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Electronic Supporting information for

Elemental analysis: an important purity control but prone to manipulations

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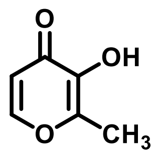
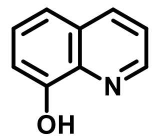
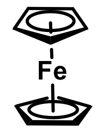
Structure and NMR Spectra of the Investigated Compounds



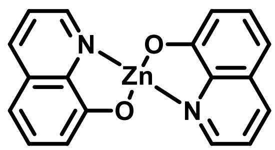
Maltol



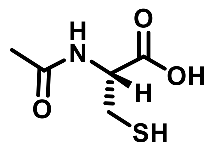
8-Hydroxyquinoline



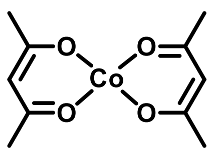
Ferrocene



Bis-(8-Hydroxyquinoline)zinc



N-Acetylcysteine



Cobalt(II) acetylacetonate

Scheme S1. Chemical structures of the investigated compounds.

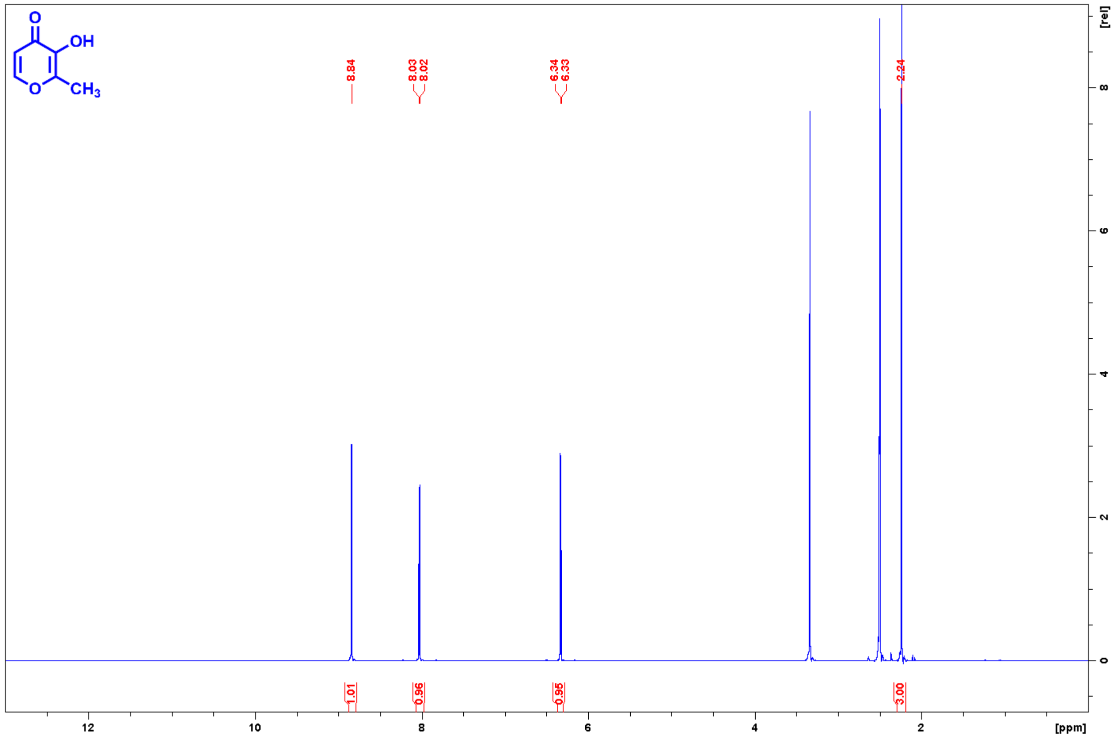


Figure S2. ^{1}H NMR spectrum of 3-hydroxy-2-methyl-pyr-4-one (500.10 MHz, d_6-DMSO, 25 °C).

