Electronic Supplementary Material (ESI) for Nanoscale.

Sol-Gel Chemistry in Molten Brønsted Acids towards "Activated" Carbons and Beyond

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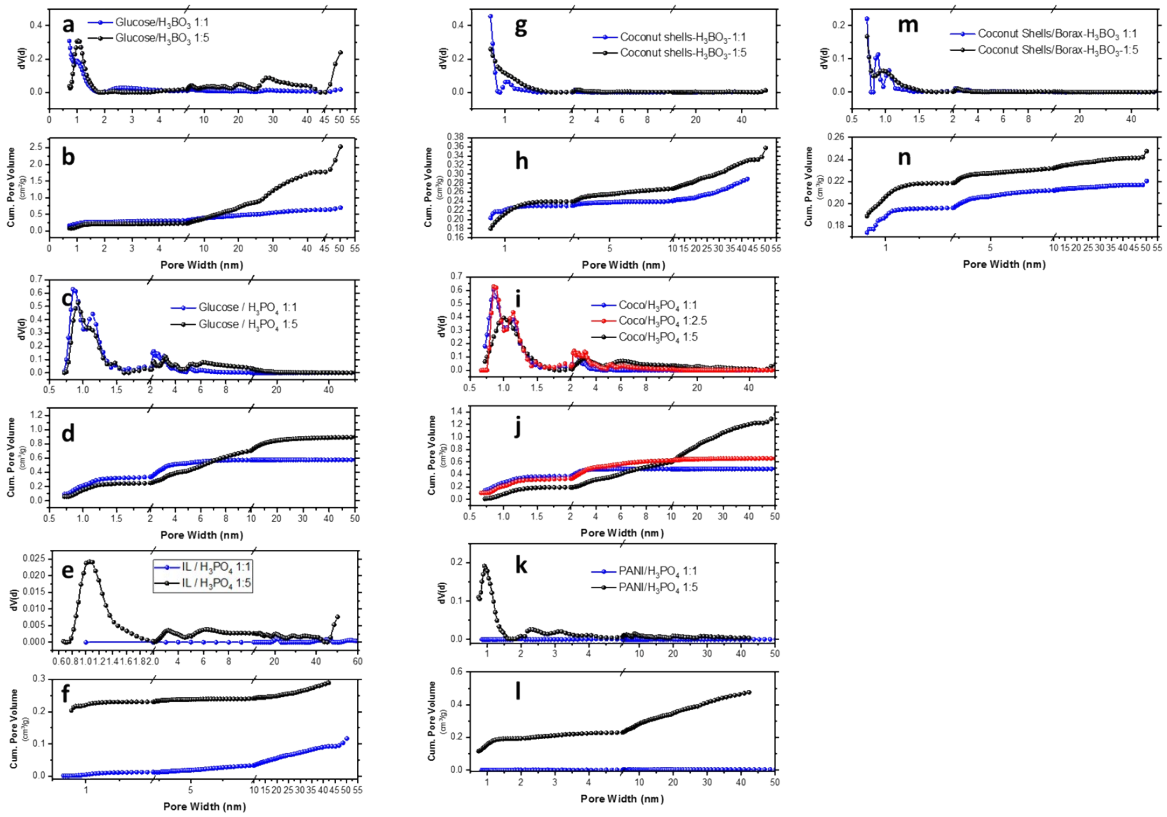

Figure S1: N_2 sorption derived pore size distributions and cumulative pore volumes of molecular precursor derived carbons: a,b) Glu-H_3BO_3; c,d) Glu-H_3PO_4; e,f) IL-H_3PO_4. Pore size distributions and cumulative pore volumes of polymeric precursor derived carbons: g,h) Coco-H_3BO_3; i,j) Coco-H_3BO_3; k,l) PANI-H_3PO_4; m,n)) Coco-borax_H_3BO_3.

