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Structural variety of heterosynthons in linezolid cocrystals with modified thermal properties Mehrnaz Khalaji, Aneta Wróblewska, Ewelina Wielgus, Grzegorz D. Bujacz, Marta K. Dudek and Marek J. Potrzebowski

page

to

S1. Structural variety of heterosynthons in linezolid cocrystals with modified thermal properties

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Item

Figures S1. ¹³ C CPMAS NMR spectra of 3,4-DHBA and its monohydrate before and after grinding with water.	2
Figure S2. ¹³ C CPMAS NMR spectra of coformers in their crystalline forms used for	3
grinding with LIN.	
Figure S3. Solution ¹ H NMR spectra in anhydrous acetone- d_6 for the analyzed cocrystals.	4
Figure S4. PXRD diffractograms for the obtained cocrystals of LIN.	6
Figures S5-S9. DSC curves for pure coformers used to prepare cocrystals of LIN.	7
Figure S10. Calibration curves from MS measurements used for the calculations of water	10
solubility of LIN.	
Table S1. Numerical data from the MS measurements used to calculate water solubility of	11
the analyzed cocrystals.	
Table S2. Numerical data from the calculations of stabilization energies of the studied cocrystals.	12
Table S3. Experimental and theoretical ¹³ C chemical shifts for LIN form II and III.	13
Figure S11. Experimental ¹³ C chemical shifts vs. calculated shielding constants for LIN	13
forms II and III.	
Table S4. Experimental and theoretical ¹³ C chemical shifts for LIN cocrystals.	15
Figure S12. Experimental ¹³ C chemical shifts vs. calculated shielding constants for LIN	17
cocrystals.	
Table S5. Geometrical data for the observed hydrogen bonds	18
Table S6. A comparison of the torsion angle values for all confromations of LIN found in	19
its crystal structures	



Figure S1. ¹³C CPMAS spectra of 3,4-DHBA registered with a spinning speed of 8 kHz: (a) commercial, amorphous sample, (b) commercial sample recrystallized from water, corresponding to 3,4-DHBA monohydrate and (c) commercial sample ground for 1h with 100 μ L of water.



Figure S2. ¹³C CPMAS spectra of coformers in their crystalline forms as used to obtained cocrystals with LIN.





Figure S3. ¹H NMR spectra in anhydrous acetone- d_6 of cocrystals of LIN with 2,6-DHBA (a), BA (b), 3,4-DHBA (c, d, e), GA (f) and PHBA (g).



Figure S4. A comparison of the experimental powder X-Ray diffractograms for LIN:BA, LIN:PHBA:H₂O, LIN:2,6-DHBA, LIN:3,4-DHBA:H₂O and LIN:GA:H₂O samples obtained after mechanochemical grinding of LIN form II with appropriate coformers and simulated PXRD patterns for the crystallographic solutions from single crystal X-ray diffraction experiments.



Figure S5. DSC curve for pure benzoic acid used for the mechanochemical preparation of LIN:BA cocrystal



Figure S6. DSC curve for pure 2,6-dihydroxybenzoic acid used for the mechanochemical preparation of LIN:2,6-DHBA cocrystal



Figure S7. DSC curve for pure monohydrate of 3,4-dihydroxybenzoic acid used for the mechanochemical preparation of LIN:3,4-DHBA:H₂O cocrystal



Figure S8. DSC curve for pure monohydrate of gallic acid used for the mechanochemical preparation of LIN:GA:H₂O cocrystal



Figure S9. DSC curve for pure p-hydroxybenzoic acid used for the mechanochemical preparation of LIN:PHBA:H₂O cocrystal.



