Porphyrin	complex formation	Dichloromethane(CH ₂ Cl ₂)	purple solid		0.5			>99%			313.pdf	
627	Sc ₃ N@D ₅ h-C ₈₀	Sc	tosyl hydrazone	chemical reaction	CS ₂ /CDCl ₃ /hexanes			1						314.pdf	
628	Sc ₃ N@C ₆₈	Sc	tosyl hydrazone	1,3-dipolar cycloaddition	Toluene									314.pdf	
629	DMOF-1-Zn	Zn	BDC	electrochemical synthesis	DMF/H ₂ O	solid	2	6						315.pdf	
630	dmen-Mg ₂ (dobdc)	Mg	H ₄ DOBDC	post-synthetic grafting	DMF/EtOH	solid	2		675	3.022040445	554	313	1	316.pdf	
631	Mg ₂ (dondc)	Mg	H ₄ dondc	microwave-assisted	DEF/THF/MeOH	solid	2	90	1553	4.8	41	25		317.pdf	
632	1-en	Mg	H ₄ dondc	post-synthetic modification	Toluene	solid	2	17	40	1.99	116	25		317.pdf	
633	1-mmen	Mg	H ₄ dondc	post-synthetic modification	Toluene	solid	2	17	99	3.2	69	25		317.pdf	
634	1-ppz	Mg	H ₄ dondc	post-synthetic modification	Chloroform	solid	2	17	47	2.04	6516	25		317.pdf	
635	IF-MoS ₂	Mo		solution-phase reduction followed by annealing	N-methyl-2-pyrrolidone(NMP)	solid	4	12						318.pdf	
636	IRMOF-3	Zn	2-aminoBDC			microporous	2		1808	2.32	7.4	273	1	319.pdf	IRMOF-3
637	IRMOF-3/800	Zn	2-aminoBDC			meso-macroporous	2		1184	3.99	87	273	1	319.pdf	IRMOF-3
638	Ti-ZIF	Ti	Imidazole	hydrothermal	DMF	off-white solid	4	24	369.019					320.pdf	
639	[Mg ₂ ,(dobdc)(Na ₂ ,H ₂ ,,â,â,â,^)]	Mg	H ₄ ,,dobdc	gratification	Toluene	microcrystalline	2		1925			298	0.0004	321.pdf	
640	Co-ZIF-9	Co	benzimidazole	hydrothermal	DMF	solid	2	48						322.pdf	
641	Co-ZIF-9/TiO ₂	Co and Ti		in situ growth	EtOH	solid	2	12		3.58			0.7	322.pdf	
642	IISERP-MOF4	Mg	4-(1 H-imidazol-1-yl)benzoic acid	solvothermal	DMF/ACN	solid	2	60	692	9.05	410	303	1	323.pdf	

643	IISERP-MOF5	Mg	4-(1 H-1,2,4-triazol-1-yl)benzoic acid	solvothermal	DMF/ACN	solid	2	60	722	9.05	417	303	1	323.pdf	MOF-5
644	IISERP-MOF6	Mg	4-(1 H-1,2,4-triazol-1-yl)benzoic acid	solvothermal	DMF/ACN	solid	2	60	703	9.05	449	303	1	323.pdf	
645	IISERP-MOF7	Mg	4-(1 H-imidazol-1-yl)benzoic acid	solvothermal	DMF/ACN	solid	2	60	645	9.05	355	303	1	323.pdf	
646	IISERP-MOF8	Mg	4-(1 H-imidazol-1-yl)benzoic acid	solvothermal	DMF/ACN	solid	2	60	559	9.05	496	303	1	323.pdf	
647	IISERP-MOF9	Mg	4-(1 H-1,2,4-triazol-1-yl)benzoic acid	solvothermal	DMF/ACN	solid	2	60	548	9.05	348	303	1	323.pdf	
648	Zn ₂ GeO ₄ /Mg-MOF-74	Zn, Mg	2,5-dioxide-BDC	hydrothermal	DMF/EtOH/H ₂ O	composite	2	24	406.7			298	1.01325	324.pdf	MOF-74
649	IL-ZnTPP	Zn	Imidazolium-based ionic liquid	covalent linkage	EtOH	solid		24						325.pdf	
650	HHU-2	Cu	5-(pyrimidine-5-carboxamido)isophthalic acid (H ₂ PCIP)	solvothermal	DMF/EtOH/H ₂ O	solid	2	24	1180	3.976369007	47.3	298	1	326.pdf	
651	Ag ₂ O/layered ZIF	Ag	2-methylimidazole	one-pot hydrothermal treatment	H ₂ O	composite		24	25.5		80.60%			327.pdf	
652	Ni ₂ P	Ni	P	hydrothermal	H ₂ O	solid	2							328.pdf	
653	NJU-Bai50	Sc	H ₃ L1 (1,10-(4-carboxypyridine-2,6-		H ₂ O	hexagonal plate-shaped crystals	3		2015	2.11	30.5	298		329.pdf	

