Electronic Supplementary Material (ESI) for Faraday Discussions.

Effect of Ionic Conductivity of Electrolyte on Printed Planar and Vertical Organic Electrochemical Transistors

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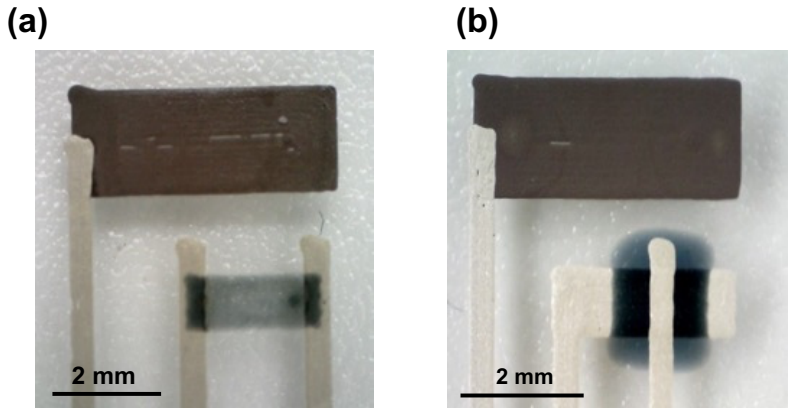

Figure S1. optical images of printed planar device (a), and vertical structure (b).

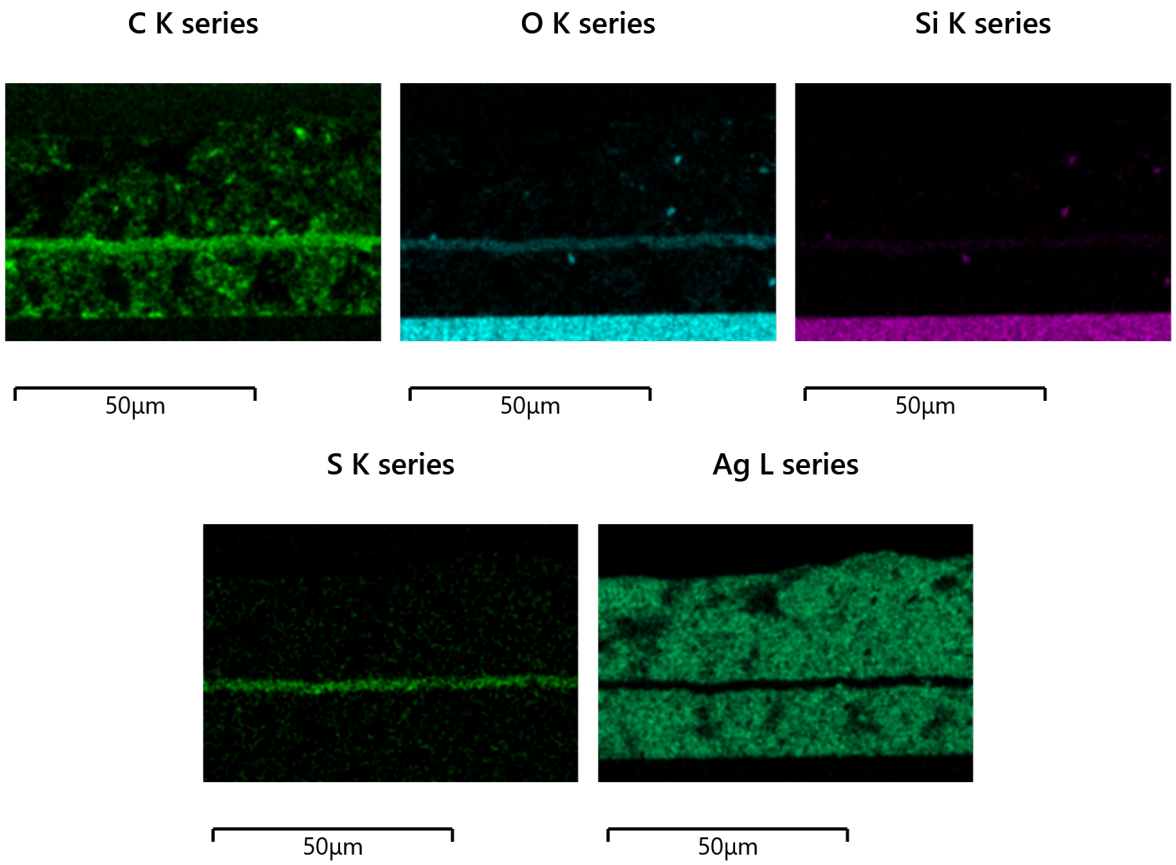

Figure S2. EDX results for printed vertical OECTs.

