Supporting Information

Metal-Organic Frameworks (MOFs) beyond Crystallinity: Amorphous MOFs, MOF Liquids and MOF Glasses

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Table S1. Reported aMOFs.

aMOF	Stress	Highlights & Considerations	Ref.
a_p-ZIF-8	Pressure 0.34 GPa	• First porous aMOF • Accessible pore volume • Storage of I_2	[3,18]
a_p-ZIF-8	Pressure 1.9 GPa	• *In situ* TEM study • Irreversible morphological transition • BET surface area: 253 m^2/g	[17]
a_p-ZIF-8	Pressure 1.6 GPa Pressure 39 GPa	• Reversible amorphization • Irreversible amorphization	[19]
a_p-ZIF-4	Pressure 0.35-0.98 GPa	• Reversible amorphization	[28]
a_p-MOF-5	Pressure 3.5 MPa	• Irreversible amorphization • BET surface area: 6 m^2/g	[21]
a_p-MOF-5	Pressure 3.2 GPa	• DEF as pressure-transmitting medium	[29]
a_p-MOF-177	Mechanical compression	• The maximum excess volumetric hydrogen storage uptake increased 80%	[22]
a_p-$Zn(CN)_2$	Pressure and X-ray 3.2 GPa	• Isopropanol as pressure-transmitting medium • No accessible pore volume	[32]
a_p-Sc_2BDC_3	Pressure 0.4 GPa Pressure 3 GPa	• Fluorinert-77 as pressure-transmitting medium • Reversible amorphization • Methanol as pressure-transmitting medium	[33]
a_p-$Sc_2(NO_2\text{-}BDC)_3$	Pressure 2.6 GPa Pressure 3.3 GPa	• Fluorinert-77 as pressure-transmitting medium • Irreversible amorphization • Methanol as pressure-transmitting medium	[33]
a_p-NH_2-MIL-53(In)	Pressure 23 GPa	• Irreversible amorphization	[34]
a_p-UiO-66	Pressure 1.9 GPa	• Irreversible amorphization • BET surface area: 76 m^2/g • Mechanical energy absorber	[23]
a_p-Cu-BTC	Pressure 3.8 GPa	• Shock compression • Mechanical energy absorber	[25]
a_p-Cu-BTC-Fc	Pressure 5.8 GPa	• Shock compression • Mechanical energy absorber	[25]
a_p-$Co_2(BDC)_2DABCO{\cdot}4DMF{\cdot}H_2O$	Pressure 1.9 GPa	• Piezochromic aMOF	[35]
a_T-$Cu(Im)_2$	Temperature 110 °C	• Decomposition of $Cu(Him)_2(CO_3)_2{\cdot}H_2O$	[2]
a_T-$Ni(Im)_2$	Temperature 130 °C Temperature 260 °C	• Decomposition of $[Ni(Him)_2(Im)(CH_3COO)]$ • Decomposition of $Ni(acac)_2(Him)_2$)	[36]
a_T-$Pd(Im)_2$	Temperature 150 °C	• Decomposition of $Pd(Him)_2(im)_2$	[36]
a_T-$Pt(Im)_2$	Temperature 250 °C	• Decomposition of $Pt(Him)_2(im)_2$	[36]
a_T-$[ZnI_2]_3(TPT)_2$	Temperature 277 °C	• Precursor of a crystalline phase	[37,38]
a_T-$[(ZnBr_2)_3(TPT)_2]_n{\cdot}(H_2O)$ a_T-$[(ZnCl_2)(\mu\text{-}Cl)(ZnCl)(TPT)]_n$	Temperature 277 °C	• Precursor of a crystalline phase	[41]