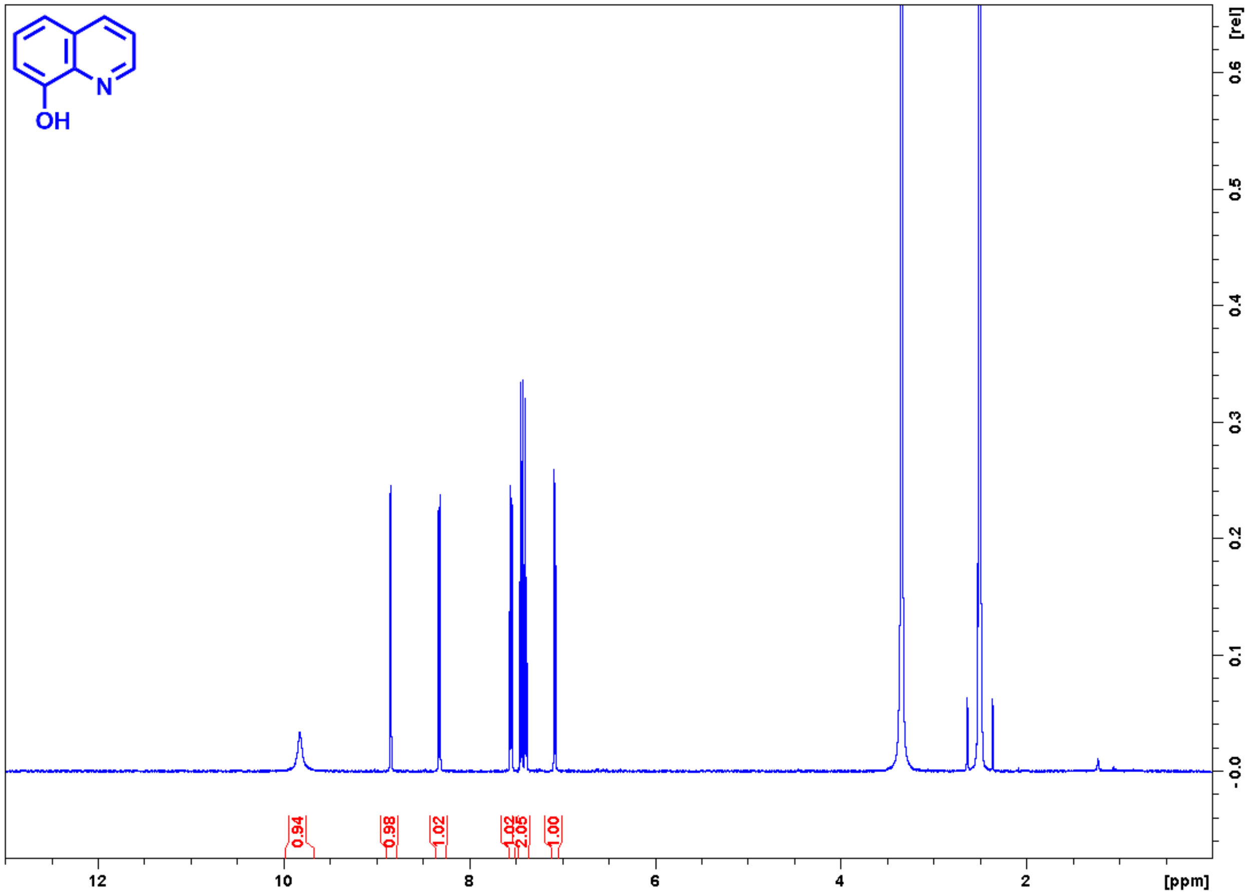


Figure S3. ^{1}H NMR spectrum of 8-hydroxychinoline (500.10 MHz, d_6-DMSO, 25 °C).

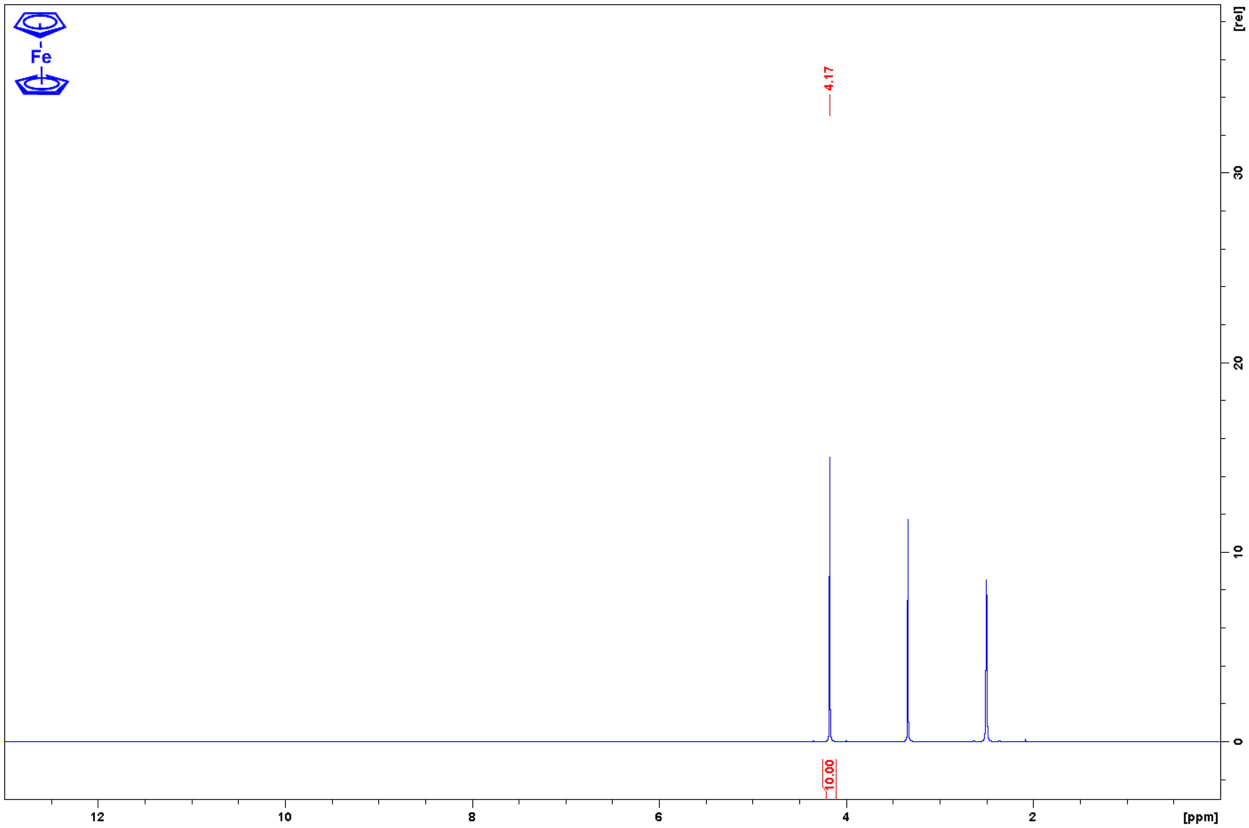


Figure S4. ^{1}H NMR spectrum of ferrocene (500.10 MHz, d_6-DMSO, 25 °C).