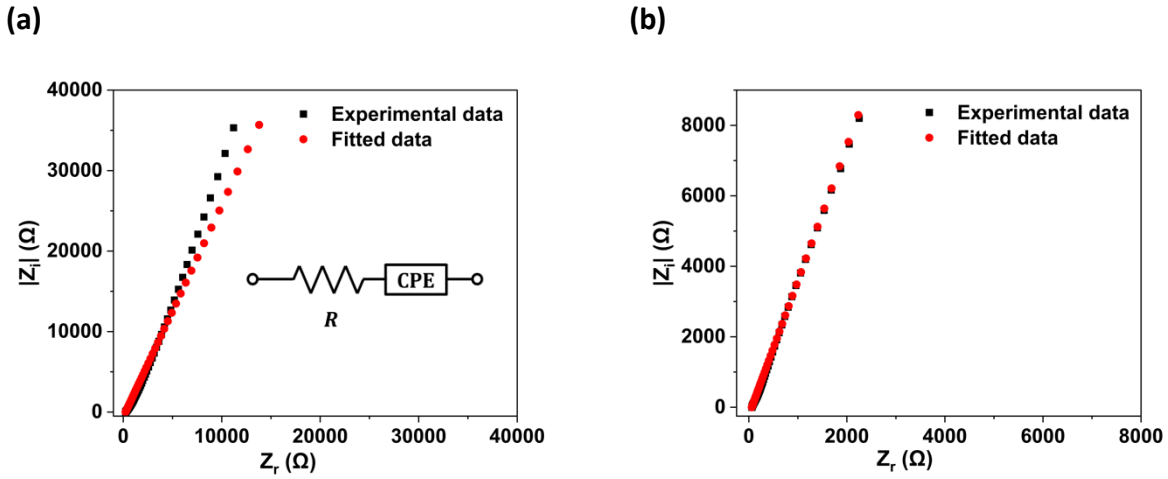

Figure S3. Fitted Nyquist plots for iongel (a), and organogel(b).

Table S1.fitted parameters for EIS results.

Gel	R(Ω)	CPE ($F.s^{\alpha-1}$)	α
Iongel	234	$6.37E^{-6}$	0.78
Organogel	60	$25.06E^{-6}$	0.83