a_T-ZIF-4	Temperature 300 °C	• Precursor of a crystalline phase • Reversible amorphization	[42,45]

a_T-ZIF-1 a_T-ZIF-3 a_T-Co-ZIF-4	Temperature 300 °C	• Precursor of a crystalline phase	[45]
a_T-ZIF-8	Temperature 250-350 °C	• Amorphization thanks to the protection of surrounding Matrimid® • Resulting to MMMs with the highest CO_2/CH_4 selectivities ever reported • BET surface area: 6 m^2/g	[50]
a_T-$Cu^I[Cu^{III}(pdt)_2]$	Temperature 120 °C	• Reversible amorphization • Conductive aMOF	[51]
a_T-Mn-250	Temperature 250 °C	• Catalytic activity for CO oxidation	[52]
a_T-HS-ZIF-67	Temperature 260 °C	• OER catalytic activity • Catalytic activity for nonenzymatic glucose sensing	[53]
a_m-CAU-7 a_T-CAU-7	Mechanical Ball milling Temperature 180 °C	• Controlled release of drugs	[59]
a_m-ZIF-1	Ball milling 25 Hz, 30 min	• Irreversible amorphization • BET surface area: 11 $m^2 g^{-1}$	[62]
a_m-ZIF-3	Ball milling 25 Hz, 30 min	• Irreversible amorphization • BET surface area: 21 $m^2 g^{-1}$	[62]
a_m-ZIF-4	Ball milling 25 Hz, 30 min	• Irreversible amorphization • BET surface area: 10 $m^2 g^{-1}$	[62]
a_m-ZIF-8	Ball milling 25 Hz, 30 min	• Irreversible amorphization • BET surface area: 56 $m^2 g^{-1}$	[62]
a_m-ZIF-8	Ball milling 30 Hz, 30 min	• Irreversible amorphization • BET surface area: 55 $m^2 g^{-1}$	[48]
a_m-ZIF-8 a_m-ZIF-69 a_m-ZIF-mnIm	Ball milling 25 Hz, 30 min	• Storage of I_2	[66]
a_m-UiO-66	Ball milling 20 Hz, 30 min	• Storage and controlled release of calcein	[67]
a_m-UiO-66 a_m-UiO-66-Br a_m-UiO-66-NO_2 a_m-UiO-66-NH_2 a_m-MIL-140B a_m-MIL-140C a_m-$[Zr_6O_4(OH)_4L7_6]_n$ a_m-$[Zr_6O_4(OH)_4L8_6]_n$	Ball milling 20 Hz, 30 min	• Storage and controlled release of calcein • Storage and controlled release of α-CHC	[68]
a_m-HKUST-1 a_m-Al-ndc a_m-ZIF-8 a_m-Zn-MOF-74	Ball milling 400 rpm, 60 min	• Identical EXAFS profile in pristine and amorphous phase • Reversible amorphization	[70]
a_m-UiO-66	Ball milling 400 rpm, 60 min	• Distinct EXAFS profile in pristine and amorphous phase • Irreversible amorphization	[70]
a_m-Ni-MOF-74	Ball milling 30 Hz, 90 min	• Irreversible amorphization • Significant decrease of the bulk magnetization	[71]
a_m-Zn-MOF-74	Ball milling 30 Hz, 90 min	• Reversible amorphization	[71]
a_m(S-IL@ZIF-8)	Ball milling 650 rpm, 15-30 min	• Partial amorphization • Storage of IL	[72]
a_I-ZIF-L	Scanning electron beam $1.1 \cdot 10^{-2}$ C cm^{-2}, 5 kV	• Stabilization in water	[75]
a_I-ZIF-4	Synchrotron X-ray radiation 6 min	• 50% of amorphization	[76]
