

*Communication*

# A novel Tri-Layer Cellulose-Based Membrane for the Capture and Analysis of Mainstream Smoke of Tobacco

**Xuyan Song<sup>1</sup>, Min Wei <sup>1,\*</sup>, Yunlu He <sup>1</sup>, Xi Pan <sup>1</sup>, Xinjiao Cui <sup>2</sup>, Xiaodi Du <sup>2,\*</sup> and Junsheng Li <sup>2,\*</sup>**

<sup>1</sup> Technology Centre of Hubei China Tobacco Industry Co., LTD., Wuhan 430051, China, songxy@hbto-bacco.cn (Xuyan Song); weimin@hbto-bacco.cn (Min Wei); 11013210@hbto-bacco.cn (Xi Pan); heyunlu@hbto-bacco.cn (Yunlu He)

<sup>2</sup> School of Chemistry, Chemical Engineering and Life Sciences, Wuhan University of Technology, Wuhan 430070, China, 304805@whut.edu.cn (Xinjiao Cui); duxiaodi@msn.com (Xiaodi Du); li\_j@whut.edu.cn (Junsheng Li)

\* Correspondence: weimin@hbto-bacco.cn (M. W.), duxiaodi@msn.com (X. D.), li\_j@whut.edu.cn (J. L.).

**Table S1.** The weight of detected glycerin and triglyceride triacetate on CF/CAF/CF pad with different interlayer weight and CPF.

Samples	Glycerin detected (mg)								Triglyceride triacetate detected (mg)							
	32 s	64 s	96 s	128 s	160 s	192 s	224 s	256 s	32 s	64 s	96 s	128 s	160 s	192 s	224 s	256 s
CF/CAF <sub>0.5</sub> /CF (500 mg interlayer)	0.02	0.02	0.03	0.04	0.06	0.12	0.13	0.20	0.04	0.55	0.32	0.48	0.62	0.59	1.62	0.62
CF/CAF <sub>0.4</sub> /CF (400 mg interlayer)	0.05	0.09	0.17	0.34	0.62	0.53	0.33	0.22	0.87	0.64	0.90	0.53	1.02	0.85	0.77	0.97
CF/CAF <sub>0.3</sub> /CF (300 mg interlayer)	0.10	0.09	0.20	0.44	0.71	0.69	0.42	0.24	0.71	0.76	0.75	0.50	0.83	0.74	0.94	0.65
CF/CAF <sub>0.2</sub> /CF (200 mg interlayer)	0.12	0.11	0.18	0.48	0.78	0.72	0.45	0.24	0.47	0.61	0.61	0.64	0.68	0.55	0.66	0.56
CF/CAF <sub>0.1</sub> /CF (100 mg interlayer)	0.06	0.09	0.21	0.50	0.57	0.43	0.24	0.17	0.33	0.28	0.50	0.41	0.39	0.39	0.35	0.50
CFP	0.11	0.08	0.16	0.52	0.75	0.48	0.53	0.29	0.03	0.04	0.08	0.18	0.12	0.06	0.08	0.07