

Supplementary information

Table S1: ionophore, membrane composition and selectivity values measured

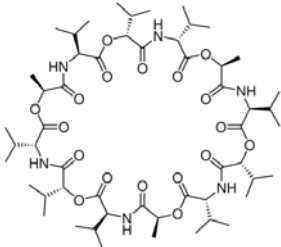
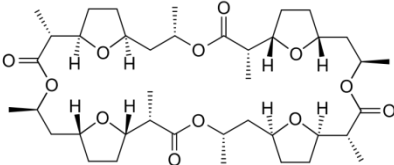
Ionophore	Membrane Composition	$\text{Log } K^{\text{POT}}_{\text{Analyte/Interferent}}$	Method
 $\text{K}^+ 1$ (valinomycin)	$\text{K}^+ 1$ (2% wt) KTpClPB (0.5% wt) DOS (64.7% wt) PVC (32.8% wt)	Li^+ : -4.4 Na^+ : -3.6 NH_4^+ : -1.8 Ca^{2+} : -4.6	Fixed interference method (FIM)
 $\text{NH}_4^+ 1$ (nonactin)	$\text{NH}_4^+ 1$ (1% wt) di-2-Ethyl-hexyl adipate (DOA) (66.8% wt) PVC (32.2% wt)	Na^+ : -2.9 K^+ : -0.9	Fixed interference method (FIM)

Figure S2: Changes on the calibration plots of the K^+ (left) and NH_4^+ (right) yarn sensors over time

Lifetime of potassium and ammonium yarn electrodes over time. (○) 1st day after conditioning; (□) 14 days; (△) 22 days and (◇) 30 days.

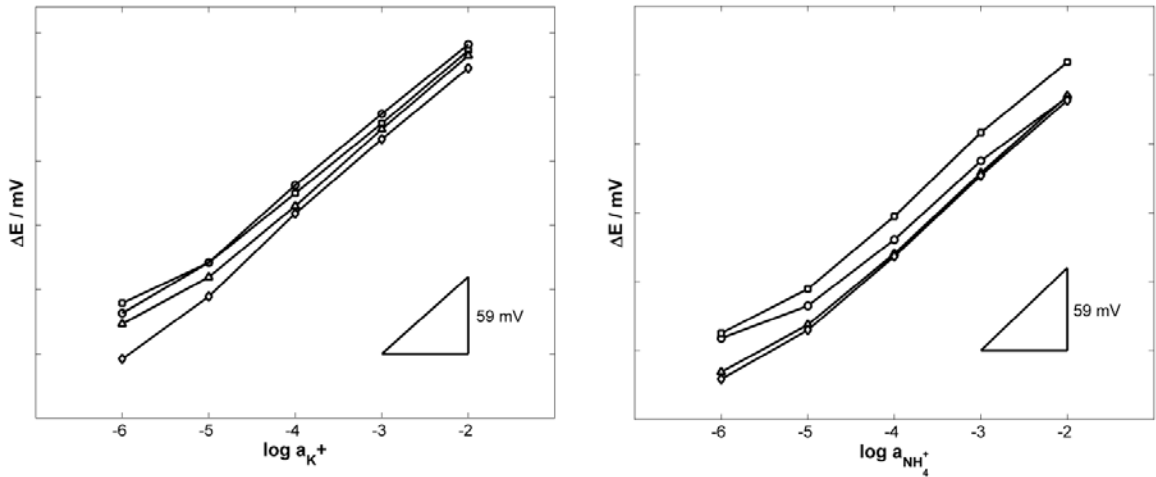


Table S2: parameters of the calibration plots for the different yarn sensors

<i>Electrode</i>	Sensitivity	Intercept
K ⁺	54.9 ± 1.6*	399 ± 5*
NH ₄ ⁺	53.9 ± 0.7*	305.8 ± 2.6*
pH	-55.7 ± 1.2*	457.1 ± 3.2*

*Statistical error was calculated by using the student's t-test of sensitivity and intercept.