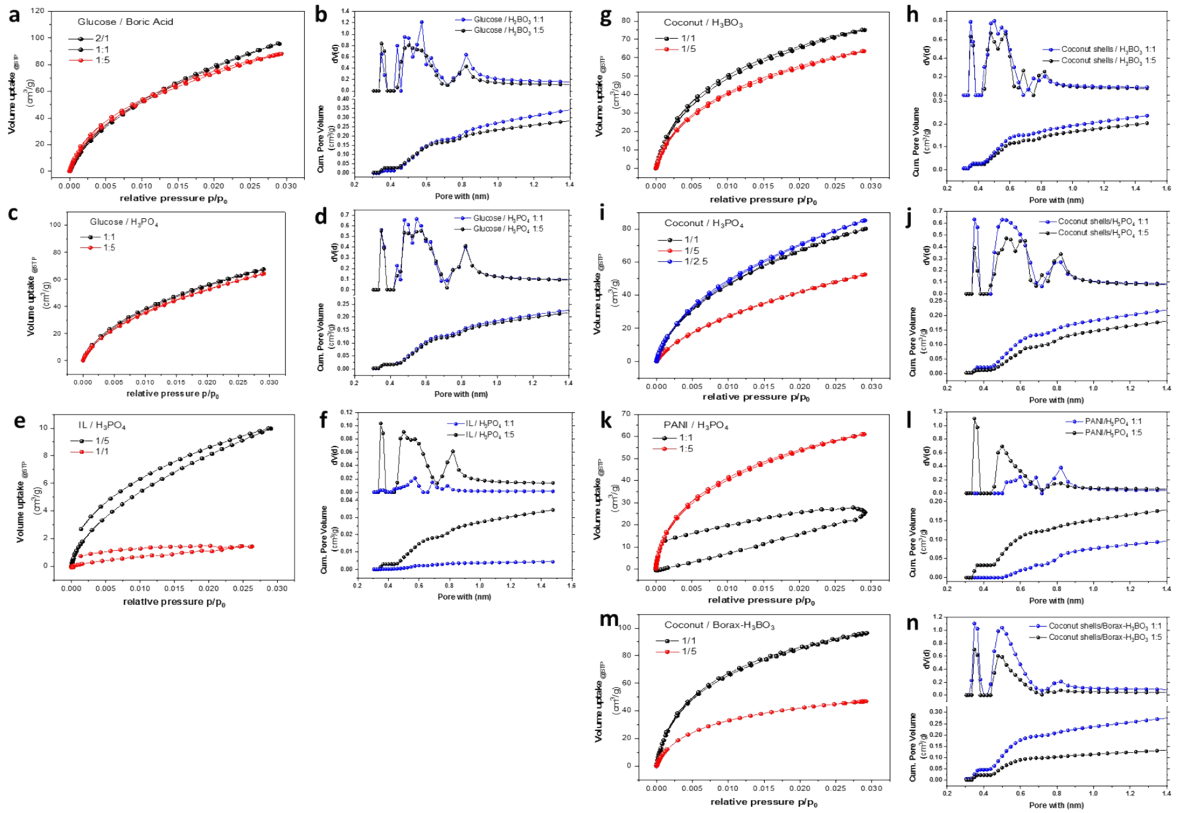

Figure S2: CO_2 sorption derived pore size distributions and cumulative pore volumes of molecular precursor derived carbons: a,b) Glu-H_3BO_3; c,d) Glu-H_3PO_4; e,f) IL-H_3PO_4. Pore size distributions and cumulative pore volumes of polymeric precursor derived carbons: g,h) Coco-H_3BO_3; i,j) Coco-H_3BO_3; k,l) PANI-H_3PO_4; m,n)) Coco-borax_H_3BO_3.