Figure S10. Calibration curves from MS measurements used for the calculations of water solubility of LIN.

	time [h]		Conce	entration	of LIN i	in each s	ample [n	g/ml]ª		Mean concentration [ng/ml]	Solubility [mg/ml]	RSD [%] ^b
	12h	260.5	252.5	255.5	254.3	250.3	264.6	245.2	252.8	- 255.0	2.55	2.10
_		259.7	251.1	256.0	254.8	250.8	265.7	252.9	253.3			
Ξ	24h	288.7	296.9	292.7	276.7	302.3	286.0	309.0	311.4	- 293.9	2.94	4.34
		290.7	286.9	275.9	274.5	302.4	286.5	310.8	310.3		, _	
E	36h	277.4	273.3	272.6	254.1	266.9	274.9	267.8	272.4	- 270.3	2.70	2.71
_		278.7	275.2	273.6	255.0	264.0	275.3	267.8	275.0			
	48h	263.6	261.3	243.6	248.8	274.7	271.7	272.6	276.7	- 264.6	2.65	4.37
_		265.5	260.3	244.0	253.5	274.3	272.3	274.0	276.2			
	12h	259.4	257.9	270.0	273.0	241.9	245.1	254.4	254.3	256.3	2.56	3.70
_		259.8	258.3	263.4	269.3	244.9	245.6	250.3	252.9			
34	24h	313.5	315.8	315.5	324.1	316.3	318.2	327.9	330.5	- 321.9	3.22	1.76
÷		320.5	326.1	315.9	324.5	321.0	322.4	327.5	330.8			
E	36h	313.2	321.4	320.6	31/.4	310.0	302.6	313.4	299.0	- 313.0	3.13	3.47
		333.2	328.1	$\frac{31/./}{295.0}$	321.7	310.4	303.0	294.5	301.7			
	48h	304.5	2/9.8	285.9	282.9	275.2	2/5./	275.3	273.0	- 281.3	2.81	3.30
_		301.2	281.7	282.5	281.8	2/5.0	2/6.1	2/5./	2/3.4			
	12h	175.2	171.1	172.9	172.0	1/4.8	1/4.0	1/0.5	1/0.0	- 173.3	1.73	1.71
H ₂ C		205.0	205.9	1/3.8	1/3.2	107.1	100.0	104.4	201.0			
A:]	24h	205.0	205.8	208.2	203.1	197.1	198.0	194.4	201.0	- 201.1	2.01	2.09
HB		204.0	202.9	$\frac{205.0}{216.4}$	202.8	215.0	208.0	197.1	198.5			
Ē	36h	221.5	213.2	216.4	223.0	215.0	208.0	227.4	219.0	217.8	2.18	2.72
Ę		109.1	100.0	105.4	102.4	100.2	207.0	170.4	19.2			
Η	48h	198.1	198.8	195.4	192.4	190.2	$\frac{10/./}{197.2}$	179.4	103.0	- 190.3	1.90	3.43
_		248.5	260.8	262.2	266.6	266.0	$\frac{107.5}{260.4}$	250.0	262.0			
	12h	240.4	254.1	202.2	261.6	265.5	209.4	256.8	262.9	- 262.2	2.62	2.35
Ř		203.0	254.1	257.1	201.0	203.5	273.3	230.8	207.7			
ΗQ	24h	237.7	209.2	208.2	277.5	201.1	274.3	270.4	211.2	- 273.8	2.74	2.31
ę		277.9	270.9	274.2	272.0	282.3	284.5	278.5	282.3			
2:2	36h	280.0	284.0	276.5	280.0	202.5	204.5	278.5	202.5	- 280.5	2.80	0.97
5		270.8	200.9	270.3	200.7	313.3	306.8	280.0	207.6			
	48h	200.7	303.4	294.3	298.4	515.5	500.8	209.0	297.0	- 298.0	2.98	2.46
_		340.4	335.6	338.6	340.8	337.6	344.3	343.7	349.9			
¹ 20	12h	341.8	338.9	339.5	343.9	557.0	577.5	545.7	JT7.7	- 341.3	3.41	1.11
H:		415.6	413.3	416.4	418.1	420.9	426.7	435.1	409.6			
IB/	24h	415.6	410.0	425.6	431.7	420.7	420.7	455.1	407.0	- 419.9	4.20	1.97
- Iq		349.7	352.0	358.6	348.2	342.4	359.7	338.9	346.2			
3,4	36h	350.1	332.0	357.8	363.6	353.7	357.6		510.2	- 350.8	3.51	2.46
Ë		337.0	330.1	329.5	324.6	325.0	333.7	320.5	326.5			
	48h	338.1	337.2	334.4	339.2	335.6	333.0	341.3	337.2	- 332.7	3.33	1.75
		174.3	173.8	179.8	178.4	167.4	160.1	164.9	165.1			
_	12h	179.8	179.3	185.5	184.1	172.7	170.4	172.8	170.3	- 173.7	1.74	4.14
$\mathbf{I}_2 \mathbf{C}$	• 41	231.7	227.4	218.4	215.7	227.7	234.2	224.6	224.5		• • •	
A:F	24h	224.1	227.9	225.4	222.6	235.1	235.9	220.4	222.8	- 226.2	2.26	2.59
Ğ	20	212.7	215.0	212.2	203.3	183.8	185.0	189.8	188.8	2 00 1	• • •	() (
Ä	36h	219.5	209.0	211.8	213.4	188.0	187.0	192.2	194.9	- 200.4	2.00	6.36
Ţ	401	188.5	189.9	187.1	186.8	194.9	192.4	194.5	190.5	102.2	1.00	
	48h	191.6	193.0	201.1	197.5					- 192.3	1.92	2.20