a_I-ZIF-62	Synchrotron X-ray radiation 14 min	• 50% of amorphization	[76]
a_I-ZIF-zni	Synchrotron X-ray radiation 81 min	• 50% of amorphization	[76]
a_e-MOF-5	Electrical discharge	• ---	[78]
a_{CT}-LnHPA-I Ln = La, Ce, Pr, Sm, Eu, Gd, Tb, Dy	Dehydration Vacuum, RT	• Precursor of a crystalline phase	[79]

a_{CT}-$Cu^{I}_{1.8}(ttc)_{0.6}(ttcH_3)_{0.4}$	Dechlorination NH_3(aq) Vacuum, 130 °C	• Semiconductive aMOF • No accessible pore volume	[80]
a_{CT}-Co^{II}-MOF	Desolvation Vacuum, 320 °C	• Improved magnetic properties	[81]
a_{CT}-PCMOF-17	≥ 60% RH	• ---	[83]
a_{CT}-MOF-5	≥ 40% RH, RT	• ---	[84]
a_{CT}-Ni-MOF-74	≥ 40% RH, RT	• ---	[84]
a_{CT}-MIL-88B	Ligand competition *BDC-NH_2* & MeIm ligands	• BET surface area: 60.2 $m^2 g^{-1}$	[85]
a_{CT}-UiO-66	Loading ≥ 6, 10 and 14 wt%	• BET surface area: ~11 m^2/g • Catalytic activity for toluene oxidation	[86]
a-$Fe^{(III)}_3O(C_6H_3(COO)_3)_2NO_3$	Direct synthesis Sol-gel approach	• BET surface area: ~1618 m^2/g	[88]
a-Nd-TP	Direct synthesis ALD/MLD	• Precursor of a crystalline phase • Photoluminescence switching upon the amorphous-to-crystalline transition	[90]
a-ZIF-8	Direct synthesis Supersonic cold spraying	• ---	[92]
a-Zn(ICA)-2	Direct synthesis	• BET surface area: 251 $m^2 g^{-1}$	[93]
a-UiO-66	Direct synthesis	• Supercapacitor electrode material	[94]
a-UiO-66-SO_3H	Direct synthesis	• Precursor of a crystalline phase • BET surface area: 11 $m^2 g^{-1}$	[95]
a-Fe_1Ni_2(BDC-NH_2)	Direct synthesis	• BET surface area: 142.2 $m^2 g^{-1}$ • Catalytic activity for OER	[96]
a-FMM-120	Direct synthesis	• BET surface area: 42.6 $m^2 g^{-1}$ • Adsorbent for arsenic-contaminated water remediation	[97]
CPPs-1	Direct synthesis	• BET surface area: 584.7 $m^2 g^{-1}$ • Adsorbent for dyes-contaminated water remediation	[98]
CPPs-3	Direct synthesis	• BET surface area: 522.4 $m^2 g^{-1}$ • Adsorbent for dyes-contaminated water remediation	[98]
CPPs-5	Direct synthesis	• BET surface area: 587.5 $m^2 g^{-1}$ • Adsorbent for dyes-contaminated water remediation	[98]
a-Ni-pPD	Direct synthesis	• BET surface area: 35 $m^2 g^{-1}$	[99]
a-Zr-MOF(23)	Direct synthesis	• BET surface area: 410 $m^2 g^{-1}$	[100]
a-Zr-MOF(24)	Direct synthesis	• BET surface area: 955 $m^2 g^{-1}$	[100]
a-Zr-MOF(25)	Direct synthesis	• BET surface area: 535 $m^2 g^{-1}$	[100]
a-Zr-MOF(26)	Direct synthesis	• BET surface area: 546 $m^2 g^{-1}$	[100]