			diyl)bis(1H-pyrazole-4-carboxylic acid))												
654	NJU-Bai51	Sc	H3L2 (1,10-(4-carboxypyridine-2,6-diyl)bis(3-bromo-1H-pyrazole-4-carboxylic acid))		H2O	block crystals	3		1280	3.81	545.7	298		329.pdf	
655	HKUST-1	Cu	BDC	solvothermal		solid		5		4.1		298	1	330.pdf	HKUST-1
656	Mg-MOF-74	Mg	dobdc	solvothermal		solid				5.4	859	296	0.1	330.pdf	MOF-74
657	UiO-66	Zr	BDC	solvothermal		solid	4			2.3		273	1	330.pdf	UiO-66
658	Ni@UiO-66	Ni	BDC	impregnation and reduction				100	547		100%		10	331.pdf	UiO-66
659	UiO-66	Ni	BDC	impregnation and reduction					547		100%	573	10	332.pdf	UiO-66
660	Ni-MOFs	Ni	BTC	hydrothermal	DMF/EtOH/H2O	solid	2	12		0.669224592		273	1.01325	333.pdf	
661	Ni@C	Ni		pyrolysis	N2atmosphere	solid		2	177	0.669224592	99.90%			333.pdf	
662	ZnMOF-1-NH2	Zn	[2-aminoBDC	mechanochemical, conventional reflux	DCM	solid		1	1155.4	1.4181		273		334.pdf	MOF-1
663	[{Co(TCPB)0.5(H2O)}n/C1DMF]n (MOF1)	Co	H4TCPB (1,2,4,5-tetrakis(4-carboxyphenyl)benzene)	solvothermal	C1DMF	solid		96	87.6		52, 36, 33 (CO2/H2, CO2/Ar, CO2/N2)	195	1	335.pdf	MOF-1
664	ZIF-8	Zn		hydrothermal	MeOH									336.pdf	ZIF-8
665	NC800			pyrolysis		carbon								336.pdf	
666	NC900			pyrolysis		carbon								336.pdf	
667	NC1000			pyrolysis		carbon								336.pdf	
668	NC1100			pyrolysis		carbon					95.40%			336.pdf	
669	Zn(PZDC)(ATZ)	Zn	PZDC2a''	hydrothermal	DMF/H2O	solid		6		2.703930925	High selectivity (99%)	273	1.01325	337.pdf	
670	[Zn3(BT	Zn	BTC	solvothermal	EtOH	solid		6			>99%		13	338.pdf	

	C)2]														
671	Cu ₂ (CuT CPP)	Cu	5,10,15,20-tetrakis(4-carboxyphe nyl) porphyrin	ultrasonication	CH ₃ CNwith1MH ₂ O/ 0.5MEMIMBF ₄	nanosheet s	2	5						339.pdf	
672	Au ₁₂ Ag ₃ 2(SR)30 @ZIF-8	['Au', 'Ag', 'Zn']	2-methylimidazole	electrostatic attraction	MeOH	composite		24	1528.7	0.476255397		273	1.01325	340.pdf	ZIF-8
673	Al-PMOF	Al	Tetrakis(4-carboxyphe nyl)porphyr in (TCPP)		MeCN		3	10	1142					341.pdf	
674	NH ₂ -rGO (5 wt%)/Al-PMOF	Al	Tetrakis(4-carboxyphe nyl)porphyr in (TCPP)		MeCN		3	6	1180	205.6				341.pdf	
675	Ni(INCT PP	Ni	benzoate	metalation		complex		18					100	342.pdf	
676	Pd(II)NC TPP	Pd	benzoate	metalation		complex		18					100	342.pdf	
677	MIL-100(Fe)	Fe	C ₉ H ₆ O ₆	hydrothermal	HF/H ₂ O/HNO ₃	solid		24	1107	1.829213884	13	298	1	343.pdf	MIL-100
678	DETAâ€“ MIL-100(Fe)	Fe	C ₉ H ₆ O ₆	impregnation	EtOH	solid		1	719	1.829213884	51	298	1	343.pdf	MIL-100
679	Mg ₂ (dob pdc)	Mg	H ₄ DOBPDC ₄ -	microwave-assisted	DMF/EtOH	solid	2	0.333333333	3178					344.pdf	
680	[Mg ₂ (dob pdc)(tepa) 0.12(CH ₃ OH)1.88] (T02)	Mg	H ₄ DOBPDC ₄ -		MeOH	solid	2		2372					344.pdf	
681	[Mg ₂ (dob pdc)(tepa) 0.95(CH ₃ OH)1.05] (T2)	Mg	H ₄ DOBPDC ₄ -		MeOH	solid	2		132	2.544876165	1265	313	0.15	344.pdf	
682	[Mg ₂ (dob pdc)(tepa) 1.20(CH ₃ OH)0.80] (T20)	Mg	H ₄ DOBPDC ₄ -		MeOH	solid	2		51	1.915		313		344.pdf	
683	[Mg ₂ (dob	Mg	H ₄ DOBPDC ₄ -		MeOH	solid	2		37	1.067939105		353		344.pdf	

