

## Supplementary Materials

**Table S1.** Assignment of  $^1\text{H}$  and  $^{13}\text{C}$  NMR signals of the ionic liquid B. Signal multiplicity is reported in brackets.<sup>a</sup>

Atom	$^1\text{H}$ $\delta$ (ppm)	$^{13}\text{C}$ $\delta$ (ppm)
2	2.97 (s)	47.4
3	3.23 (m)	60.8
4	1.65 (m)	23.5
5	1.35 (m)	19.1
6	0.96 (t)	12.9
8	-	

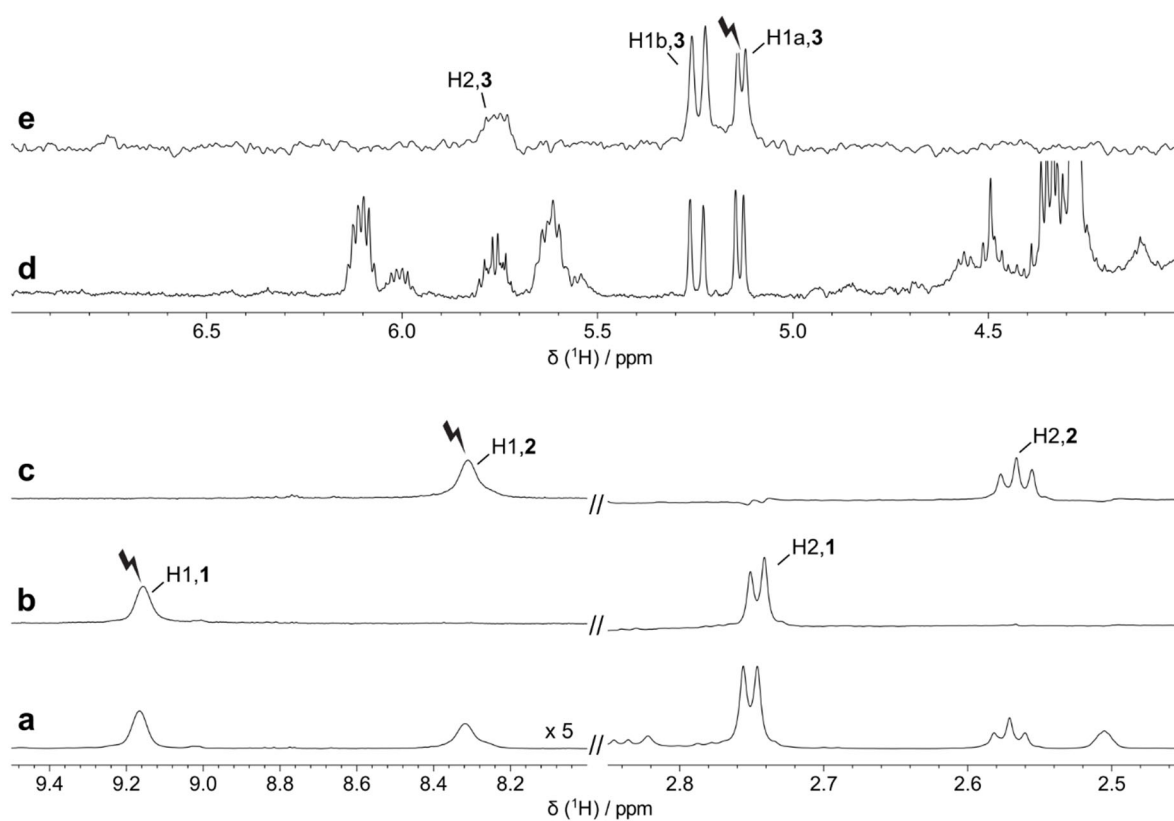
<sup>a</sup>Abbreviations: s = singlet, t = triplet, m = multiplet.

**Table S2.** Assignment of  $^1\text{H}$  and  $^{13}\text{C}$  NMR signals of the degradation compounds 1, 2 and 3. Signal multiplicity is reported in brackets.<sup>a</sup>