a-$[Ru(C_5H_5)\{B(CN)_4\}]_n$	Direct synthesis UV irradiation	• BET surface area: 80-202 $m^2 g^{-1}$	[101]
a-Ni^{++}-1,3,5-tribenzyl-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione	Direct synthesis Microwave-assisted hydrothermal technique	• BET surface area: 3181 $m^2 g^{-1}$ • CO_2 adsorbent	[102]
a-$Co(MeIm)_2$	Direct synthesis	• Precursor of a catalytic material	[104]
a-Fe-ZIF-67	Direct synthesis	• Precursor of a catalytic material	[105]
a-ZIF	Direct synthesis	• Enzyme encapsulation	[106]
NEU-2	Direct synthesis Liquid-liquid interface strategy	• BET surface area: 220.9 $m^2 g^{-1}$ • CO_2 adsorbent • Adsorptive separations	[110]
NEU-3	Direct synthesis Liquid-liquid interface strategy	• BET surface area: 94.2 $m^2 g^{-1}$ • Adsorptive separations	[111]
NEU-4	Direct synthesis Liquid-liquid interface strategy	• BET surface area: 293.8 $m^2 g^{-1}$ • Adsorptive separations	[111]
NEU-5	Direct synthesis Liquid-liquid interface strategy & metalloligand apporach	• BET surface area: 10.2 $m^2 g^{-1}$ • Precursor of a catalytic material	[112]
NEU-6	Direct synthesis Liquid-liquid interface strategy & metalloligand apporach	• BET surface area: 18.2 $m^2 g^{-1}$ • Precursor of a catalytic material	[112]

NEU-7	Direct synthesis Liquid-liquid interface strategy & metalloligand apporach	• BET surface area: 174.2 $m^2 g^{-1}$ • Precursor of a catalytic material	[112]
NEU-8	Direct synthesis Liquid-liquid interface strategy & metalloligand apporach	• BET surface area: 244.2 $m^2 g^{-1}$ • Precursor of a catalytic material	[112]
a-CoL NL	Direct synthesis	• BET surface area: 105.7 $m^2 g^{-1}$	[115]
a-Co-MOF-74-NP	Direct synthesis	• Precursor of a catalytic material	[117]
a-Ni-MOF-74.	Direct synthesis	• Nanoparticles encapsulation • Precursor of a catalytic material	[118]

Notation: amorphization by pressure (a_p); amorphization by heating (a_T); mechanical milling amorphization (a_m); amorphization by irradiation (a_I); amorphization by electrical discharge (a_e); amorphization by chemical treatment (a_{CT}); amorphous (a); 1,4-benzenedicarboxylate (BDC); 1,3,5-benzenetricarboxylate (BTC); ferrocene (Fc); 1,4-diazabicyclo[2.2.2]octane (DABCO); dimethylformamide (DMF); imidazole (Im); 2,4,6-tris(4-pyridyl)-1,3,5-triazine (TPT); 2,3-pyrazinedithiolate (pdt); hollow sphere (HS); 4-methyl-5-nitroimidazolate (mnIm); 4,4'-(1,2-diazenediyl)bis-benzoic acid) (L7); 4,4'-(1,2-ethenediyl)bis-benzoic acid) (L8); 2,6-naphthalenedicarboxylic acid (ndc); ionic liquid (IL); 2-hydroxyphosphonoacetate (HPA); trithiocyanurate (ttc); trithiocyanuric acid ($ttcH_3$); imidazole-2-carboxyaldehyde (ICA); p-phenylenediamine (pPD); 2-methylimidazolate (MeIm).