	pdc)(tepa) 1.50(CH3 OH)0.50] (T200)		C4-												
684	NH2- UiO-68	Zr	NH2- terphenyl- 4,400- dicarboxyli c acid	solvothermal	DMF	pale yellow powder	4	24						345.pdf	
685	Pt@NH2- UiO-68	Pt	NH2- terphenyl- 4,400- dicarboxyli c acid	solvothermal	DMF		0	24						345.pdf	
686	Pt/NH2- UiO-68	Pt	NH2- terphenyl- 4,400- dicarboxyli c acid	solvothermal	DMF		0	12						345.pdf	
687	Pt(2)@N H2-UiO- 68	Pt	NH2- terphenyl- 4,400- dicarboxyli c acid	solvothermal	DMF		0	24		400.2				345.pdf	
688	Pt(2)/NH 2-UiO-68	Pt	NH2- terphenyl- 4,400- dicarboxyli c acid	solvothermal	DMF		0	12						345.pdf	
689	Pt(4)- NH2- UiO-68	Pt	NH2- terphenyl- 4,400- dicarboxyli c acid	solvothermal	DMF		0	24						345.pdf	
690	Zr- PMOF/U CN (ZPUCN)	Zr	Metallopor phyrin	in situ hydrothermal self-assembly	H2O	solid	4							346.pdf	
691	MIL- 68(In)	In	C8H6O4	solvothermal	DMF	nanorods	3	24	846					347.pdf	
692	h-In2O3	In		calcination		hollow nanotubes		2	45		72.40%			347.pdf	
693	In2O3@P d	In, Pd		calcination		non- hollow	2	2	31					347.pdf	

694	Rhodium/ γ -Al ₂ O ₃	Rh		impregnation		solid								348.pdf	
695	Ru/Al ₂ O ₃	Ru		supported catalyst		solid								348.pdf	
696	Ni/Al ₂ O ₃	Ni		impregnation		solid								348.pdf	
697	DMOF(Zn)	Zn	BDC	solvothermal	DMF	solid	2	3						349.pdf	
698	BMOF(Zn)	Zn	BDC	solvothermal	DMF/EtOH	solid	2	24	70					349.pdf	
699	nan	MgO							297.1	2.72	39.8 mg g ⁻¹			350.pdf	
700	nan	CaO												350.pdf	
701	PCN- 250(Fe ₃)	Fe	H4ABTC	solvothermal	DMF/EtOH/MeOH/d ichloromethane/aceti c acid	microporo us solid	3	12	1470	1.18	40 (for CO ₂ /N ₂)	298	1	351.pdf	
702	PCN- 250(Fe ₂ Co)	Fe, Co	H4ABTC	solvothermal	DMF/EtOH/MeOH/d ichloromethane/aceti c acid	microporo us solid	3	12	1653	1.32	47 (for CO ₂ /N ₂)	298	1	351.pdf	
703	SIFSIX- 3-Cu	Cu	Pyz	liquid-phase epitaxy (lpe)	MeOH	thin film	2	0.16666 6667			27	308		352.pdf	SIFSIX-3
704	SIFSIX- 3-Ni	Ni	Pyz	liquid-phase epitaxy (lpe)	MeOH	thin film	2	0.16666 6667			20.4	308		352.pdf	SIFSIX-3
705	Mg/DOB DC	Mg	2,5- dioxido- BDC	solvothermal	DMF/EtOH/H ₂ O mix ture				469			298	0.0004	353.pdf	
706	ED- Mg/DOB DC	Mg	2,5- dioxido- BDC	post-synthesis functionalizatio n	anhydrous Toluene			12		1.51				353.pdf	
707	UiO-66	Zr	benzene dicarboxyla te (bdc ²⁻)	solvothermal	DMF/MeOH	solid	4		1105		10.1	298	1	354.pdf	UiO-66
708	UiO-66- NH ₂	Zr	2- aminoBDC	solvothermal	DMF/MeOH	solid	4		1123		17	298	1	354.pdf	UiO-66
709	UiO-66 -NO ₂	Zr	2-nitro- BDC	solvothermal	DMF/MeOH	solid	4		792		12.3	298	1	354.pdf	UiO-66
710	UiO-66 -1,4-Naphyl	Zr	1,4- naphthalene - dicarboxyli c acid	solvothermal	DMF/MeOH	solid	4		757		6.5	298	1	354.pdf	UiO-66
711	UiO-66 -2,5-(OMe) ₂	Zr	2,5- dimethoxy- BDC	solvothermal	DMF/MeOH	solid	4		868		18	298	1	354.pdf	UiO-66
712	Amine-	Al	2-			solid	3			6.816632584	greater	303	5	355.pdf	MIL-53