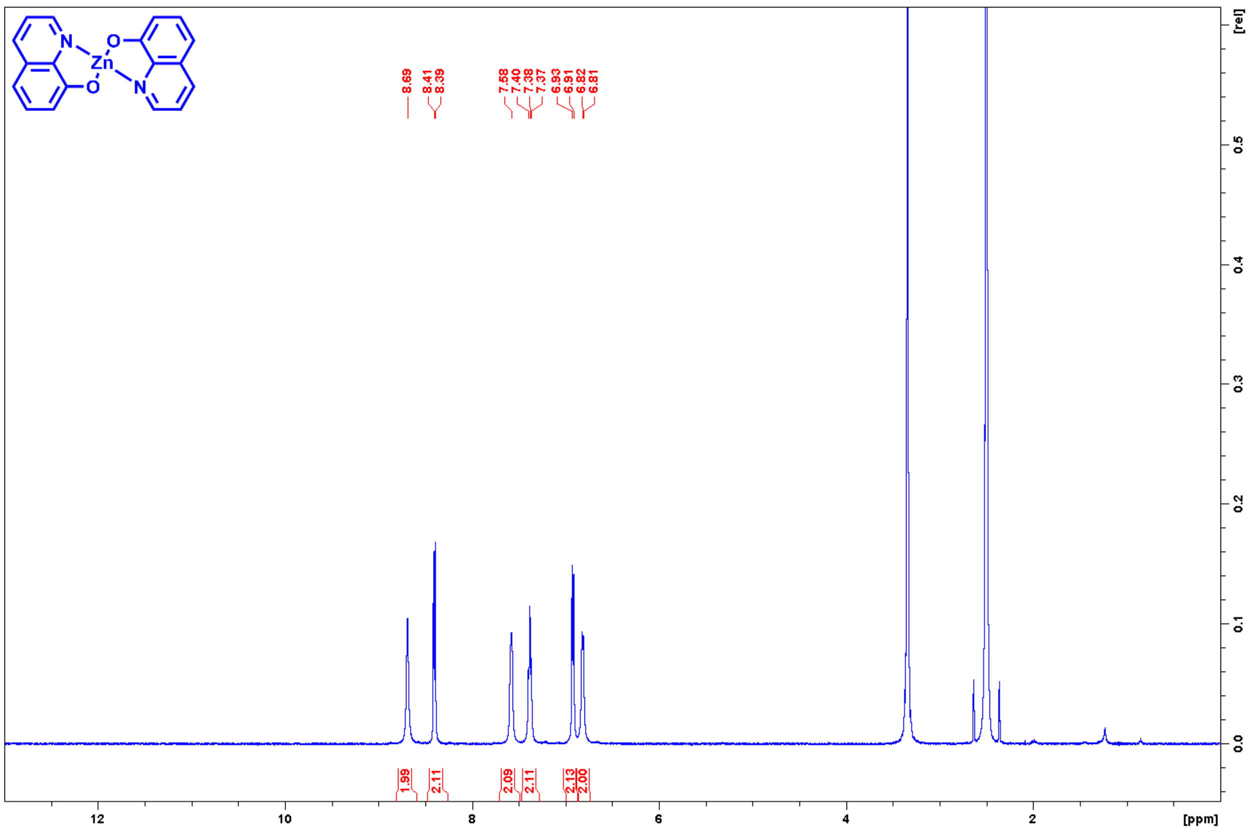


Figure S5. ^{1}H NMR spectrum of bis(8-hydroxyquinolinato)zinc (500.10 MHz, d_6-DMSO, 25 °C).