Table S2. Reported MOF liquids and MOF glasses.

MOF	Formula	T_m (°C)	MOF glasses	T_g (°C)	Highlights & Considerations	Ref.
ZIF-4	$Zn(Im)_2$	583	a_g-ZIF-4	292-316	• Glass formation: melt-quenching • ZIF-4 recrystallizes to ZIF-zni at 500 °C before melting • ZIF-4 liquid is a type 1 porous liquid	[5,120,124]
ZIF-GIS	$Zn(Im)_2$	590	a_g-ZIF-GIS	292	• Glass formation: melt-quenching • The addition of successively larger organic ligands to the MOF structures increases T_g and reduces T_m • a_g-ZIF-62 exhibits permanent accessible porosity	[120,151]
TIF-4	$Zn(Im)_{1.5}(mPhIm)_{0.5}$	467	a_g-TIF-4	318		
ZIF-62	$Zn(Im)_{1.75}(PhIm)_{0.25}$	437	a_g-ZIF-62	333		
ZIF-UC-**1a**	$Zn(Im)_{1.74}(PhIm)_{0.17}(mPhIm)_{0.09}$	433	a_g-ZIF-UC-**1a**	315	• Glass formation: melt-quenching • The inclusion of small amounts of PhIm decreases T_m in non-stoichiometric variants of ZIF-62 • Linear increment of T_g as the amount of mPhIm increased in the frameworks (a_g-ZIF-UC-**1b-e**) • a_g-ZIF-UC-**1a** and a_g-ZIF-UC-**1e** exhibit permanent accessible porosity	[144]
ZIF-UC-**1b**	$Zn(Im)_{1.66}(PhIm)_{0.22}(mPhIm)_{0.12}$	418	a_g-ZIF-UC-**1b**	305		
ZIF-UC-**1c**	$Zn(Im)_{1.68}(PhIm)_{0.17}(mPhIm)_{0.15}$	425	a_g-ZIF-UC-**1c**	311		
ZIF-UC-**1d**	$Zn(Im)_{1.59}(PhIm)_{0.27}(mPhIm)_{0.14}$	420	a_g-ZIF-UC-**1d**	310		
ZIF-UC-**1e**	$Zn(Im)_{1.61}(PhIm)_{0.18}(mPhIm)_{0.21}$	430	a_g-ZIF-UC-**1e**	316		
TIF-4	$Zn(Im)_{1.8}(mPhIm)_{0.2}$	440	a_g-TIF-4	350	• Glass formation: melt-quenching • The lower T_m of ZIF-UC-5 compared to TIF-4 was attributed to the electron withdrawing chlorine ligand which weakened the Zn-N coordination bond	[147]
ZIF-UC-5	$Zn(Im)_{1.8}(cPhIm)_{0.2}$	428	a_g-ZIF-UC-5	336		
ZIF-UC-2	$Zn(Im)_{1.87}(6\text{-Cl-5-FPhIm})_{0.13}$	406	a_g-ZIF-UC-2	250	• Glass formation: melt-quenching • The electron-withdrawing groups on the PhIm ligand yield a reduction in the T_m	[148]
ZIF-UC-3	$Zn(Im)_{1.81}(5\text{-Cl-2-mPhIm})_{0.19}$	390	a_g-ZIF-UC-3	336		
ZIF-UC-4	$Zn(Im)_{1.66}(FPhIm)_{0.34}$	421	a_g-ZIF-UC-4	290		
ZIF-UC-5	$Zn(Im)_{1.72}(cPhIm)_{0.28}$	432	a_g-ZIF-UC-5	320		
ZIF-76-mPhIm	Zn(Im)(mPhIm)	No melt	---	---	---	[147]
ZIF-76	Zn(Im)(cPhIm)	No melt	---	---	---	[147]