Table S1. Numerical data used to calculate water solubility of the obtained cocrystals.

^a Concentration of linezolid in samples after dilution; ^bRelative Standard Deviation

Table S2. Numerical data from the calculations of stabilization energies of the studied cocrystals. N and n denote number of molecules in a crystallographic unit cell and number of molecules in a formula unit, respectively.

crystal structures		CCDC refcodes	E ^{total}	N	E ^{total} / N	$E^{coformer} + E^{LIN} / n$
		or deposition	(kJ/mol)		(kJ/mol)	
		numbers				
	BA	BENZAC13	-802469	4	-200617.22	-394323.96
						-292183.58
10			071071	4	242002 74	(max)
nent	IIIDA	JOZZIIIOI	-9/19/1		-242772.74	-292184.74
ıodu						(min)
con	3,4-DHBA*H ₂ O	BIJDON03	-1323525	4	-330881.33	259459 22
oure	3,4-DHBA	WUYNUA	-1712090	6	-285348.37	558458.22
<u>1</u>	2,6-DHBA	LEZJAB01	-1141401	4	-285350.37	-436690.53
	GA*H ₂ O	KONTIQ01	-1492996	4	-373249.04	-320426.58
	LIN II	TIYQAU01	-2352123	4	-588030.69	
						E ^{stab} (kJ/ mol of
						molecules)
	SELIN:BA	1993998	-1577296	4	-394324.01	-0.05
	ELIN:PHBA:H2O	1997194	-3506298	12	-292191.51	-2.981.81
	³ LIN:3,4-	1994000	-7169307	21	-358465 34	-7 13
	DHBA:H ₂ O	1774000	/10/50/	<i>2</i> 1	550405.54	7.15
	LIN:2,6-DHBA	1994001	-3493622	8	-436702.70	-12.17
	LIN:GA:H ₂ O	1993999	-7690305	24	-320429.36	-2.78

Table S3. Experimental (δ_{exp}) and theoretical ¹³C chemical shifts (δ_{calc}) and shielding constants (σ_{calc}) for LIN form II and III, together with the regression curve calculated after plotting δ_{exp} *vs.* σ_{calc} and RMSD values for (δ_{exp} and δ_{calc}) pairs.

LIN forr	n II			LIN for	m III		
atom	δ_{exp} (ppm)	$\sigma_{calc} (ppm)$	δ_{calc} (ppm)	atom	δ_{exp} (ppm)	σ_{calc} (ppm)	δ_{calc} (ppm)
C1	23.75	149.87	22.37	C1A	21.44	152.52	18.78
C2	170.35	0.59	169.71	C2A	170.47	0.74	169.49
C3	43.63	128.27	43.69	C3A	42.95	128.26	42.87
C4	73.50	95.48	76.06	C4A	72.65	94.67	76.22
C5	48.59	122.89	49.00	C5A	47.81	122.19	48.89
C6	157.30	14.49	155.99	C6A	154.51	16.66	153.68
C7	134.13	38.04	132.75	C7A	133.28	38.43	132.06
C8	109.57	61.51	109.58	C8A	106.24	65.53	105.15
C9	157.30	9.84	160.58	C10A	136.00	33.85	136.61
C10	138.80	32.28	138.43	C11A	117.46	52.51	118.08
C11	119.93	51.55	119.41	C12A	113.86	55.27	115.34
C12	118.87	53.47	117.52	C1B	20.98	153.40	17.90
C13	52.52	122.71	49.18	C2B	170.94	-0.35	170.57
C14	67.01	104.9	66.76	C3B	42.85	128.69	42.44
C15	67.01	101.07	70.54	C4B	72.65	94.91	75.98
C16	52.52	118.64	53.20	C5B	47.81	122.09	48.99
				C6B	154.51	16.60	153.74
				C7B	133.28	38.04	132.45
				C8B	105.16	67.10	103.59
				C10B	136.00	34.03	136.43
				C11B	119.55	50.59	119.99
				C12B	112.93	56.75	113.87
regressic curve	$\delta_{calc} =$	$(\sigma_{calc} - 172.54)$	/ -1.0132		$\delta_{calc} = (\sigma_{calc})$	alc - 171.43) /	-1.0071
RMSD		1.76				1.59	

