

**Supplementary material to:** Kekana P, et al. [S Afr J Sci. 2016;112\(11/12\), Art. #2015-0280, 7 pages.](https://doi.org/10.17159/sajs.2016/20150280)

**How to cite:** Kekana P, Sithole B, Ramjugernath D. Stirred cell ultrafiltration of lignin from black liquor generated from South African kraft mills [supplementary material]. S Afr J Sci. 2016;112(11/12), Art. #2015-0280, 1 page. <http://dx.doi.org/10.17159/sajs.2016/20150280/suppl>

**Supplementary table 1:** Total solids mass balance (at a stirring rate of 200 rpm and a feed concentration of 9%)

Experimental conditions (membrane size, pressure)	Solids concentration (g/L)		Sample volume after run (mL)		Solids (%in either retentate or permeate)		Solids (% of raw sample)		Analysis error (%)
	Permeate	Retentate	Permeate	Retentate	Permeate	Retentate	Permeate	Retentate	
10 kDa, 150 kPa	73.80	122.31	108	92	7.07	11.55	44.82	63.28	-8.10
10 kDa, 250 kPa	71.33	125.20	106	94	6.84	11.82	42.52	66.18	-8.70
10 kDa, 350 kPa	70.03	141.95	131	69	6.72	13.32	51.59	55.08	-6.67
Raw sample	88.91		200		17.782				

**Supplementary table 2:** Lignin mass balance (at a stirring rate of 200 rpm and a feed concentration of 9%)

Experimental conditions (membrane size, pressure)	Lignin concentration (g/L)		Sample volume after run (mL)		Calculated mass of lignin in sample after run (g)		Lignin (% of raw sample)		Analysis error (%)
	Permeate	Retentate	Permeate	Retentate	Permeate	Retentate	Permeate	Retentate	
10 kDa, 150 kPa	15.87	61.60	108	92	1.713457	5.666976	23.54	77.86	-1.41
10 kDa, 250 kPa	13.19	62.50	106	94	1.39766	5.875382	19.20	80.73	0.07
10 kDa, 350 kPa	13.54	81.17	131	69	1.77316	5.60057	24.36	76.95	-1.31
Raw sample	36.39		200		7.27804878				