ZIF-76-mPhIm	$Zn(Im)_{1.33}(mPhIm)_{0.67}$	471	a_g-ZIF-76-mPhIm	317	• Glass formation: melt-quenching • The melting was assisted by impurities acting as a flux • a_g-ZIF-76 and a_g-ZIF-76-mPhIm exhibit permanent accessible porosity	[149]
ZIF-76	$Zn(Im)_{1.62}(cPhIm)_{0.38}$	451	a_g-ZIF-76	310		
ZIF-62(Co)	$Co(Im)_{1.70}(PhIm)_{0.30}$	432	a_g-ZIF-62(Co)	290	• Glass formation: melt-quenching • a_g-ZIF-62(Co) exhibits permanent accessible porosity	[174]

$Zn(Im)_{1.98}(PhIm)_{0.02}$	$Zn(Im)_{1.98}(PhIm)_{0.02}$	No melt	---	---		
$Zn(Im)_{1.97}(PhIm)_{0.03}$	$Zn(Im)_{1.97}(PhIm)_{0.03}$	370	a_g-$[Zn(Im)_{1.97}(PhIm)_{0.03}]$	292		
$Zn(Im)_{1.95}(PhIm)_{0.05}$	$Zn(Im)_{1.95}(PhIm)_{0.05}$	372	a_g-$[Zn(Im)_{1.95}(PhIm)_{0.05}]$	298	• Glass formation: melt-quenching • The limit of melting and formation of stable liquids that did not recrystallize to ZIF-zni(M) lied around x = 0.05 • a_g-ZIF-62 exhibits permanent accessible porosity • The specific surface areas for a_g-ZIF-62 materials (determined by NLDFT fitting of the CO_2 adsorption isotherms) range between 235 and 269 $m^2\ g^{-1}$	[145]
$Zn(Im)_{1.94}(PhIm)_{0.06}$	$Zn(Im)_{1.94}(PhIm)_{0.06}$	380	a_g-$[Zn(Im)_{1.94}(PhIm)_{0.06}]$	298		
$Zn(Im)_{1.88}(PhIm)_{0.12}$	$Zn(Im)_{1.88}(PhIm)_{0.12}$	395	a_g-$[Zn(Im)_{1.88}(PhIm)_{0.12}]$	303		
$Zn(Im)_{1.83}(PhIm)_{0.17}$	$Zn(Im)_{1.83}(PhIm)_{0.17}$	409	a_g-$[Zn(Im)_{1.83}(PhIm)_{0.17}]$	303		
$Zn(Im)_{1.76}(PhIm)_{0.24}$	$Zn(Im)_{1.76}(PhIm)_{0.24}$	423	a_g-$[Zn(Im)_{1.76}(PhIm)_{0.24}]$	305		
$Zn(Im)_{1.65}(PhIm)_{0.35}$	$Zn(Im)_{1.65}(PhIm)_{0.35}$	441	a_g-$[Zn(Im)_{1.65}(PhIm)_{0.35}]$	320		
$Co(Im)_{1.90}(PhIm)_{0.10}$	$Co(Im)_{1.90}(PhIm)_{0.10}$	386	a_g-$[Co(Im)_{1.90}(PhIm)_{0.10}]$	260		
$Co(Im)_{1.83}(PhIm)_{0.17}$	$Co(Im)_{1.83}(PhIm)_{0.17}$	410	a_g-$[Co(Im)_{1.83}(PhIm)_{0.17}]$	278		
$Co(Im)_{1.70}(PhIm)_{0.30}$	$Co(Im)_{1.70}(PhIm)_{0.30}$	432	a_g-$[Co(Im)_{1.70}(PhIm)_{0.30}]$	290		
$Zn(Im)_{1.7}(PhIm)_{0.3}$	$Zn(Im)_{1.7}(PhIm)_{0.3}$	447	a_g-$[Zn(Im)_{1.7}(PhIm)_{0.3}]$	328	• Glass formation: melt-quenching • The luminescence enhances by increasing the concentration level of Co ions	[178]
$Zn_{0.9}Co_{0.1}(Im)_{1.7}(PhIm)_{0.3}$	$Zn_{0.9}Co_{0.1}(Im)_{1.7}(PhIm)_{0.3}$	446	a_g-$[Zn_{0.9}Co_{0.1}(Im)_{1.7}(PhIm)_{0.3}]$	331		
$Zn_{0.5}Co_{0.5}(Im)_{1.7}(PhIm)_{0.3}$	$Zn_{0.5}Co_{0.5}(Im)_{1.7}(PhIm)_{0.3}$	452	a_g-$[Zn_{0.5}Co_{0.5}(Im)_{1.7}(PhIm)_{0.3}]$	334		
$Zn(Im)_{1.95}(cPhIm)_{0.05}$	$Zn(Im)_{1.95}(cPhIm)_{0.05}$	366	a_g-$[Zn(Im)_{1.95}(cPhIm)_{0.05}]$	296	• Glass formation: melt-quenching	[152]