LIN_II

fmental chemical shifts (ppm)

LIN_III

rimental chemical shifts (ppm)

Figure S11. Experimental ¹³C chemical shifts *vs.* calculated shielding constants for LIN forms II and III

Table S4. Experimental (δ_{exp}) and theoretical ¹³C chemical shifts (δ_{calc}) and shielding constants (σ_{calc}) for the cocrystals of LIN, together with the regression curve calculated after plotting δ_{exp} *vs.* σ_{calc} and RMSD values for (δ_{exp} and δ_{calc}) pairs.

	LIN:BA			LIN:PHBA:H ₂ O			LIN:2,6-DHBA:H ₂ O		
atom	δ_{exp}	σ_{calc}	δ_{calc}	δ_{exp}	σ_{calc}	δ_{calc}	δ_{exp}	σ_{calc}	δ_{calc}
atom	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
C1	21.54	152.00	19.33	22.04	151.80	19.30	22.09	152.48	20.12
C2	175.37	-5.22	173.66	175.54	-5.76	174.08	174.93	-3.54	172.47
C3	42.89	127.57	43.31	43.04	127.52	43.15	46.76	124.87	47.09
C4	67.73	100.54	69.84	68.2	99.32	70.85	70.41	98.60	72.74
C5	47.41	123.32	47.48	47.11	123.83	46.78	48.88	122.36	49.54
C6	153.02	17.97	150.90	152.93	17.17	151.55	153.3	16.73	152.68
C7	133.1	36.65	132.56	135.09	33.61	135.40	130.27	41.48	128.51
C8	105.16	66.37	103.39	105.67	64.59	104.97	106.71	64.94	105.60
C9	156.3	10.10	158.62	156.5	9.52	159.07	155.65	10.62	158.65
C10	134.15	35.39	133.80	130.57	38.62	130.48	136.99	33.35	136.45
C11	118.35	51.74	117.75	118.8	50.08	119.22	119.42	51.33	118.89
C12	112.42	57.31	112.28	113.71	56.24	113.17	111.77	59.50	110.92
C13	53.27	117.01	53.68	51.26	118.32	52.19	52.22	121.62	50.26
C14	66.92	102.90	67.53	66.42	101.18	69.03	68.46	100.80	70.59
C15	68.71	98.80	71.55	66.42	100.91	69.29	68.46	100.41	70.97
C16	49.31	124.01	46.80	49.43	123.86	46.75	52.22	119.02	52.80
C1'	128.74	41.00	128.29	120.91	50.23	119.08	102.29	69.04	101.60
C2'	129.61	37.61	131.62	133.37	36.99	132.08	159.3	8.66	160.56
C3'	127.11	41.47	127.83	112.99	57.32	112.11	106.71	64.86	105.68
C4'	134.15	35.13	134.05	160.34	6.14	162.39	134.37	35.77	134.09
C5'	127.11	41.96	127.35	115.17	54.54	114.84	107.68	64.18	106.35
C6'	128.74	39.72	129.55	133.37	35.02	134.02	163.31	4.08	165.03
C7'	169.39	-0.77	169.29	169.21	0.05	168.37	171.19	-2.82	171.77
regression curve	$\delta_{calc} = (\sigma_c$	_{alc} – 171.69	9)/-1.0187	$\delta_{calc} = (\sigma_c$	_{alc} – 171.45	5) / -1.0118	$\delta_{calc} = (\sigma_{cal})$	_c - 173.09)	/ -1.0241
RMSD		1.42			1.62			1.53	