	Functiona lized MIL- 53(Al)		aminoBDC								than 60				
713	1	Zn	1,5-bis(5- tetrazolo)- 3- oxapentane (H2btz)	solvothermal	DMF/MeOH	microporo us	2		1151	8.089070666	21.1	273	1	356.pdf	
714	CuZn- HKUST-1	Cu, Zn	BTC	solvothermal	DMF/EtOH	solid								357.pdf	HKUST-1
715	Cu/ZnOx @Na- ZSM-5	Cu, Zn		hydrothermal	EtOH/H2O	solid		6		0.0461	71%		30	357.pdf	
716	Zn3(L)3(H2L)	Zn	2- aminoBDC	solvothermal	DMF/EtOH	solid		5	82					358.pdf	
717	Cu-ASP	Cu	aspartic acid	controllable annealing		nanofibers					70%			359.pdf	
718	MUF-17	Co	5- aminoisoph thalic acid (aip)	reflux	H2O/MeOH	solid				1.481217096	501, 270, 175	298	1	360.pdf	
719	Mg2(dobd c)	Mg	H4DOBD (H4DOBD C	solvothermal	MeOH		2	24		9				361.pdf	
720	Ni2(dobd c)	Ni	H4DOBD (H4DOBD C	solvothermal	MeOH		2	24		7				361.pdf	
721	Fe2(dobd c)	Fe	H4DOBD (H4DOBD C	solvothermal	MeOH		2	24		7.1				361.pdf	
722	Co2(dobd c)	Co	H4DOBD (H4DOBD C	solvothermal	MeOH		2	24		6.9				361.pdf	
723	Zn2(dobd c)	Zn	H4DOBD (H4DOBD C	solvothermal	MeOH		2	24		5.9				361.pdf	
724	Cu2(dobd c)	Cu	H4DOBD (H4DOBD C	solvothermal	MeOH		2	24		2.9				361.pdf	
725	Mg2(dob pdc)	Mg	H4DOBD C				2							361.pdf	
726	MET-6	Zn	Zn[C2N3H 2]2	pyrolysis		solid			1072					362.pdf	

727	ZnGLy	Zn	Phosphonate	hydrothermal	DistilledH2O	microporous solid		48	108					363.pdf	
728	Mg-MOF-74	Mg	H4DOBD C	solvothermal			2							364.pdf	MOF-74
729	IRMOF-74-III		Various functionalized organic linkers											364.pdf	IRMOF-74
730	MIL-101(Cr)-TREN	Cr	BDC	grafting and impregnation	Toluene				3550	1.575		298	0.0004	365.pdf	MIL-101
731	MIL-101(Cr)-PEI-800	Cr	BDC	impregnation	MeOH			24		1.225		298		365.pdf	MIL-101
732	UiO-67-IL	Zr	Imidazolium-based ligand	solvothermal	DMF	crystalline powder	4	24	846	0.99937539	4.9 (CO2/C H4), 33.3 (CO2/N 2)	273	1.01325	366.pdf	
733	Cs3Bi2Br9/Bi-MOF	Bi	BTC	solvothermal	DMF/MeOH	solid		24	1150	0.846346034	82.60%	298.15	1	367.pdf	
734	polyILs@MIL-101	Cr	o-DVB	solvothermal	EtOH	solid	3	24	2462	2.766128313		298	1	368.pdf	MIL-101
735	IRMOF-74-III-(CH2NH2)2	Mg	2',5'-bis(aminomethyl)-3,3'-dioxido-[1,1':4',1''-terphenyl]-4,4''-dicarboxylate	microwave-assisted			2	12		2.989203177		298	1.066576	369.pdf	IRMOF-74
736	IRMOF-74-III	Mg	H4DH3PhDC	solvothermal	DMF/EtOH/H2O	microcrystalline solids	2	20	2640	0.8		298	1.066576	370.pdf	IRMOF-74
737	MIL-101(Cr)@Ag	Ag	BDC	solvothermal	MeOH	nanoparticle	0	10						371.pdf	MIL-101
738	PCN-222	Zr, Ni	TCPPNi	solvothermal	DMF	microcrystalline powder	2	0.5	897			298	1.01325	372.pdf	