$Zn(Im)_{1.95}(PhIm)_{0.025}(cPhIm)_{0.025}$	$Zn(Im)_{1.95}(PhIm)_{0.025}(cPhIm)_{0.025}$	356	a_g-$[Zn(Im)_{1.95}(PhIm)_{0.025}(cPhIm)_{0.025}]$	296	• Glass formation: melt-quenching	
$Zn_{0.8}Co_{0.2}(Im)_{1.95}(PhIm)_{0.025}(cPhIm)_{0.025}$	$Zn_{0.8}Co_{0.2}(Im)_{1.95}(PhIm)_{0.025}(cPhIm)_{0.025}$	310	a_g-$[Zn_{0.8}Co_{0.2}(Im)_{1.95}(PhIm)_{0.025}(cPhIm)_{0.025}]$	288	• Glass formation: melt-quenching	
$[[Co(\mu\text{-}NCS)_2(C_5H_5N_3O)_2]\cdot C_5H_5N_3O]_n$	---	197	a_g-$[[Co(\mu\text{-}NCS)_2(C_5H_5N_3O)_2]\cdot C_5H_5N_3O]_n$	78	• Glass formation: melt-quenching	
$[Cd(\mu\text{-}NCS)_2(C_5H_5N_3O)_2]_n$	---	205	a_g-$[Cd(\mu\text{-}NCS)_2(C_5H_5N_3O)_2]_n$	---	• Glass formation: melt-quenching • $[Cd(\mu\text{-}NCS)_2(C_5H_5N_3O)_2]_n$ recrystallizes at 144 °C upon cooling from 220 °C	
$Cu_2(SCN)_3(C_2bpy)$	---	187	a_g-$[Cu_2(SCN)_3(C_2bpy)]$	68	• Glass formation: melt-quenching • T_m is influenced by the substituent group on pyridinium ligands	[176]
$Cu_2(SCN)_3(C_4bpy)$	---	138	a_g-$[Cu_2(SCN)_3(C_4bpy)]$	59		
$Cu_8(SCN)_{12}(Phbpy)_4$	---	217	a_g-$[Cu_8(SCN)_{12}(Phbpy)_4]$	71		
$Cu(SCN)_2(3\text{-}Pybpy)$	---	203	a_g-$[Cu(SCN)_2(3\text{-}Pybpy)]$	72		
$[\{Zn_2(HPO_4)_2(H_2PO_4)\}(cPhImH^+)_2\cdot(H_2PO_4^-)\cdot(MeOH)]_n$	---	148	a_g-$[[\{Zn_2(HPO_4)_2(H_2PO_4)\}(cPhImH^+)_2\cdot(H_2PO_4^-)\cdot(MeOH)]_n]$	72	• Glass formation: melt-quenching	[177]
[Cd(sdc)(L4)]·DMF	---	---	---	---	• Glass formation: ultrafast melting *via* femtosecond IR laser pulses	[153]
[Cd(DMF)(sdc)(L6)]·DMF	---	---	---	---		
[Zn(sdc)(L6)]·DMF	---	---	---	---		

CdTz-40	---	---	a_g-CdTz-40	79	• Glass formation: Solvent-free mechanical milling under an Ar atmosphere • Milling times are 40, 240, and 500 minutes, yielding a_g-CdTz-40, a_g-CdTz-240, and a_g-CdTz-500, respectively	[189]
CdTz-240	---	---	a_g-CdTz-240	85		
CdTz-500	---	---	a_g-CdTz-500	90		
CrTz	---	---	a_g-CrTz	62	• Glass formation: Solvent-free mechanical milling under an Ar atmosphere	[190]
MnTz	---	---	a_g-MnTz	81		
Ti-BPA	---	---	a_g-Ti-BPA	---	• Glass formation: assembling metal nodes and organic struts and subsequent evaporation of a plasticizer-modulator solvent. • $^{(\#)}$Surface area of a_g-Ti-BPA 330 $m^2\ g^{-1}$ • $^{(\#)}$Surface area of a_g-Ti-BPP 267 $m^2\ g^{-1}$	[191]
Ti-BPP	---	---	a_g-Ti-BPP	---		
$[Ag(pL2)(CF_3SO_3)]\cdot 2C_6H_6$	---	271	a_g-$[Ag(pL2)(CF_3SO_3)]\cdot 2C_6H_6$	161	• Glass formation: melt-quenching	[193]
