

# Insight into the effect of glycerol on dielectric relaxation and transport properties of potassium ion-conducting solid biopolymer electrolytes for application in solid-state EDLC

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Table S1. Ionic conductivity of MC/PC/K<sub>3</sub>PO<sub>4</sub>/glycerol SBEs

Sample	Film thickness $\times 10^{-2}$ (cm)	Bulk resistance ( $\Omega$ )	Ionic conductivity ( $\text{Scm}^{-1}$ )
SC10	2.98	$4.02 \times 10^2$	$2.36 \times 10^{-5}$
SC20	3.19	$3.63 \times 10^2$	$2.81 \times 10^{-5}$
SC30	3.47	$1.08 \times 10^2$	$4.25 \times 10^{-5}$
SC40	4.18	$4.67 \times 10^1$	$2.85 \times 10^{-4}$
SC50	4.31	$1.84 \times 10^1$	$7.46 \times 10^{-4}$
SC60	5.52	$5.09 \times 10^1$	$3.45 \times 10^{-4}$

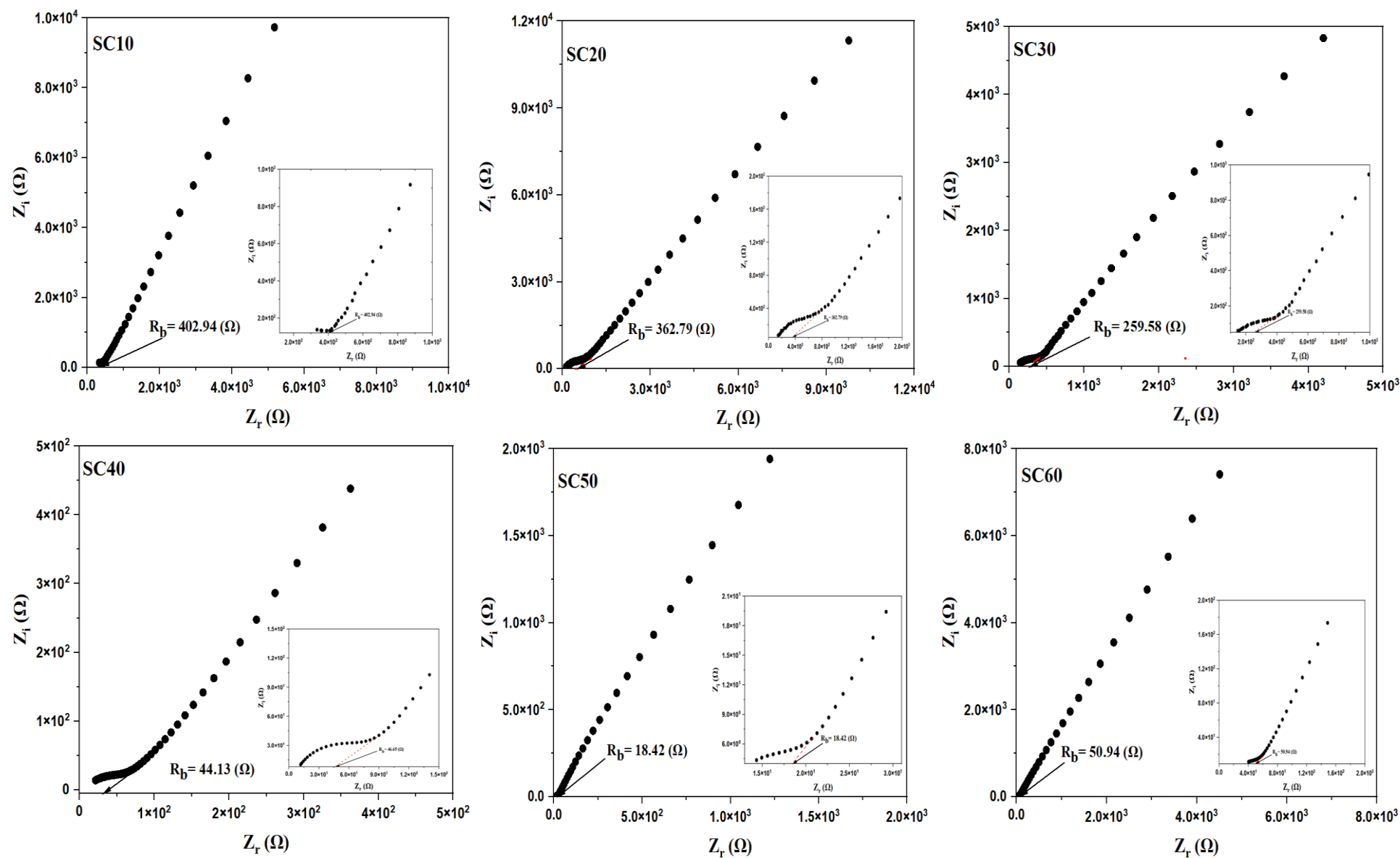


Figure S1. EIS plots showing the bulk resistance of MC/PC/K3PO4/glycerol SBEs

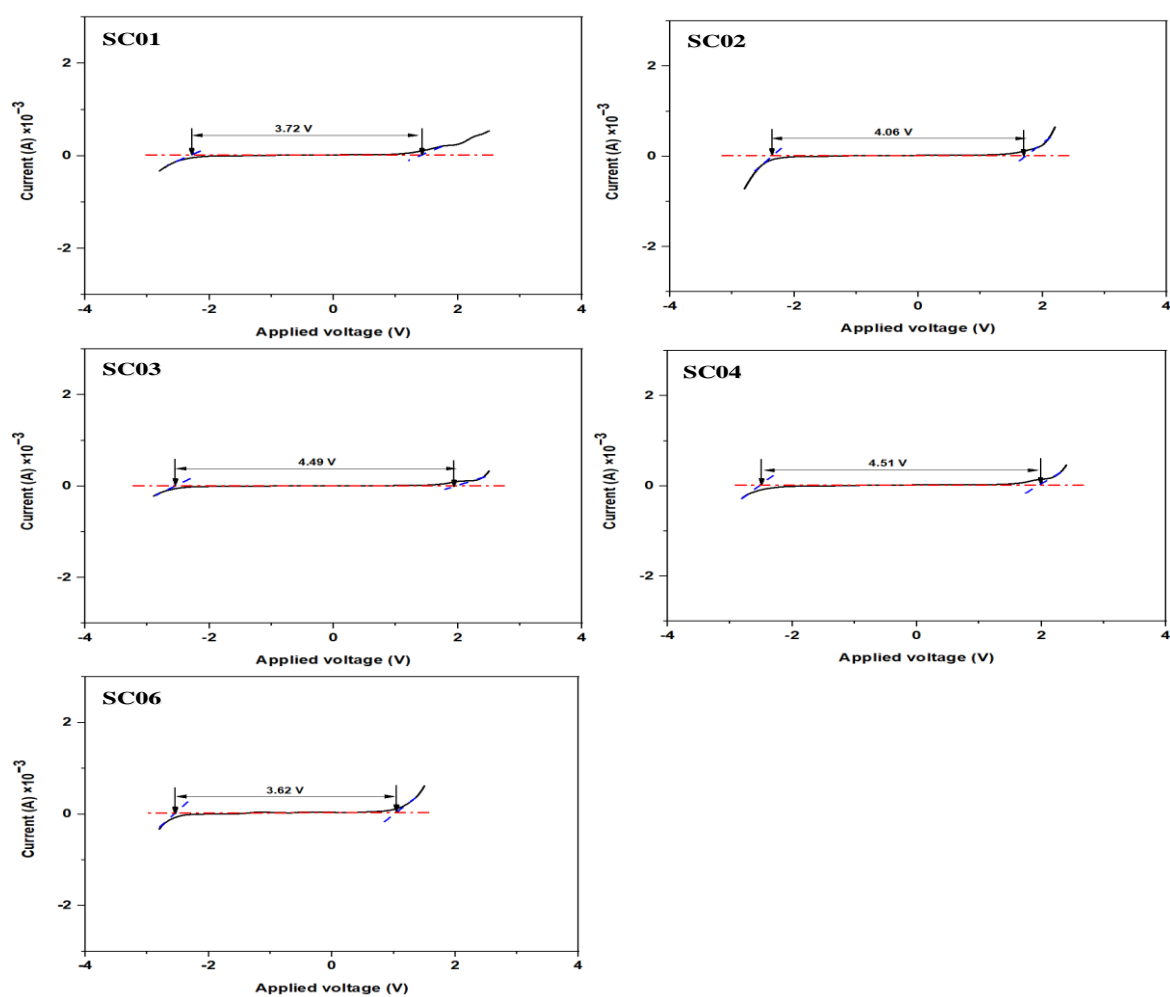


Figure S2. LSV curves showing the electrochemical stability window of remaining MC/PC/K<sub>3</sub>PO<sub>4</sub>/glycerol-based SBEs