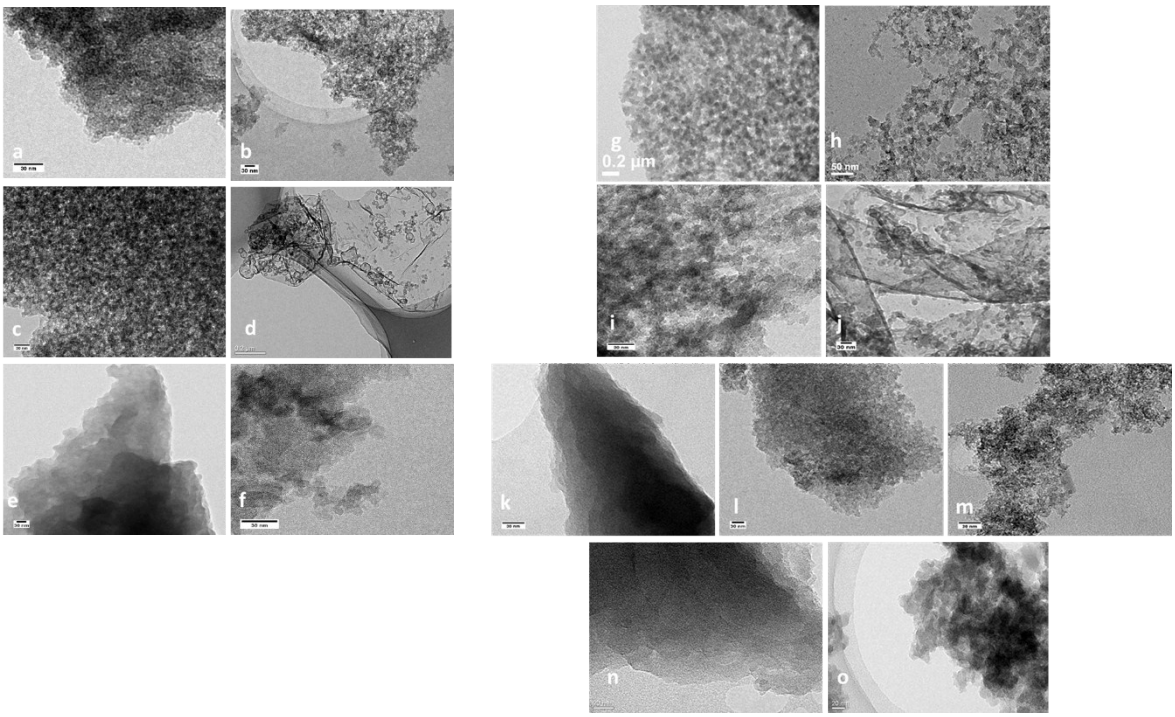

Figure S3: TEM images of a) Glu-H_3PO_4-1:1, b) Glu-H_3PO_4-1:5, c) Glu-H_3BO_3_1:1, d) Glu-H_3BO_3_1:5, e) IL-H_3PO_4-1:1, f) IL-H_3PO_4-1:5, g) Coco-H_3BO_3-1:1, h) Coco-H_3BO_3-1:5, i) Coco-borax_H_3BO_3-1:1, j) Coco-borax_H_3BO_3-1:5, k) Coco-H_3PO_4-1:1, l) Coco-H_3PO_4-1:2.5, m) Coco-H_3PO_4-1:5, n) PANI-H_3PO_4 1:1, o) PANI-H_3PO_4 1:5,

Table S2: Elemental analysis, N/C ratio, and total yield of all carbon products.

Sample	C	H	N	S	N/C	Total yield
Coconut	47.88	6.10	<0.1	-	-	-
Glucose (theo.)	40.00	0.06	-	-	-	-
EMIM DCA (theo.)	54.00	0.06	0.40	-	0.01	-
PANI	72.68	5.26	14.62	0.76	0.20	-
Glu-H3PO4 1-1	62.18	2.14	<0.1	-	-	32.4
Glu-H3PO4 1-5	63.80	1.64	<0.1	-	-	27.3
Glu-H3BO3 1-1	89.72	2,15	<0.1	-	-	24.1
Glu-H3BO3 1-5	89.24	1.88	<0.1	-	-	27.4
IL-H3PO4 1-1	24.23	2.85	8.49	-	0.35	-
IL-H3PO4 1-5	24.89	1.46	3.97	-	0.16	-
Coco-H3PO4 1-1	67.20	2.15	0.17	-	-	28.5
Coco-H3PO4 1-2.5	72.45	1.41	0.22	-	-	-
Coco-H3PO4 1-5	62.53	1.81	0.21	-	-	38.1
Coco_H3BO3 1-1	90.22	1.99	0.24	-	-	-
Coco-H3BO3 1-5	87.13	1.99	0.26	-	-	32
PANI-H3PO4 1-1	42.99	1.85	6.22	-	0.14	57
PANI-H3PO4 1-5	48.22	1.66	5.20	-	0.11	76
Coco-borax_H3BO3 1-1	84.49	2.22	0.22	-	-	19.8
Coco-borax_H3BO3 1-5	86.53	2.25	0.23	-	-	27.5