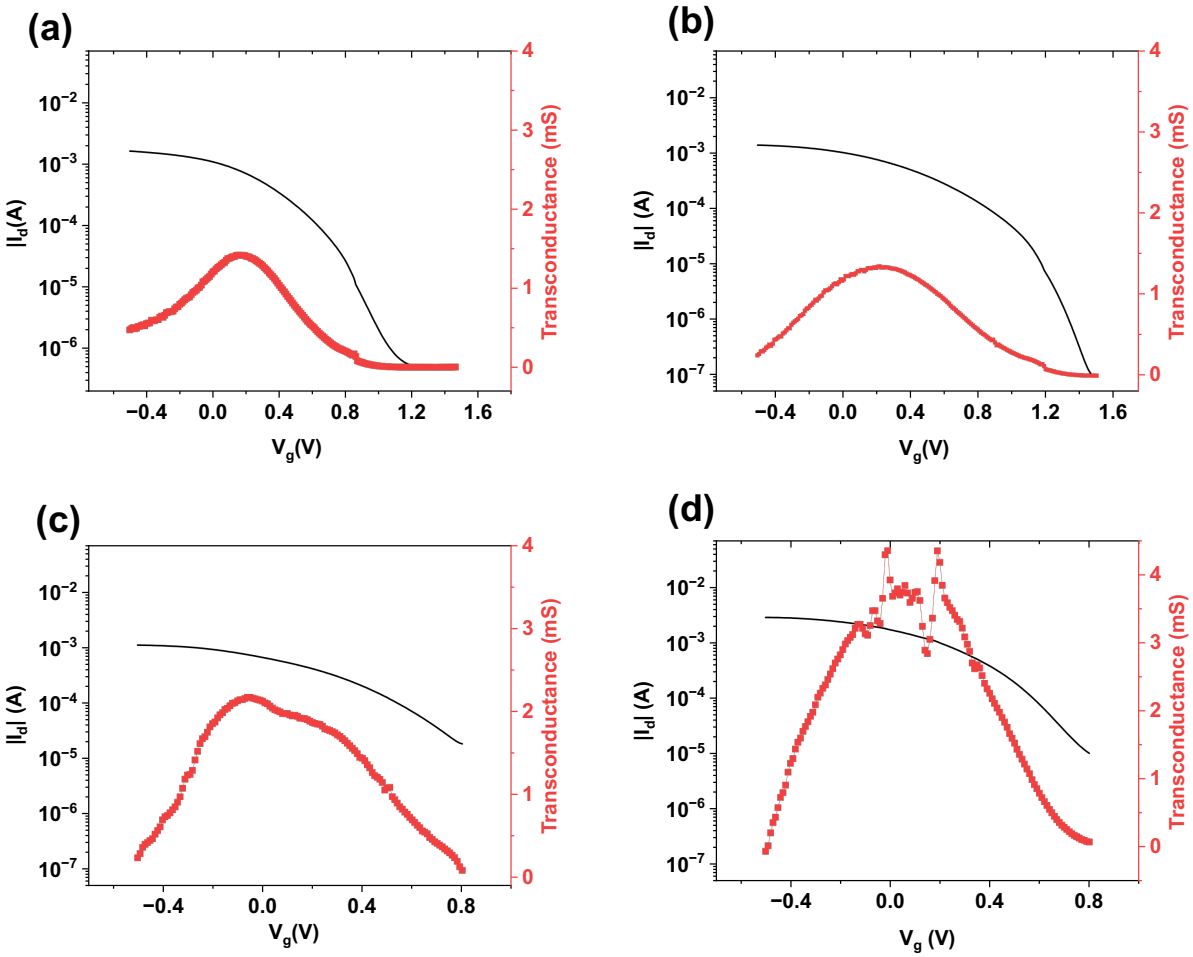

Figure S4. Transfer curves (V_d= -0.2 V) of planar OECTs with iongel (a,b) and organogel (c,d).