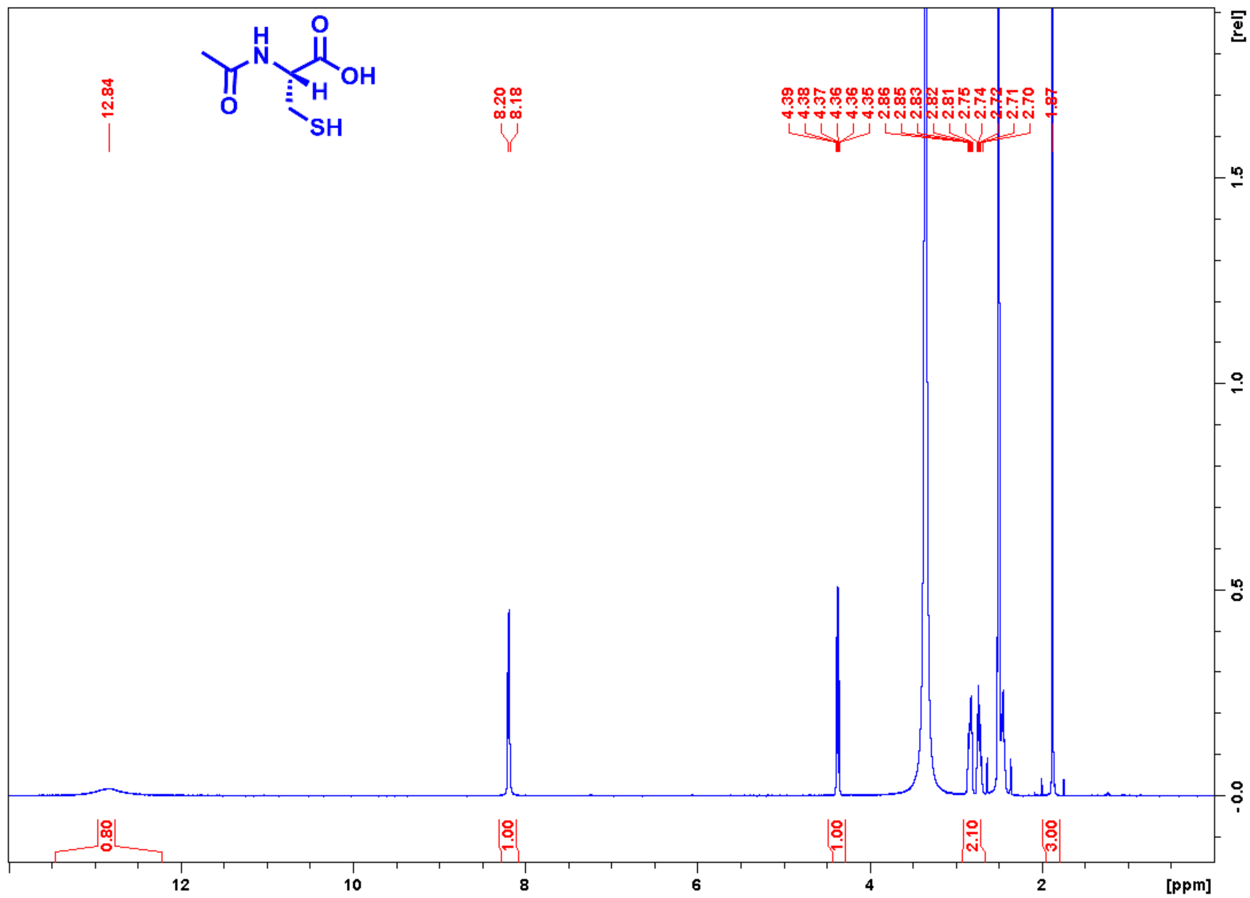


Figure S5. ^{1}H NMR spectrum of *N*-acetyl-L-cysteine (500.10 MHz, d_6-DMSO, 25 °C).

Experimental Part

Materials and Methods

All investigated compounds were bought from Sigma-Aldrich with a purity of >99%: 3-hydroxy-2-methyl-pyr-4-one; 8-hydroxyquinoline, *N*-acetyl-L-cysteine, ferrocene, cobalt(II) acetylacetonate and bis(8-hydroxyquinolinato)zinc. ^{1}H NMR spectra were recorded on a Bruker Avance III^{TM} 500 MHz FT-NMR spectrometer. ^{1}H NMR spectra were measured at 500.10 MHz from solutions in deuterated dimethyl sulfoxide.

Elemental Analyses

Elemental analyses were performed by the Microanalytical Laboratory of the University of Vienna. Samples were weighed on a Sartorius SEC 2 ultra-micro balance with ±0.1 µg resolution. Sample weights from 1.0 and 3.0 mg were used. Calibration was done using NIST-certified standard reference material: sulfanilamide ($C_6H_8N_2O_2S$) and BBOT (2, 5-bis-(5-tert-butyl-2-benzoxazol-2-yl)-thiophenone, $C_{26}H_{26}N_2O_2S$) were used for C/H/N/S, acetanilide (C_8H_9NO) was used for C/H/N-determination and L-cystine ($C_6H_{12}N_2O_4S_2$), acetanilide and benzoic acid ($C_7H_6O_2$) were used for oxygen determination. The limit of quantification (LOQ) is 0.05 w-% for C, H, N and O and 0.02 w-% for S. Using at least two different standard materials ensured to have relevant calibration for various sample types.

CHNS-analysis was performed on an EA3000 CHNSO analyzer manufactured by Eurovector. The instrument uses flash combustion and analyses the product gases by gas chromatography on line. Signals are detected using a Thermal Conductivity Detector (TCD) and recorded by the software "Callidus" supplied by the manufacturer. O-analysis used the HT 1500 high temperature unit coupled to the above instrument. Carbon monoxide is used as analytical species to quantify oxygen.

Data evaluation was done on a well-established laboratory developed software package. Calibration factors are applied as moving averages. Slightly significant changes in the gas flow during an analysis run cause a change in those factors.

CHN analyses were complemented using a 2400 CHNSO instrument from Perkin Elmer. This instrument uses an off-line process for digestion and separation. The GC-separation utilizes zone chromatography and the step height is used for quantification.

The same six compounds have also been measured by the companies: 1) Fa. HEKAtech GmbH, Friedrich-List-Allee 26, D-41844 Wegberg, Germany (www.hekatech.com) using an EA3000 CHNSO instrument; 2) Elementar Analysensysteme GmbH, Elementar-Straße 1, D-63505 Langenselbold, Germany (www.elementar.com) using a UNICUBE/rapid OXY cube instrument and 3) Solvias AG, Römerpark 2, CH-4303 Kaiseraugst, Switzerland (www.solvias.com) using a UNICUBE and EA3000 CHNSO instrument.

