RESEARCH HIGHLIGHTS

- MD could concentrate CSG RO brine by 10-fold (90% water recovery) without scaling.
- Feed salinity increase and CO$_2$ permeation negatively affected MD water flux.
- Current density and water circulation rates strongly influenced ME performance.
- Combining MD and ME reduced thermal energy consumption of MD by 22 MJ/m$^3_{\text{distillate}}$. 