739	[Co(L)]· DMFA·2 H ₂ O	Co	4,6-bis(4'- carboxyphe nyl)pyrimid ine (H ₂ L)	solvothermal	DMF	solid	2	4	106.13	2.399393236	7.34 to 8.18	273	1	373.pdf	
740	UiO-67- Pt	Pt	biphenyl- 4,4'-dicarboxy lic acid (BPDC) and 2,2'-bipyridine- 5,5'-dicarboxy lic acid (BPYDC)	wet impregnation		solid		2			19%	443	4.5	374.pdf	
741	Fe-doped ZIF-8	Fe	dimethylim idazole	solvothermal and high- temperature pyrolysis	MeOH	solid		3	1156.6		98.80%			375.pdf	ZIF-8
742	Ni-doped ZIF-8	Ni	dimethylim idazole	solvothermal and high- temperature pyrolysis	MeOH	solid		3	1185.4		75.70%			375.pdf	ZIF-8
743	Co-doped ZIF-8	Co	dimethylim idazole	solvothermal and high- temperature pyrolysis	MeOH	solid		3	706.2		32.60%			375.pdf	ZIF-8
744	HB-d	Ni	bipy	solvothermal	DMF	solid	2	48	1940			298	1	376.pdf	
745	HP-e	Ni	pz	postsynthetic modification	DMF	solid	2	252	1210			298	1	376.pdf	
746	GP-d	Ni	pz	solvothermal	DMF	solid	2	48	1090			298	1	376.pdf	
747	GB-e	Ni	bipy	postsynthetic modification	DMF	solid	2	96	1840			298	1	376.pdf	
748	66Pym- MeI	Zr	2,5- pyridinedic arboxylic acid (PyDC)	solvothermal	DMF	solid	4	24	732					377.pdf	
749	67BPym- MeI	Zr	2,2'- bipyridine- 5,5'- dicarboxyla te (BPYDC)	solvothermal	DMF	solid	4	24	1073					377.pdf	

750	CsPbBr ₃ @ZIF-8	Zn	2-methylimidazole	in situ synthesis		solid				0.264566789		298		378.pdf	ZIF-8
751	CsPbBr ₃ @ZIF-67	Co	2-methylimidazole	in situ synthesis		solid								378.pdf	ZIF-67
752	CrTTPCl	Cr	1-methylimidazole, DMAP		methylenechloride	solid		41						379.pdf	
753	CrOTPP	Cr	1-methylimidazole			solid	4	48						379.pdf	
754	NU-1000	Zr	aquo and/or hydroxo ligands	solvothetmal growth	H ₂ O	thin film			1660		31%			380.pdf	
755	Cu-SIM NU-1000	Cu	dmap	solution-phase analogue of aim, termed sim		thin film					31%			380.pdf	
756	{Cu ₄ [(C ₅ H ₃ 2N ₁ 2)(COO) ₈]} _n	Cu	octcarboxylate ligand	solvothetmal	dichloromethane	solid		48	2436	3.569197823		273	1.01325	382.pdf	
757	UiO-66	Zr	BDC	encapsulation	MeOH	solid	4	120	948.8					383.pdf	UiO-66
758	Zn(Bmic)(AT)	Zn	H ₂ Bmic and HAT	solvothetmal	DMF/H ₂ O(3/1volumeratio)	solid		72	444.3	3.52458285		273		384.pdf	
759	ZTIF-8	Zn	5-methyltetrazole (5-Hmtz) and 2-methylimidazole (2-Hmim)	solvothetmal	DMF/EtOH	colorless crystals	2	48	1981	2.922280717		273	1.01325	385.pdf	
760	MAF-23 (1Å·4H ₂ O)	Zn	Bis(5-methyl-1H-1,2,4-triazol-3-yl)methane (H ₂ btm)	hydrothetmal	Diluteaqueousammonia	microcrystalline	2		622	6.180413542	163 (273 K), 107 (298 K)	195	1.01325	386.pdf	
761	[Zn(atz) ₂](MAF-66)	Zn	3-amino-1,2,4-triazolate (atz ²⁻)	neutralization reaction	isopropylalcohol	crystalline		72	1014	6.271301977	403	273	1.01325	387.pdf	