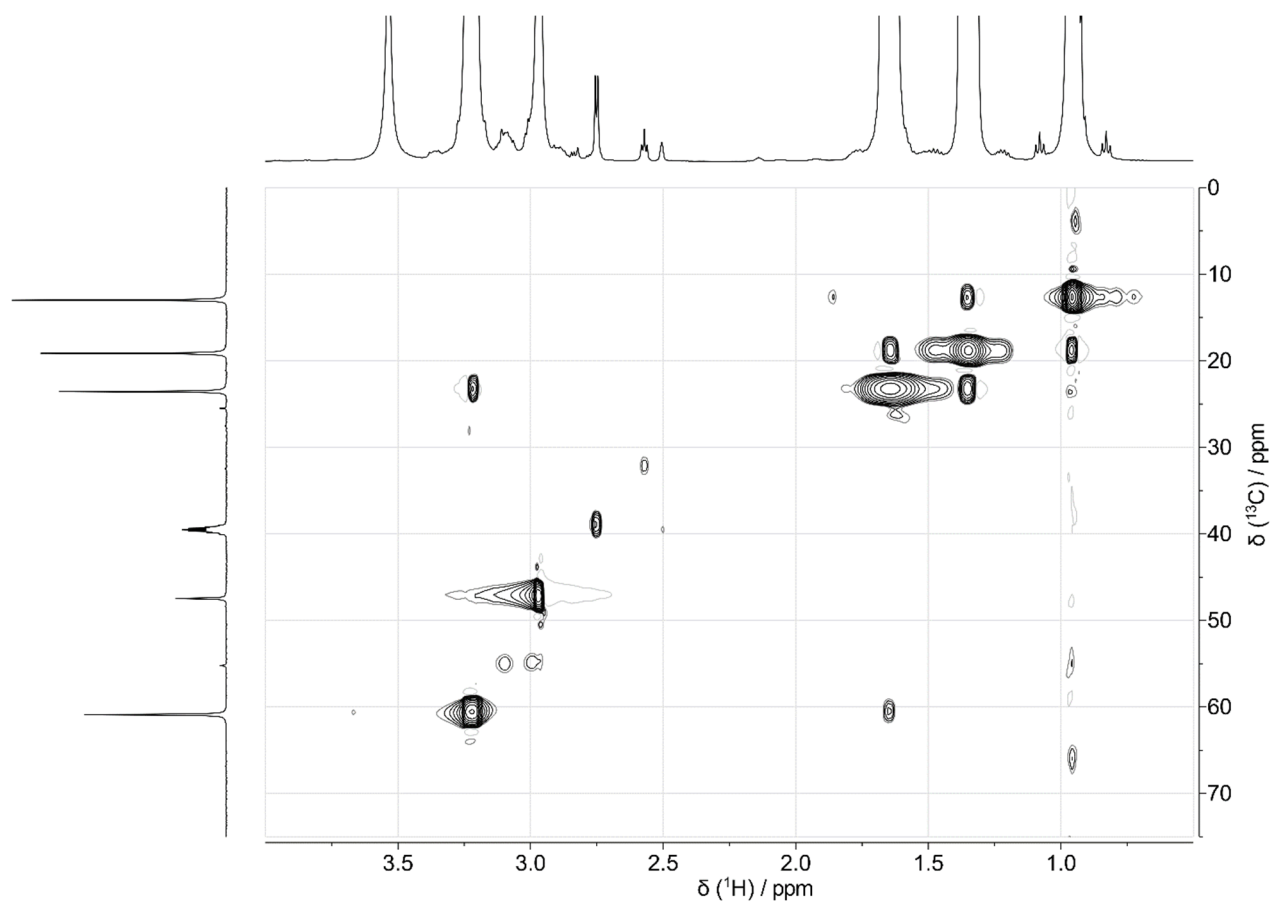
Compound 1			Compound 2			Compound 3		
Atom	$^1\text{H}$ $\delta$ (ppm)	$^{13}\text{C}$ $\delta$ (ppm)	Atom	$^1\text{H}$ $\delta$ (ppm)	$^{13}\text{C}$ $\delta$ (ppm)	Atom	$^1\text{H}$ $\delta$ (ppm)	$^{13}\text{C}$ $\delta$ (ppm)
1	9.16 (br)	-	1	8.31 (br)	-	1a	5.24 (d)	
2	2.75 (d)	39.2	2	2.57 (t)	32.5	1b	5.13 (d)	118.2
3	n.d*	n.d*	3	n.d*	n.d*	2	5.76 (m)	n.d*
4	n.d*	n.d*	4	n.d*	n.d*	3	n.d*	n.d*
5	n.d*	n.d*	5	n.d*	n.d*	4	n.d*	n.d*
6	n.d*	n.d*	6	n.d*	n.d*			

<sup>a</sup>Abbreviations: br = broad, d = doublet, t = triplet, m = multiplet.

\*Non-detectable, probably due to overlap with the main ionic liquid signals.



**Figure S1.** Comparison of  $^1\text{H}$  HRMAS spectrum of 4B168 (**a**, **d**) with 1D selective  $^1\text{H}$  TOCSY obtained by irradiating H1,1 (9.16 ppm, **b**), H1,2 (8.31 ppm, **c**) and H1a,3 (5.13 ppm, **e**). The lightning symbols highlight the irradiated resonances.



**Figure S2.**  $^1\text{H}$ - $^{13}\text{C}$  HSQC spectrum of **4B168**.