Figure S5| Best-shot QAOA outcome and decoded MXene EIS parameter set (shots = 4096). Distribution of the top-10 measured bitstrings from the final $p = 1$ QAOA run at the selected angles (γ^*,β^*)=(2.8667, 0.6676) and trust-region width $\Delta = 0.08$. Bars report the observed counts (out of 4096 shots), and the bottom label highlights the best shot bitstring ($q_{20} \ldots q_0$) used for parameter decoding. The right-hand summary boxes list the corresponding run metadata (state index, Ising energy of the surrogate Hamiltonian, and the true complex-domain SSE evaluated with the full circuit model) and the decoded parameter vector $\theta = \{R_s, L, R_{ct}, Q_1, \alpha_1, Q_2, \alpha_2\}$ obtained by mapping the best-shot bitstring through the 3-bit discretization and bounded decoding rules (Table S1). This figure links the discrete QAOA measurement outcome to the physical circuit parameters used to generate the quantum EIS overlays.