762	[(CH ₃) ₂ NH ₂] ₆ [Cd ₃ L(H ₂ O) ₂] ₄ ·12H ₂ O	Cd	H12L	solvothermal	DMF/H ₂ O	microporous		144						388.pdf	
763	HHU-5	Cu	H5TBDPB (5-(1H-tetrazole-5-yl)-1,3-bis(3,5-dicarboxylphenyl)-benzene)	solvothermal	DMF/H ₂ O		2		2070	8.423306862	21.2 (CO ₂ /N ₂), 6.2 (CO ₂ /CH ₄)	273	1	389.pdf	
764	SIFSIX-3-Cu	Cu	pyz				2			7.18	10.03			390.pdf	SIFSIX-3
765	DICRO-3-Ni-i	Ni	azp				2			0.97				390.pdf	
766	MOOFOUR-1-Ni	Ni	bpe				2			1.27				390.pdf	
767	Ni-4-PyC	Ni	pyc				2			1.68				390.pdf	
768	DMOF-1	Zn	dabco				2			1				390.pdf	
769	ZIF-8	Zn	melm				2			1.2	18.67			390.pdf	ZIF-8
770	MIL-101	Cr	bdc				3							390.pdf	MIL-101
771	UiO-66	Zn	bdc				2							390.pdf	UiO-66
772	UiO-66-NH ₂	Zn	H2N-bdc				2			5.7				390.pdf	UiO-66
773	mmen-Mg ₂ (dobpdc)	Mg	H4DOBPDC ₄ ²⁻ (4,4'-dioxido-3,3'-biphenyldicarboxylate)	microwave-assisted	DEF/EtOH	solid	2	0.5	3270	2	49,000	298	0.00039	391.pdf	
774	Mg ₂ (dobpdc)	Mg	H4DOBPDC ₄ ²⁻ (4,4'-dioxido-3,3'-biphenyldicarboxylate)	solvothermal	DEF/EtOH	solid	2	72	1495	4.85		298	0.15	391.pdf	
775	dmpn-Mg ₂ (dobpdc)	Mg	H4DOBPDC ₄ ²⁻ (4,4'-dioxido-3,3'-biphenyldicarboxylate)	solvothermal	Toluene/MeOH	solid	2	24	948	2.42	882	313	0.15	392.pdf	

			3,3'-dicarboxylate)												
776	ZIF-8	Zn	2-methylimidazole	solvothermal	MeOH(C3H8O)	null		4	1173		Null		7	393.pdf	ZIF-8
777	Cu ₂ (OH) ₂ (IO ₆) ₂	Cu	BDC	thermal catalysis			0							394.pdf	UiO-66
778	CPO-27-Ni	Ni	H4DOBDC	all-water synthesis and spray-granulation	H ₂ O	solid		71	960	1		323	0.97	395.pdf	
779	Zeolite 13X					solid			740					395.pdf	
780	HKUST-1	Cu	BTC	hydrothermal	MeOH	solid	2	2						396.pdf	HKUST-1
781	Zr-fcu-MOF-BDC	Zr	1,4-benzenedicarboxylic acid (BDC)	solvothermal	DMF	solid		24			74%			397.pdf	
782	Zr-fcu-MOF-NH ₂ BDC	Zr	2-aminoBDC	solvothermal	DMF	solid		24			80%			397.pdf	
783	Zr-fcu-MOF-NDC	Zr	1,4-naphthalenedicarboxylic acid (NDC)	solvothermal	DMF	solid		24			94%			397.pdf	
784	Y-fcu-MOF-NDC	Y	1,4-naphthalenedicarboxylic acid (NDC)	solvothermal	DMF	solid	3	60						397.pdf	
785	ZIF-8	Fe, Co	2-methylimidazole	thermal activation		solid			707		Fe: 93%, Co: 45%			398.pdf	ZIF-8
786	MIL-53(Al)	Al	BDC	hydrothermal			3	252	970	3.67	8	273	1	399.pdf	MIL-53
787	Mg ₂ (dobpdc)	Mg	H4DOBPD C4a''	solvothermal	DMF/EtOH	purple powder	2	72	818	2.772097251		303		400.pdf	
788	1-epn@PDMS60	Mg	H4DOBPD C4a''	coating			2			2.272210861		303		400.pdf	
789	ZIF-	Co	2-	hydrothermal	MeOH	solid	2	24	1566					401.pdf	ZIF-67

