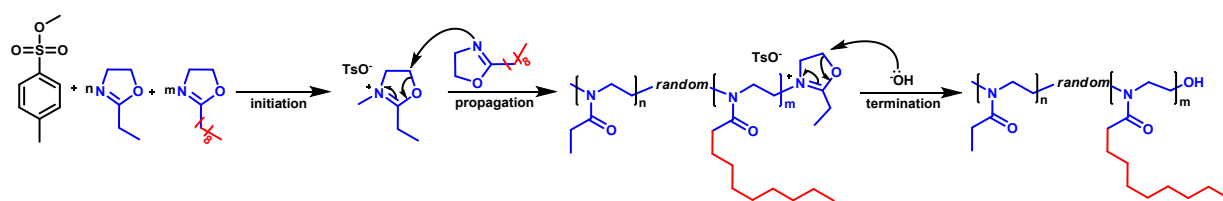


Supporting Information

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1. Synthesis of P[(EtOx)₉₀-*ran*-(NonOx)₁₂]



Scheme S1. Schematic representation of the living cationic ring-opening co-polymerization of 2-ethyl- and 2-nonyl-2-oxazoline leading to amphiphilic P[(EtOx)-*ran*-(NonOx)] random copolymers.

2. Characterization data of P[(EtOx)₉₀-*ran*-(NonOx)₁₂]

¹H-NMR spectroscopy

Poly[(2-ethyl-2-oxazoline)-*ran*-(2-nonyl-2-oxazoline)]: ¹H NMR (300 MHz, CDCl₃, δ): 3.80 – 3.15 (4H, -CH₂-CH₂-N-), 3.1 – 2.8 (3Hⁱⁿⁱ, CH₃-NCOR), 2.50 – 2.00 (2H; -NCOCH₂-), 1.6 – 1.25 (2H; -NCOCH₂-CH₂-R), 1.40 – 1.11 (12H; -NCOCH₂-CH₂-(CH₂)₆CH₃), 1.11 – 0.82 (3H; -NCOCH₂CH₃), 0.80 – 0.65 (3H; -NCOCH₂-CH₂-(CH₂)₆CH₃).

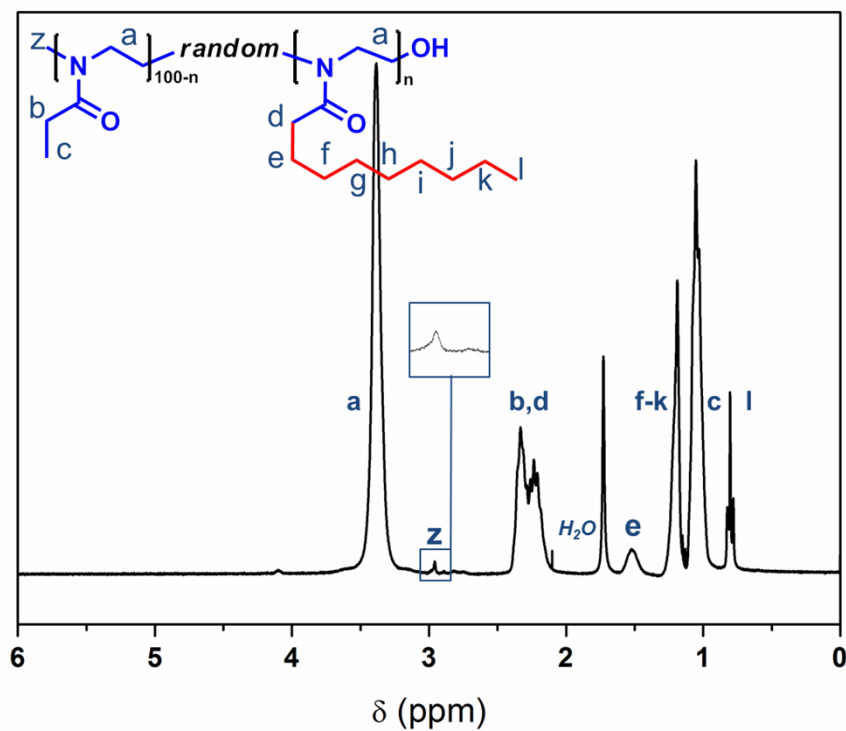


Figure S1. ^1H NMR spectrum of $\text{P}[(\text{EtOx})_{90}\text{-ran-}(\text{NonOx})_{12}]$ (300 MHz, CDCl_3 , 298K).

Size Exclusion Chromatography (SEC)

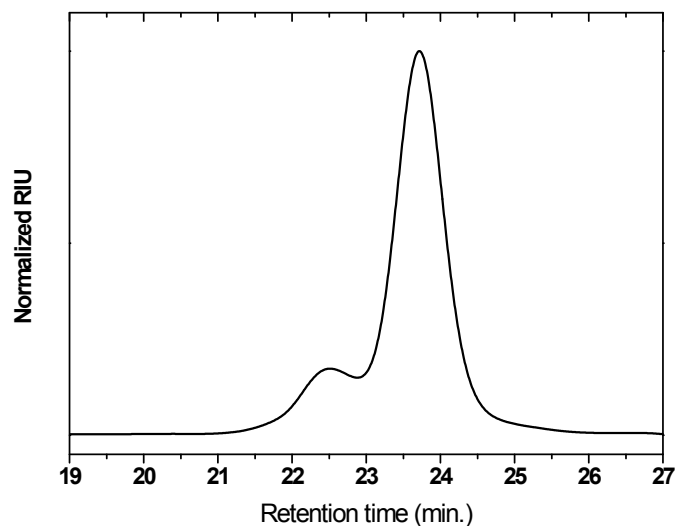


Figure S2. Size exclusion chromatogram of $\text{P}[(\text{EtOx})_{90}\text{-ran-}(\text{NonOx})_{12}]$. Eluent: N,N-Dimethylacetamide with 50 mM LiCl. $M_n = 18000$, $\bar{D} = 1.08$. The molar masses were calculated against PMMA standards.