$[Ag(pL2)(CF_3SO_3)]\cdot 2C_6H_6$	---	---	a_g-$[[Ag(pL2)(CF_3SO_3)]\cdot 2C_6H_6]$	107	• Glass formation: mechanical hand-grinding in Ar atmosphere • a_g-$[Ag(pL2)(CF_3SO_3)]\cdot 2C_6H_6$ exhibits permanent accessible porosity	
$[Ag(mL1)(CF_3SO_3)]\cdot 2C_6H_6$	---	169	a_g-$[[Ag(mL1)(CF_3SO_3)]\cdot 2C_6H_6]$	68	• Glass formation: melt-quenching	[194]
$[Ag(mL1)(CF_3SO_3)]\cdot 2C_6H_6$	---	----	a_g-$[[Ag(mL1)(CF_3SO_3)]\cdot 2C_6H_6]$	68	• Glass formation: mechanical hand-grinding in Ar atmosphere • a_g-$[[Ag(mL1)(CF_3SO_3)]\cdot 2C_6H_6]$ exhibits permanent accessible porosity	
$(ZIF\text{-}4\text{-}Zn)_{0.5}(ZIF\text{-}62)_{0.5}$	---	590	$(ZIF\text{-}4\text{-}Zn)_{0.5}(ZIF\text{-}62)_{0.5}$ blend	306	• Glass formation: melt-quenching	[6]
$(ZIF\text{-}4\text{-}Co)_{0.5}(ZIF\text{-}62)_{0.5}$	---	425	$(ZIF\text{-}4\text{-}Co)_{0.5}(ZIF\text{-}62)_{0.5}$ blend	300		
(ZIF-8)(ZIF-62)(20/80)	---	500	a_g-$[(ZIF\text{-}8)_{0.2}(ZIF\text{-}62)_{0.8}]$	334	• Flux melted MOF glass • Surface area of a_g-$[(ZIF\text{-}8)_{0.2}(ZIF\text{-}62)_{0.8}]$ $^{(+)}202\ m^2\ g^{-1}$ • Surface area of a_g-$[(ZIF\text{-}67)_{0.2}(ZIF\text{-}62)_{0.8}]$ $^{(+)}194\ m^2\ g^{-1}$	[7]
(ZIF-67)(ZIF-62)(20/80)	---	497	a_g-$[(ZIF\text{-}67)_{0.2}(ZIF\text{-}62)_{0.8}]$	---		
$(MIL\text{-}53)_{0.25}(ZIF\text{-}62)_{0.75}$	---	---	$(MIL\text{-}53)_{0.25}(a_g\text{-}ZIF\text{-}62)_{0.75}$	310	• Flux melted MOF glass	[8]
$(UiO\text{-}66)_{0.25}(ZIF\text{-}62)_{0.75}$	---	---	$(UiO\text{-}66)_{0.25}(a_g\text{-}ZIF\text{-}62)_{0.75}$	---	• Flux melted MOF glass	

Notation: imidazole (Im); glass phase (a_g); 5-methylbenzimidazolate (mPhIm); benzimidazolate (PhIm); *chlorobenzimidazolate (*cPhIm); 4,4′-stilbenedicraboxylate (sdc); dimethylformamide (DMF); 1,4-di(1H-imidazol-1-yl)butane (L4); 1,6- di(1H-imidazol-1-yl)hexane (L6); 6-chloro-5-fluorobenzimidazolate (6-Cl-5-FPhIm); 5-chloro-2-methylbenzimidazolate (5-Cl-2-mPhIm); 5-fluorobenzimidazolate (FPhIm); 1-ethyl-[4,4'-bipyridin]-1-ium thiocyante (C_2bpySCN); 1-butyl-[4,4'-bipyridin]-1-ium thiocyante (C_4bpySCN); 1-phenyl-[4,4'-bipyridin]-1-ium thiocyanate (PhbpySCN); 3,1':4',4''-terpyridin]-1'-ium thiocyanate (3-PybpySCN); 1,2,4-triazole (Tr); 2,2-Bis(4-hydroxyphenyl)propane (BPA); 2,2-Bis(4-hydroxyphenyl)propane (BPP); 1,3,5-tris(4-ethynylbenzonitrile)benzene (*p*L2); 1,3,5- tris(3-cyanophenylethynyl)benzene (*m*L1).

$^{(\#)}$ Analysis of the N_2 isotherm

$^{(+)}$ Analysis of the CO_2 isotherm