	67(Co)		methylimidazole												
790	In@Co	In, Co		thermal decomposition		nanoparticle composite		2	107		87%			401.pdf	
791	APPAO	Ag	Polydopamine (PDA)	homogeneous precipitation	H ₂ O	small balls	1	0.5						402.pdf	
792	PNU-21	Zn	4,4'-stilbenedicarboxylate (stdb)	solvothermal	DMF/H ₂ O	crystalline	2	96	2.56	0.011599893		298		403.pdf	
793	PNU-22	Cd	4,4'-stilbenedicarboxylate (stdb)	solvothermal	DMF/H ₂ O	crystalline	2	96	1.5	0.062460962		298		403.pdf	
794	Cu ₂ Š,UiO-66	Cu	BDC			solid					100%		10	404.pdf	UiO-66
795	2MeIm@Co-BTC-1.0	Co	BTC	solvothermal	H ₂ O	solid		5	428		98.79%			405.pdf	
796	int-MOF-5	Zn	BDC	self-assembly	DMF			15						406.pdf	MOF-5
797	MOF-5	Zn	BDC	solvothermal	DMF	solid	2	4						407.pdf	MOF-5
798	ZIF-23	Zn	4-azabenzimidazole	solvothermal, microwave	DMF	crystalline		15						408.pdf	
799	MIL-101(Cr)-NH ₂	Cr	2-aminoBDC	solvothermal	DMF/EtOH	solid		24	1720	2.1		298	1	409.pdf	MIL-101
800	32.6EA@MIL-101(Cr)-NH ₂	Cr	amine	post-synthetic modification	anhydrous hexane	solid		12	605	3.4		298	1	409.pdf	MIL-101
801	TiO ₂ NTs	Ti		electrochemical anodization	Electrolytic solution containing fluoride ions	nanostructured								410.pdf	
802	TiO ₂ NTs + Pt	Pt		decoration with Pt										410.pdf	
803	CdS-TiO ₂	Cd		deposition	0.1 mol/L Na ₂ SO ₃ / 0.24 mol/L Na ₂ S	nanocrystalline								410.pdf	
804	FJI-H14	Cu	BTTA ₂	hydrothermal	H ₂ O	rod-shaped blue crystals		72	904	7.629160346	51	298	1.01325	411.pdf	
805	Zn ₂ (Atz)	Zn	Oxalate	modified		crystalline	2			1.35		273	0.84	412.pdf	

	2(ox)			procedure from previous reports											
806	Fe3+-N-C	Fe	2-methylimidazole	pyrolysis	N ₂	porous			772		Higher than 90%			413.pdf	
807	Calgary Framework 20 (CALF-20)	Zn	1,2,4-triazolate and oxalate	solvothetmal	H ₂ O/MeOHmixture	solid			528	4.07	230 (CO ₂ /N ₂)	293	1.2	414.pdf	
808	ZIF-8	Zn	2-methylimidazole	co-precipitation	MeOH	solid	2	24	1670	0.78		298	1	415.pdf	ZIF-8
809	0.1Ag@ZIF-8	Ag, Zn	2-methylimidazole	ion exchange	MeOH	solid	0	0.5	1637	0.78		298	1	415.pdf	ZIF-8
810	0.2Ag@ZIF-8	Ag, Zn	2-methylimidazole	ion exchange	MeOH	solid	0	0.5	1398	0.78		298	1	415.pdf	ZIF-8
811	0.5Ag@ZIF-8	Ag, Zn	2-methylimidazole	ion exchange	MeOH	solid	0	0.5	1282	0.78		298	1	415.pdf	ZIF-8
812	0.8Ag@ZIF-8	Ag, Zn	2-methylimidazole	ion exchange	MeOH	solid	0	0.5	1229	0.78		298	1	415.pdf	ZIF-8
813	ZnF(TZ)	Zn	1,2,4-triazolate (TZ)	microwave-assisted solvothetmal		prism-shaped morphologies, microsize d crystals	2			1.8	120	298	0	416.pdf	
814	ZnF(aTZ)	Zn	3-amino-1,2,4-triazolate (aTZ)	microwave-assisted solvothetmal		prism-shaped morphologies, microsize d crystals	2			1.8	120	298	0	416.pdf	
815	ZnF(daTZ)	Zn	3,5-diamino-1,2,4-triazolate (daTZ)	microwave-assisted solvothetmal		prism-shaped morphologies, microsize d crystals	2			1.8	120	298	0	416.pdf	
816	ZnF(dmT)	Zn	3,5-	microwave-		prism-	2							416.pdf	