3-Hydroxy-2-methyl-pyr-4-one						
$C_6H_6O_3$	**C**		**H**		**N**	
Theoretical composition	**57.14**	**Δ**	**4.80**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	57.08	-0.06	4.63	-0.17	< 0,05	
Elemental analysis 2	57.10	-0.04	4.81	0.01	< 0,05	
Elemental analysis 3	57.14	0.00	4.76	-0.04	< 0,05	
average	57.11	-0.03	4.73	-0.07		
σ	*0.03*		*0.09*			
8-Hydroxyquinoline						
C_9H_7NO	**C**		**H**		**N**	
Theoretical composition	**74.47**	**Δ**	**4.86**	**Δ**	**9.65**	**Δ**
Elemental analysis 1	74.30	-0.17	4.79	-0.07	9.58	-0.07
Elemental analysis 2	74.22	-0.25	4.78	-0.08	9.63	-0.02
Elemental analysis 3	74.33	-0.14	4.80	-0.06	9.63	-0.02
average	74.28	-0.19	4.79	-0.07	9.61	-0.04
σ	*0.06*		*0.01*		*0.03*	
Ferrocene						
$C_{10}H_{10}Fe$	**C**		**H**		**N**	
Theoretical composition	**64.56**	**Δ**	**5.42**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	64.57	0.01	5.36	-0.06	< 0,05	
Elemental analysis 2	64.51	-0.05	5.36	-0.06	< 0,05	
Elemental analysis 3	64.43	-0.13	5.39	-0.03	< 0,05	
average	64.50	-0.06	5.37	-0.05		
σ	*0.07*		*0.02*			
Cobalt(II) acetylacetonate						
$C_{10}H_{14}CoO_4$	**C**		**H**		**N**	
Theoretical composition	**46.70**	**Δ**	**5.49**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	45.95	-0.75	5.65	0.16	< 0,05	
Elemental analysis 2	46.00	-0.70	5.59	0.10	< 0,05	
Elemental analysis 3	45.93	-0.77	5.68	0.19	< 0,05	
average	45.96	-0.74	5.64	0.15		
σ	*0.04*		*0.05*			
Bis-(8-hydroxyquinolinato)zinc						
$C_{18}H_{12}N_2O_2Zn$	**C**		**H**		**N**	
Theoretical composition	**61.12**	**Δ**	**3.42**	**Δ**	**7.92**	**Δ**
Elemental analysis 1	60.82	-0.30	3.38	-0.04	7.70	-0.22
Elemental analysis 2	60.71	-0.41	3.31	-0.11	7.77	-0.15
Elemental analysis 3	60.73	-0.39	3.32	-0.10	7.83	-0.09
average	60.75	-0.37	3.34	-0.08	7.77	-0.15
σ	*0.06*		*0.04*		*0.07*	
***N*-Acetyl-L-cysteine**						
$C_5H_9NO_3S$	**C**		**H**		**N**	
Theoretical composition	**36.80**	**Δ**	**5.56**	**Δ**	**8.59**	**Δ**
Elemental analysis 1	36.92	0.12	5.44	-0.12	8.45	-0.14
Elemental analysis 2	36.99	0.19	5.37	-0.19	8.42	-0.17
Elemental analysis 3	36.96	0.16	5.40	-0.16	8.46	-0.13
average	36.96	0.16	5.40	-0.16	8.44	-0.15
σ	*0.04*		*0.04*		*0.02*	

Table S1: CHN elemental analyses of the six test compounds measured by a 2400 CHNSO instrument at the Microanalytical Laboratory of the University of Vienna.

3-Hydroxy-2-methyl-pyr-4-one								
$C_6H_6O_3$	**C**		**H**		**N**		**S**	
Theoretical composition	**57.14**	**Δ**	**4.80**	**Δ**	**0.00**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	57.23	0.09	4.72	-0.08				
Elemental analysis 2	57.35	0.21	4.79	-0.01				
Elemental analysis 3	57.37	0.23	4.76	-0.04				
average	57.32	0.18	4.76	-0.04				
σ	*0.08*		*0.04*					
8-Hydroxyquinoline								
C_9H_7NO	**C**		**H**		**N**		**S**	
Theoretical composition	**74.47**	**Δ**	**4.86**	**Δ**	**9.65**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	74.44	-0.03	4.83	-0.03	9.64	-0.01		
Elemental analysis 2	74.45	-0.02	4.83	-0.03	9.65	0.00		
Elemental analysis 3	74.49	0.02	4.86	0.00	9.65	0.00		
average	74.46	-0.01	4.84	-0.02	9.65	0.00		
σ	*0.03*		*0.02*		*0.01*			
Ferrocene								
$C_{10}H_{10}Fe$	**C**		**H**		**N**		**S**	
Theoretical composition	**64.56**	**Δ**	**5.42**	**Δ**	**0.00**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	64.71	0.15	5.42	0.00				
Elemental analysis 2	64.76	0.20	5.28	-0.14				
Elemental analysis 3	64.78	0.22	5.43	0.01				
average	64.75	0.19	5.38	-0.04				
σ	*0.04*		*0.08*					
Cobalt(II) acetylacetonate								
$C_{10}H_{14}CoO_4$	**C**		**H**		**N**		**S**	
Theoretical composition	**46.70**	**Δ**	**5.49**	**Δ**	**0.00**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	44.70	-2.00	5.63	0.14				
Elemental analysis 2	44.87	-1.83	5.63	0.14				
Elemental analysis 3	44.81	-1.89	5.63	0.14				
average	44.79	-1.91	5.63	0.14				
σ	*0.09*		*0.00*					
Bis-(8-hydroxyquinolinato)zinc								
$C_{18}H_{12}N_2O_2Zn$	**C**		**H**		**N**		**S**	
Theoretical composition	**61.12**	**Δ**	**3.42**	**Δ**	**7.92**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	60.72	-0.40	3.35	-0.07	7.88	-0.04		
Elemental analysis 2	60.63	-0.49	3.35	-0.07	7.89	-0.03		
Elemental analysis 3	60.51	-0.61	3.32	-0.10	7.90	-0.02		
average	60.62	-0.50	3.34	-0.08	7.89	-0.03		
σ	*0.11*		*0.02*		*0.01*			
***N*-Acetyl-L-cysteine**								
$C_5H_9NO_3S$	**C**		**H**		**N**		**S**	
Theoretical composition	**36.80**	**Δ**	**5.56**	**Δ**	**8.59**	**Δ**	**19.65**	**Δ**
Elemental analysis 1	36.94	0.14	5.57	0.01	8.52	-0.07	19.65	0.00
Elemental analysis 2	36.64	-0.16	5.62	0.06	8.58	-0.01	19.69	0.04
Elemental analysis 3	36.91	0.11	5.59	0.03	8.59	0.00	19.65	0.00
average	36.83	0.03	5.59	0.03	8.56	-0.03	19.66	0.01
σ	*0.17*		*0.03*		*0.04*		*0.02*	

Table S2: CHNS elemental analyses of the six test compounds measured by HEKAtech GmbH on an EA3000 CHNSO instrument.