Table S4 continuation

	LIN:3,4	-DHBA:H ₂	0	LIN:GA:	H ₂ O					
atom	δ _{exp} (ppm)	σ _{calc} (ppm)	δ _{calc} (ppm)	δ _{exp} (ppm)	σ _{calc} (ppm)	δ _{calc} (ppm)	atom	δ _{exp} (ppm)	σ _{calc} (ppm)	δ _{calc} (ppm)
C1A	23.99	149.31	23.28	21.36	152.56	19.30	C1C	21.73	151.17	20.67
C2A	173.44	-5.10	174.42	173.61	-2.29	171.55	C2C	173.61	-3.03	172.27
C3A	43.10	128.61	43.54	42.71	129.52	41.95	C3C	45.26	126.09	45.32
C4A	72.70	96.14	75.32	72.89	95.42	75.48	C4C	72.89	95.68	75.22
C5A	49.23	123.35	48.69	48.10	122.68	48.68	C5C	48.10	123.15	48.22
C6A	152.89	18.27	151.55	154.33	16.94	152.64	C6C	154.67	16.42	153.15
C7A	133.74	37.44	132.78	132.66	37.90	132.03	C7C	132.66	39.28	130.68
C8A	104.00	67.87	103.00	108.49	62.40	107.94	C8C	108.49	62.69	107.66
C9A	155.56	9.98	159.66	156.27	10.78	158.70	C9C	156.27	10.80	158.68
C10A	133.91	36.41	133.79	135.84	35.34	134.55	C10C	136.10	34.05	135.82
C11A	117.97	52.33	118.21	118.48	52.59	117.59	C11C	115.88	54.36	115.85
C12A	110.35	59.92	110.78	111.19	58.73	111.55	C12C	111.19	59.07	111.22
C13A	51.17	121.25	50.74	54.33	118.28	53.00	C13C	54.60	117.86	53.42
C14A	66.81	102.88	68.73	67.23	102.11	68.90	C14C	66.91	102.62	68.40
C15A	67.08	101.25	70.32	66.91	102.35	68.67	C15C	67.23	101.99	69.02
C16A	46.39	126.88	45.23	48.10	124.55	46.84	C16C	48.10	124.27	47.11
C1'A	122.17	47.94	122.50	118.29	52.80	117.38	C1'C	118.49	52.46	117.72
C2'A	115.61	55.16	115.44	110.50	60.66	109.65	C2'C	110.50	60.13	110.18
C3'A	143.76	23.54	146.39	145.79	21.80	147.86	C3'C	145.42	21.91	147.75
C4'A	153.18	16.16	153.61	139.04	27.87	141.89	C4'C	139.04	28.13	141.64
C5'A	116 55	52.56	117 98	145.24	22.52	147.15	C5'C	145 42	21.94	147.72
C6'A	127.02	42.64	127.69	107.96	64 04	106.33	C6'C	108.22	63.02	107.33
C7'A	173 72	-5.21	174 53	176.61	-5.04	174 25	C7'C	176.61	-4 79	174.00
C1B	23.20	150.60	22.01	21.73	151 41	20.43	C1D	21.73	151.60	20.24
C2B	177 44	-6.81	176.10	177.09	-6.48	175.67	C2D	173.61	-3.08	172.32
C3B	44 10	127.52	44 61	44 21	127 38	44.06	C3D	44 21	127.56	43.88
C4B	72.70	96.33	75.14	73.29	94 77	76.12	C4D	72.89	95.43	75 47
C5B	47.50	124 22	47 84	48.10	124.83	46 56	C5D	48.10	123 20	48.17
C6B	151 70	20.59	149.28	154 67	16 66	152.92	C6D	154 33	17.04	152.54
C7B	132.24	39.27	130.99	132.66	38.95	131.00	C7D	137.66	38.47	131.47
C8B	104 53	66 78	104.06	108 22	63 59	106 77	C8D	107.42	64.85	105 54
C9B	155 56	10.68	158.98	156.22	9.92	159 54	C9D	156.27	10.05	159.41
C10B	134.16	35.89	134 30	136.10	34.15	135.72	C10D	136.10	34.25	135.62
CliB	116.02	53.61	116.95	115.88	54.36	115.85	CLID	118 49	52.01	118.16
C12B	111 19	59.69	111.00	111.00	58.83	111.05	C12D	111 19	52.01 58.77	111.10
C13B	50.64	123 56	48.48	54.60	117.68	53 59	C13D	54.60	117 25	54.02
C14B	50.04 66.81	102.97	68 64	66 12	103 50	67 54	C14D	67 59	101.20	69.80
C15B	67.08	102.97	69.53	67.59	105.50	70.00	C15D	66.91	102.57	68.45
C16B	47.50	102.00	45 7A	48.10	124.26	/0.00 /7 12	C16D	48.10	102.57	47.66
C1'B	120.62	50 57	110 03	117 75	53 20	116.00		118 29	52.82	117.36
C1B C2'B	120.02	53.21	117.35	117.75	55.20 61.37	10.99	$C^{2'}D$	110.29	52.82 60.18	117.50
C2 D	1/2 52	23.21 23.70	1/6 22	1/5/12	21.00	1/7 67		1/5 2/	22 20	1/7 20
	143.33	23.70 14.29	140.23	140.42	21.77 27.52	147.07		143.24	22.37 28.15	141.20
C4 D	133.18	14.20 52.00	133.43	139.04	21.33	142.23	C4 D	139.04	20.13 22.05	141.02
	110.33	55.00 11 74	117.33	143.79	21.03 64.80	140.03		143.24	22.93 64.04	140.73
CUD	123.97	44.20	120.11	107.42	04.00	103.38	COD	107.90	04.04	100.33