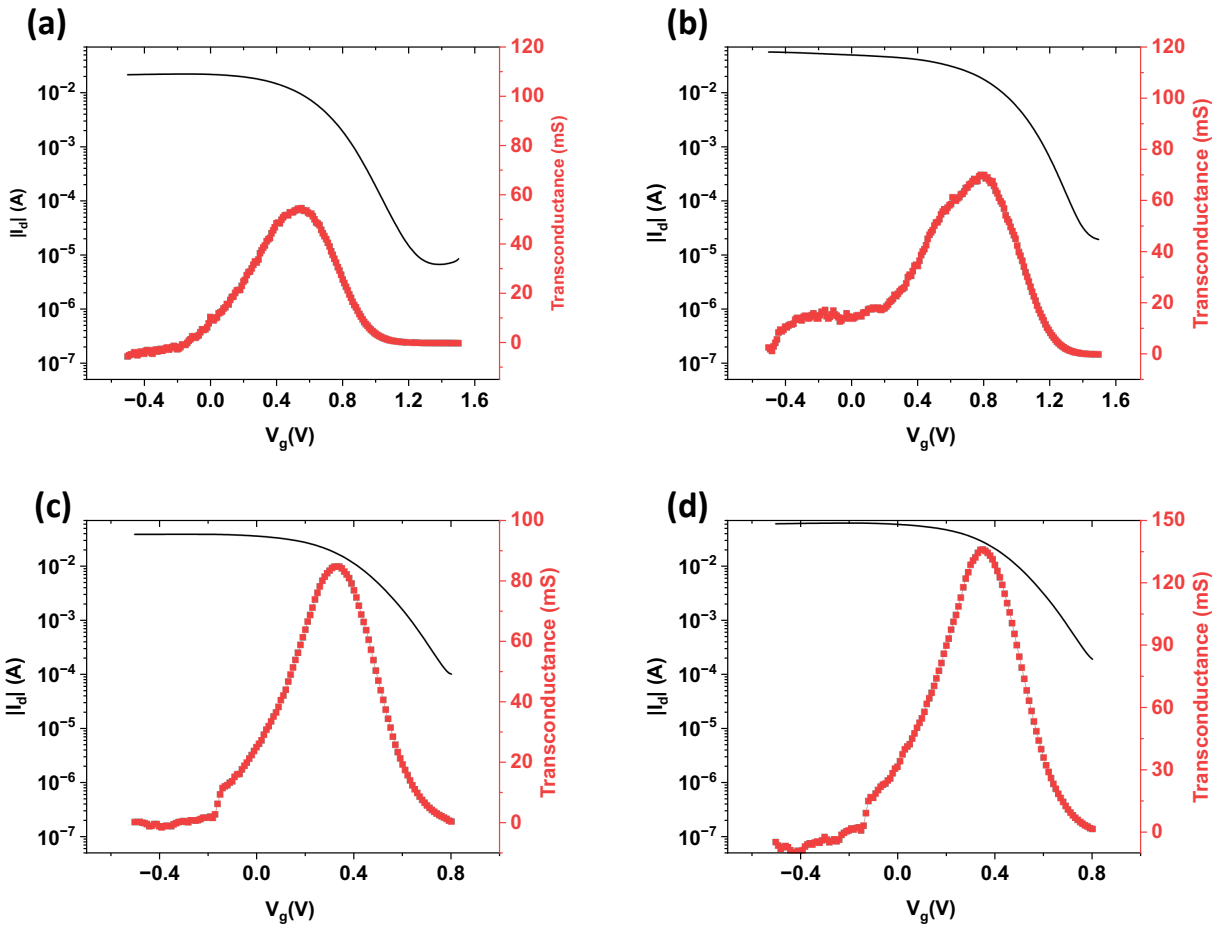

Figure S5. Transfer curves (V_d= -0.2 V) of vertical OECTs with iongel (a,b) and organogel (c,d).

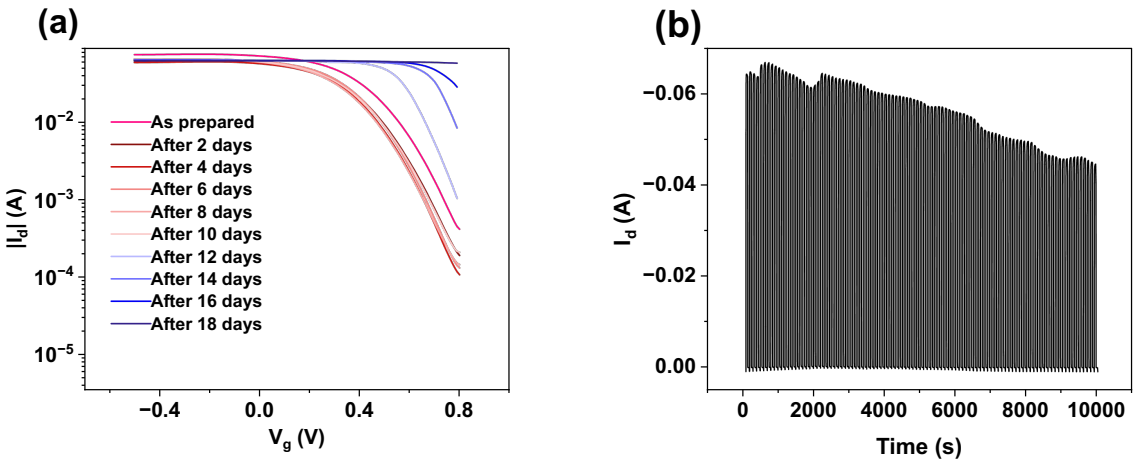

Figure S6. Transfer curves (V_d= -0.2 V) of vertical OECT gated by organogel over 18 days (a), transient response of vertical OECT gated by organogel (V_g was pulsed from 0 V to 0.8 V for 50 s) (b).