3-Hydroxy-2-methyl-pyr-4-one								
$C_6H_6O_3$	**C**		**H**		**N**		**S**	
Theoretical composition	**57.14**	**Δ**	**4.80**	**Δ**	**0.00**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	57.10	-0.04	4.78	-0.02	< 0,05		< 0,05	
Elemental analysis 2	57.06	-0.08	4.79	-0.01	< 0,05		< 0,05	
Elemental analysis 3	57.12	-0.02	4.80	0.00	< 0,05		< 0,05	
average	57.09	-0.05	4.79	-0.01				
σ	*0.03*		*0.01*					

8-Hydroxyquinoline								
C_9H_7NO	**C**		**H**		**N**		**S**	
Theoretical composition	**74.47**	**Δ**	**4.86**	**Δ**	**9.65**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	74.38	-0.09	4.87	0.01	9.70	0.05	< 0,05	
Elemental analysis 2	74.34	-0.13	4.88	0.02	9.69	0.04	< 0,05	
Elemental analysis 3	74.40	-0.07	4.88	0.02	9.71	0.06	< 0,05	
average	74.37	-0.10	4.88	0.02	9.70	0.05		
σ	*0.03*		*0.01*		*0.01*			

Ferrocene								
$C_{10}H_{10}Fe$	**C**		**H**		**N**		**S**	
Theoretical composition	**64.56**	**Δ**	**5.42**	**Δ**	**0.00**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	64.46	-0.10	5.44	0.02	< 0,05		< 0,05	
Elemental analysis 2	64.55	-0.01	5.46	0.04	< 0,05		< 0,05	
Elemental analysis 3	64.51	-0.05	5.44	0.02	< 0,05		< 0,05	
average	64.51	-0.05	5.45	0.03				
σ	*0.05*		*0.01*					

Cobalt(II) acetylacetonate								
$C_{10}H_{14}CoO_4$	**C**		**H**		**N**		**S**	
Theoretical composition	**46.70**	**Δ**	**5.49**	**Δ**	**0.00**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	45.09	-1.61	5.74	0.25	< 0,05		< 0,05	
Elemental analysis 2	45.06	-1.64	5.67	0.18	< 0,05		< 0,05	
Elemental analysis 3	45.19	-1.51	5.75	0.26	< 0,05		< 0,05	
average	45.11	-1.59	5.72	0.23				
σ	*0.07*		*0.04*					

Bis-(8-hydroxyquinolinato)zinc								
$C_{18}H_{12}N_2O_2Zn$	**C**		**H**		**N**		**S**	
Theoretical composition	**61.12**	**Δ**	**3.42**	**Δ**	**7.92**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	60.91	-0.21	3.43	0.01	7.93	0.01	< 0,05	
Elemental analysis 2	60.84	-0.28	3.44	0.02	7.93	0.01	< 0,05	
Elemental analysis 3	60.79	-0.33	3.43	0.01	7.94	0.02	< 0,05	
average	60.85	-0.27	3.43	0.01	7.93	0.01		
σ	*0.06*		*0.01*		*0.01*			

***N*-Acetyl-L-cysteine**								
$C_5H_9NO_3S$	**C**		**H**		**N**		**S**	
Theoretical composition	**36.80**	**Δ**	**5.56**	**Δ**	**8.59**	**Δ**	**19.65**	**Δ**
Elemental analysis 1	36.96	0.16	5.60	0.04	8.65	0.06	19.73	0.08
Elemental analysis 2	36.89	0.09	5.61	0.05	8.62	0.03	19.65	0.00
Elemental analysis 3	36.89	0.09	5.62	0.06	8.62	0.03	19.80	0.15
average	36.91	0.11	5.61	0.05	8.63	0.04	19.73	0.08
σ	*0.04*		*0.01*		*0.02*		*0.08*	

Table S3: CHNS elemental analyses of the six test compounds measured by Elementar GmbH on a UNICUBE instrument.

3-Hydroxy-2-methyl-pyr-4-one

$C_6H_6O_3$	C		H		N		S	
Theoretical composition	**57.14**	**Δ**	**4.80**	**Δ**	**0.00**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	57.089	-0.05	4.807	0.01				
Elemental analysis 2	57.101	-0.04	4.836	0.04				
Elemental analysis 3	57.125	-0.02	4.820	0.02				
average	57.11	-0.04	4.82	0.02				
σ	*0.02*		*0.01*					

8-Hydroxyquinoline

C_9H_7NO	C		H		N		S	
Theoretical composition	**74.47**	**Δ**	**4.86**	**Δ**	**9.65**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	74.715	0.25	4.871	0.01	9.606	-0.04		
Elemental analysis 2	74.585	0.11	4.775	-0.09	9.451	-0.20		
Elemental analysis 3	74.508	0.04	4.782	-0.08	9.520	-0.13		
average	74.60	0.13	4.81	-0.05	9.53	-0.12		
σ	*0.10*		*0.05*		*0.08*			

Ferrocene

$C_{10}H_{10}Fe$	C		H		N		S	
Theoretical composition	**64.56**	**Δ**	**5.42**	**Δ**	**0.00**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	64.470	-0.09	5.635	0.22				
Elemental analysis 2	64.692	0.13	5.598	0.18				
Elemental analysis 3	64.460	-0.10	5.585	0.17				
average	64.54	-0.02	5.61	0.19				
σ	*0.13*		*0.03*					