С7'В	175.13	-5.29	174.61	176.87	-5.35	174.56	C7'D	176.87	-5.31	174.52
regression										
curve	$\delta_{calc} = (\sigma$	_{calc} - 173.0	9) / -1.0261			$\delta_{\text{calc}} = (\sigma_{\text{calc}})$	$l_{lc} - 172.19$	9)/-1.0171		
RMSD		1.61					1.65			

LIN:PHBA:H2O

LIN:BA

13C calculated shielding constants (ppm)

13C experimental chemical shifts (ppm)

13C experimental chemical shifts (ppm)

LIN:3,4-DHBA:H2O

13C calculated shielding constants (ppm)

13C calculated shielding constants (ppm) 13C experimental chemical shifts (ppm)

LIN:2,6-DHBA

13C experimental chemical shifts (ppm)

LIN:GA:H2O

Figure S12. Experimental ¹³C chemical shifts *vs.* calculated shielding constants for the cocrystals of LIN.

Table S5. D...A and D-H...A distances (in Å), as well as D-H...A angle values (in °) oberved in the analyzed crystal structures of LIN.

Crystal structure	HB interaction	DA	D-HA	D-HA
		distance	distance	angle
LIN II	NHO=C _{ring}	2.995	2.214	176.23
LIN III	$NHO=C_{ring}(1)$	2.970	2.068	167.46
—	$NHO=C_{ring}(2)$	2.972	2.040	149.12
LIN:BA	NHO=C _{carboxylic}	2.834	2.039	153.27
	$OH_{carboxylic}O=C_{amide}$	2.618	1.808	168.74
LIN:PHBA:H ₂ O	NHO=C _{carboxylic}	2.809	2.021	148.36
	$OH_{carboxylic} \dots O = C_{amide}$	2.601	1.794	160.70
	OH _{phenol} OH _{water}	2.683	1.981	140.52
	OH _{water} O _{morph}	2.825	2.120	137.99
	$OH_{water}N_{morph}$	2.971	2.122	165.81
LIN:2,6-DHBA	NHO=C _{ring}	2.922	2.064	175.07
	OH _{carboxylic} O=C _{amide}	2.564	1.745	175.41
	OH _{phenol} OH _{carboxylic}	2.608	1.902	143.55
	OH _{phenol} O=C _{carboxylic}	2.567	1.877	141.19
LIN:3,4-	NHO= $C_{amide}(1)$	3.092	2.279	157.74
DHBA:H ₂ O	$NHO=C_{amide}(2)$	3.056	2.235	159.83
	$OH_{phenol}O=C_{amide}(1)$	2.713	1.950	154.56
	$OH_{phenol}O=C_{amide}(2)$	2.689	1.911	158.13
	$OH_{phenol}O_{morph}(1)$	2.684	1.915	155.80
	$OH_{phenol}O_{morph}(2)$	2.739	2.011	147.53
	OH _{carboxylic} O=C _{carboxylic} (1)	2.615	1.830	159.72
	OH _{carboxylic} O=C _{carboxylic} (2)	2.638	1.842	163.33
	OH _{water} O=C _{carboxylic}	2.905	2.075	165.01
	OH _{water} OH _{water}	2.915	2.117	155.95
	OHwaterOHcarboxylic	3.198	2.546	134.37
LIN:GA:H ₂ O	$NHO=C_{ring}(1)$	2.931	2.081	150.69