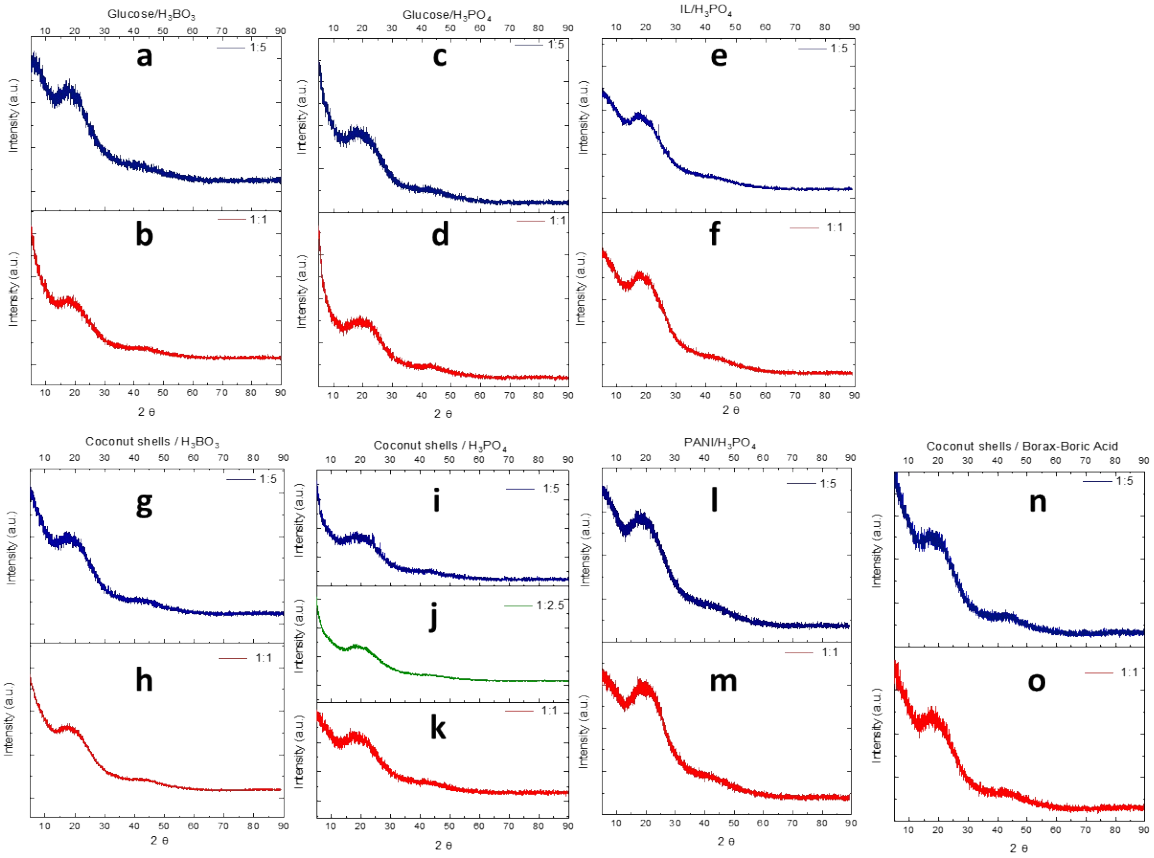

Figure S4: Powder XRD patterns of carbons synthesized from molecular precursors: a,b) Glu-H_3BO_3; c,d) Glu-H_3PO_4; e,f) IL-H_3PO_4. The patterns of polymeric precursor derived carbons are shown in: g,h) Coco-H_3BO_3; i,j,k) Coco-H_3PO4; l,m) PANI-H_3PO_4; n,o) Coco-borax_H_3BO_3.