Cobalt(II) acetylacetonate

$C_{10}H_{14}CoO_4$	C		H		N		S	
Theoretical composition	**46.70**	**Δ**	**5.49**	**Δ**	**0.00**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	45.330	-1.37	5.865	0.38				
Elemental analysis 2	45.164	-1.54	5.769	0.28				
Elemental analysis 3	45.205	-1.50	5.798	0.31				
average	45.23	-1.47	5.81	0.32				
σ	*0.09*		*0.05*					

Bis-(8-hydroxyquinolinato)zinc

$C_{18}H_{12}N_2O_2Zn$	C		H		N		S	
Theoretical composition	**61.12**	**Δ**	**3.42**	**Δ**	**7.92**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	60.997	-0.12	3.621	0.20	7.765	-0.16		
Elemental analysis 2	60.769	-0.35	3.584	0.16	7.747	-0.17		
Elemental analysis 3	60.915	-0.20	3.649	0.23	7.768	-0.15		
average	60.89	-0.23	3.62	0.20	7.76	-0.16		
σ	*0.12*		*0.03*		*0.01*			

***N*-Acetyl-L-cysteine**

$C_5H_9NO_3S$	C		H		N		S	
Theoretical composition	**36.80**	**Δ**	**5.56**	**Δ**	**8.59**	**Δ**	**19.65**	**Δ**
Elemental analysis 1	36.743	-0.06	5.616	0.06	8.567	-0.02	20.152	0.50
Elemental analysis 2	36.732	-0.07	5.602	0.04	8.561	-0.03	20.009	0.36
Elemental analysis 3	36.717	-0.08	5.607	0.05	8.546	-0.04	19.998	0.35
average	36.73	-0.07	5.61	0.05	8.56	-0.03	20.05	0.40
σ	*0.01*		*0.01*		*0.01*		*0.09*	

Table S4: CHNS elemental analyses of the six test compounds measured by Solvias AG on a UNICUBE instrument.

3-Hydroxy-2-methyl-pyr-4-one

$C_6H_6O_3$	C		H		N		S	
Theoretical composition	**57.14**	**Δ**	**4.80**	**Δ**	**0.00**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	57.073	-0.07	4.905	0.11				
Elemental analysis 2	57.231	0.09	4.853	0.05				
Elemental analysis 3	57.225	0.09	4.870	0.07				
average	57.18	0.04	4.88	0.08				
σ	*0.09*		*0.03*					

8-Hydroxyquinoline

C_9H_7NO	C		H		N		S	
Theoretical composition	**74.47**	**Δ**	**4.86**	**Δ**	**9.65**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	74.163	-0.31	4.944	0.08	9.815	0.16		
Elemental analysis 2	74.275	-0.19	4.866	0.01	9.761	0.11		
Elemental analysis 3	74.385	-0.08	4.856	0.00	9.760	0.11		
average	74.27	-0.20	4.89	0.03	9.78	0.13		
σ	*0.11*		*0.05*		*0.03*			

Ferrocene

$C_{10}H_{10}Fe$	C		H		N		S	
Theoretical composition	**64.56**	**Δ**	**5.42**	**Δ**	**0.00**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	64.739	0.18	5.455	0.04				
Elemental analysis 2	64.575	0.02	5.532	0.11				
Elemental analysis 3	64.666	0.11	5.437	0.02				
average	64.66	0.10	5.47	0.05				
σ	*0.08*		*0.05*					

Cobalt(II) acetylacetonate

$C_{10}H_{14}CoO_4$	C		H		N		S	
Theoretical composition	**46.70**	**Δ**	**5.49**	**Δ**	**0.00**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	44.718	-1.98	5.894	0.40				
Elemental analysis 2	45.017	-1.68	5.831	0.34				
Elemental analysis 3	45.265	-1.44	5.784	0.29				
average	45.00	-1.70	5.84	0.35				
σ	*0.27*		*0.06*					

Bis-(8-hydroxyquinolinato)zinc

$C_{18}H_{12}N_2O_2Zn$	C		H		N		S	
Theoretical composition	**61.12**	**Δ**	**3.42**	**Δ**	**7.92**	**Δ**	**0.00**	**Δ**
Elemental analysis 1	60.829	-0.29	3.280	-0.14	7.932	0.01		
Elemental analysis 2	60.787	-0.33	3.459	0.04	7.977	0.06		
Elemental analysis 3	60.841	-0.28	3.451	0.03	7.943	0.02		
average	60.82	-0.30	3.40	-0.02	7.95	0.03		
σ	*0.03*		*0.10*		*0.02*			

***N*-Acetyl-L-cysteine**

$C_5H_9NO_3S$	C		H		N		S	
Theoretical composition	**36.80**	**Δ**	**5.56**	**Δ**	**8.59**	**Δ**	**19.65**	**Δ**
Elemental analysis 1	36.877	0.08	5.647	0.09	8.637	0.05	20.349	0.70
Elemental analysis 2	36.976	0.18	5.599	0.04	8.619	0.03	20.040	0.39
Elemental analysis 3	36.994	0.19	5.574	0.01	8.631	0.04	20.371	0.72
average	36.95	0.15	5.61	0.05	8.63	0.04	20.25	0.60
σ	*0.06*		*0.04*		*0.01*		*0.19*	

Table S5: CHNS elemental analyses of the six test compounds measured by Solvias AG on an EA3000 CHNSO instrument.