NH.	$O=C_{ring}(2)$	3.031	2.188	166.47
NH.	$O=C_{ring}(3)$	2.973	2.124	169.38
NH.	$O=C_{ring}$ (4)	3.270	2.182	147.55
OHp	henolO= $C_{amide}(1)$	2.728	2.031	142.61
OH	$henolO=C_{amide}(2)$	2.719	2.032	141.12
OH	$henolO=C_{amide}(3)$	2.793	2.095	142.86
OH	henolO= C_{amide} (4)	2.830	2.134	142.64
OH	henolOmorph (1)	2.765	1.962	166.30
OH	$h_{enol} \dots O_{morph}(2)$	2.759	1.969	161.80
OH	$_{\text{henol}O_{\text{morph}}}(3)$	2.699	1.882	173.97
OH	henolOmorph (4)	2.701	1.904	163.78
OH	$V_{ater}O=C_{amide}(1)$	2.763	1.940	162.73
OH	$V_{ater}O=C_{amide}(2)$	2.753	1.909	172.46
OH	$V_{ater}O=C_{amide}(3)$	2.787	1.956	165.52
OH	$V_{aterO} = C_{amide} (3')$	2.863	2.020	171.86
OH	$V_{aterO} = C_{amide} (4)$	2.823	1.975	174.09
OH	$V_{ater}O=C_{amide}(4')$	2.828	1.860	177.47
OH _c	$arboxylicO=C_{carboxylic}(1)$	2.594	1.777	173.70
OHc	$arboxylicO=C_{carboxylic}(2)$	2.638	1.821	174.71
OHc	$arboxylicO=C_{carboxylic}(3)$	2.598	1.782	173.99
OH _c	$arboxylicO=C_{carboxylic}$ (4)	2.646	1.831	172.81
OH_p	$_{\text{henol}}$ OH $_{\text{water}}(1)$	2.749	2.000	151.62
OH_p	$_{henol}OH_{water}(2)$	2.624	1.836	160.77
OH_p	$_{henol}OH_{water}(3)$	2.617	1.840	157.79
OH_p	$_{henol}$ OH $_{water}$ (4)	2.786	2.013	156.87
OH	$_{vater}OH_{water}(1)$	2.824	1.975	178.37
OHw	vaterOHwater (2)	2.825	1.989	167.70

Table S6. A comparison of the torsion angle values (in °) for all confromations of LIN found in the analysed crystal structures.

	NH _{amide} -C3-C4-O	C6-N _{oxa} -C7-C8	C9-C10-N _{morph} -C13
LIN_II	-63.23	-134.16	-68.77
LIN_III mol A	-61.31	-5.51	-65.32
LIN_III mol B	-61.72	+20.91	+61.20
LIN:BA	-173.07	-20.06	+69.25
LIN:PHBA:H ₂ O	-172.95	-20.16	-65.34
LIN:2,6-DHBA	-65.18	+179.85	+57.05
LIN:3,4-DHBA:H ₂ O mol A	-63.30	+12.28	-67.27
LIN:3,4-DHBA:H ₂ O mol B	-70.79	-2.08	+60.42
LIN:GA:H ₂ O mol A	-66.39	-8.77	-68.66
LIN:GA:H ₂ O mol B	-60.01	+20.71	+63.48
LIN:GA:H ₂ O mol C	-67.43	-13.75	-63.97
LIN:GA:H ₂ O mol D	-60.27	+21.95	+66.97