	Z)		dimethyl-1,2,4-triazolate (dmTZ)	assisted solvothermal		shaped morphologies, microsize d crystals									
817	2-ampdâ ⁺⁺ Mg ₂ (dobpdc)	Mg	H4DOBDP C4â ⁺⁺ (4,4â ⁺⁺ -dioxidobiphenyl-3,3â ⁺⁺ -dicarboxylate)	grafting	Toluene	solid	2	12	618		1320	313	0.04	417.pdf	
818	Ni@ZrOF	Ni	NH ₂ -BDC	solvothermal	MeOH	solid	0	6	898	4.158145876	CO ₂ /N ₂ = 145.7; CO ₂ /CH ₄ = 12.65	273	10	418.pdf	
819	NH ₂ -MIL-53(Al)	Al	2-aminoBDC	hydrothermal	DMF	solid	3	72			up to 75	303	0.02	419.pdf	MIL-53
820	ZnCu-MOF-74	Zn, Cu	H4dhta	ball milling	H ₂ O/MeOH	crystalline		1.5	660					420.pdf	MOF-74
821	a-ZnCu-MOF-74	Zn, Cu	H4dhta	ball milling	MeOH	amorphous		1.5	2.6					420.pdf	MOF-74
822	Cu ₂ O@Cu-MOF	Cu	BTC	in situ chemical etching	Benzylalcohol/EtOH	solid	2	0.3	1467	3.729811725		298	1.01325	421.pdf	
823	Cu-MOF	Cu	BTC	solvothermal	EtOH/H ₂ O	solid	2	24	741	2.810743285		298		421.pdf	
824	Cu ₂ O	Cu			EtOH/H ₂ O	solid			44	0.370304274				421.pdf	
825	MOF 1	Sm	BTB	solvothermal	DMF/H ₂ O	crystalline	3	72	946.74	9.12		195	1.01325	422.pdf	MOF-1
826	MOF 2	Gd	BTB	solvothermal	DMF/H ₂ O	crystalline	3	72	834.26	8.89		195	1.01325	422.pdf	
827	HKUST-1	Cu	BTC	solvothermal	DMF/EtOH	solid		12	1409	2.1	100%	298	1	423.pdf	HKUST-1
828	HKUST-1 â ⁺⁺ 5ED	Cu	BTC	post-synthetic functionalization	Toluene	solid		4	881	2.4	100%	298	1	423.pdf	HKUST-1
829	HKUST-1 â ⁺⁺ 10ED	Cu	BTC	post-synthetic functionalization	Toluene	solid	2	4	838			298	1	423.pdf	HKUST-1
830	HKUST-1 â ⁺⁺ 20ED	Cu	BTC	post-synthetic functionalization	Toluene	solid	2	4	762	2.1		298	1	423.pdf	HKUST-1
831	{[Co ₂ (tzp	Co	5-(4-	solvothermal	DMF/H ₂ O	solid		72	455	2.846435264	31.8 -	298	1	424.pdf	

	a)(OH) (H ₂ O) ₂ ·DMF}		(tetrazol-5- yl) phenyl) isophthalic acid (H3tzpa)								33.1				
832	ZIF-8	Zn	2- methylimid azole	solution synthesis	MeOH	solid		24	1752					425.pdf	ZIF-8
833	MOF-5	Zn	BDC	solution synthesis	DMF	solid		2.5						425.pdf	MOF-5
834	NC-T (T=700, 800, 900 Å°C)			pyrolysis and acid treatment of zif-8		solid		4				~478%		425.pdf	
835	C-900	Zn		pyrolysis and acid treatment of mof-5		solid		4				~42%		425.pdf	
836	PEI@UiO -66	Zr		wet impregnation	MeOH	solid	4	12	37	1.65	251	338		426.pdf	UiO-66
837	MIL-101- Cr	Cr	BDC	hydrothermal	HF/H ₂ O	solid		8	3126.5	3.05				427.pdf	MIL-101
838	MIL-101- SO ₃ H	Cr	monosodium 2- sulfoBDC	one-pot synthesis	H ₂ O	solid	6	3	1936.9	2.04				427.pdf	MIL-101
839	MIL-101- EN	Cr	ethylenedia mine	post-synthetic modification	cyclohexane	solid		0.33333 3333	839.7	3.57	96.50%			427.pdf	MIL-101
840	MIL-101- DETA	Cr	diethylenetr iamine	post-synthetic modification	cyclohexane	solid		0.33333 3333						427.pdf	MIL-101
841	MIL-101- TETA	Cr	triethylenet etramine	post-synthetic modification	cyclohexane	solid		0.33333 3333						427.pdf	MIL-101
842	SO ₄ ²⁻ / ZIF-67- C@TiO ₂	Co		coating and thermal annealing	EtOH	solid		12	216	5.89	64.50%	361		428.pdf	ZIF-67
843	UiO-66- IL-ClO ₄	Zr	Isocyanate- terminated polyurethane oligomer	postsynthetic polymerization	Chloroform	nanopartic les	4	24	608.21	0.557642545	55.65	298	1.0132 5	429.pdf	UiO-66
844	Bi-MOF	Bi		solvothetmal		nano- bundles					97%			430.pdf	
845	Bi SAs/NC	Bi		thermal emission and adsorption		atomically dispersed					97%			430.pdf	
846	Bi-MOF	Bi		solvothetmal		nano- bundles					97%			430.pdf	

847	Bi SAs/NC	Bi		thermal emission and adsorption		n-doped carbon networks					97%			430.pdf	
848	ZIF-L	Zn	Hmim		H2O	solid			517		70.52%			431.pdf	
849	Cu/Cu2O	Cu		carbonization	0.5MKHCO ₃	composite solid		2	604		70.52%			431.pdf	
850	ZIF-8	Zn, Ni	2- methylimid azole	ionic exchange	MeOH/n/hexane	solid					over 71.9%			432.pdf	ZIF-8
851	{Co2(oba) 4(3- bpdh)2} ·4H2O	Co	oba and 3- bpdh	solvothermal	DMF/EtOH	nanospher e		24	40.29		96.00%			433.pdf	