3-Hydroxy-2-methyl-pyr-4-one ($C_6H_6O_3$)	**O**	
Theoretical composition	**38.06**	**Δ**
Elemental analysis 1	37.98	-0.08
Elemental analysis 2	38.03	-0.03
Elemental analysis 3	38.04	-0.02
average	38.02	-0.04
σ	*0.03*	

8-Hydroxyquinoline (C_9H_7NO)	**O**	
Theoretical composition	**11.02**	**Δ**
Elemental analysis 1	11.07	0.05
Elemental analysis 2	11.06	0.04
Elemental analysis 3	11.01	-0.01
average	11.05	0.03
σ	*0.03*	

Cobalt(II) acetylacetonate ($C_{10}H_{14}CoO_4$)	**O**		**$C_{10}H_{14}CoO_4$*0.25H_2O**	
Theoretical composition	**24.89**	**Δ**	**25.99**	**Δ**
Elemental analysis 1	25.97	1.08	25.97	-0.02
Elemental analysis 2	26.07	1.18	26.07	0.08
Elemental analysis 3	25.84	0.95	25.84	-0.15
average	25.96	1.07	25.96	-0.03
σ	*0.12*		*0.12*	

Bis-(8-hydroxyquinolinato)zinc ($C_{18}H_{12}N_2O_2Zn$)	**O**	
Theoretical composition	**9.05**	**Δ**
Elemental analysis 1	9.15	0.10
Elemental analysis 2	8.76	-0.29
Elemental analysis 3	8.69	-0.36
average	8.87	-0.18
σ	*0.25*	

***N*-Acetyl-L-cysteine ($C_5H_9NO_3S$)**	**O**	
Theoretical composition	**29.41**	**Δ**
Elemental analysis 1	29.35	-0.06
Elemental analysis 2	29.33	-0.08
Elemental analysis 3	29.37	-0.04
average	29.35	-0.06
σ	*0.02*	

Table S6: Measured oxygen values of the five oxygen containing compounds using an EA3000 CHNSO instrument at the Microanalytical Laboratory of the University of Vienna.

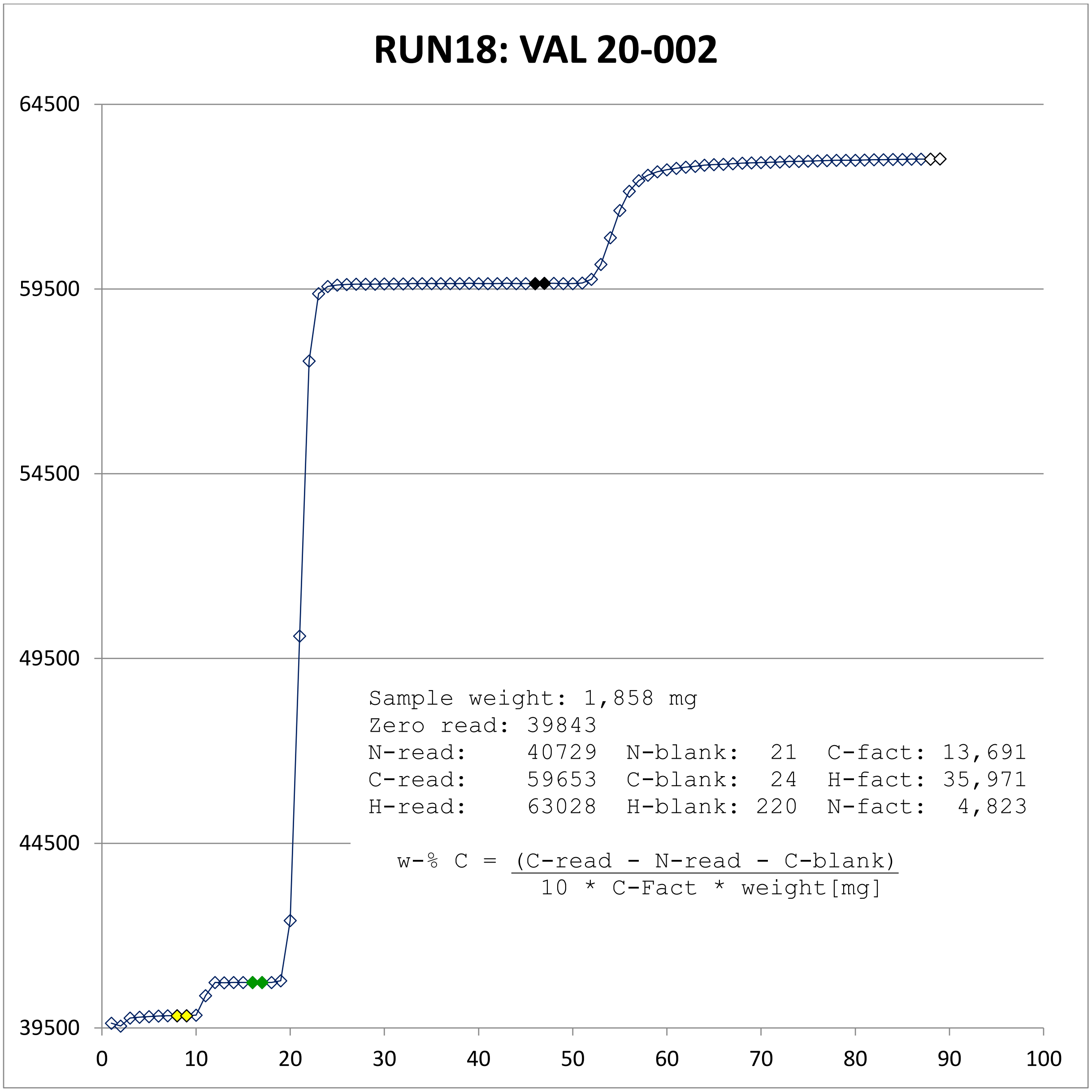


Figure S6. Exemplary elemental analysis chromatogram with the respective peak areas and scale factors measured on a 2400 CHNSO Perkin Elmer instrument. The yellow diamonds indicate the blank, the green N, black C and white H values.