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New amphiphilic copolymers for PDMS-based nanocomposite films with long-term marine antifouling performance

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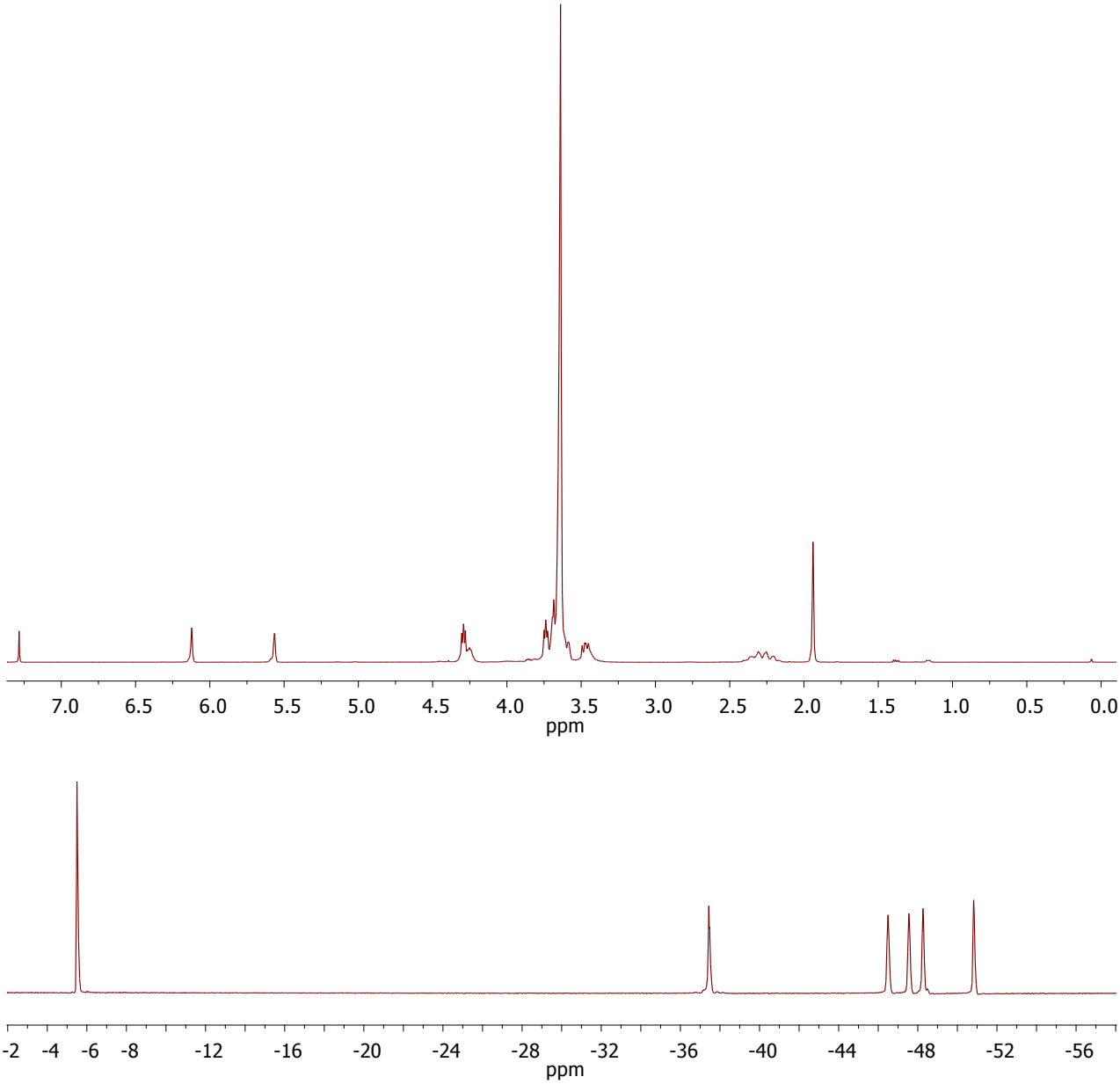

Figure S1. 1H-NMR spectrum of EF monomer ($CDCl_3$) (Top); 19F-NMR spectrum of EF monomer (CF_3COOH/ $CDCl_3$) (Bottom).

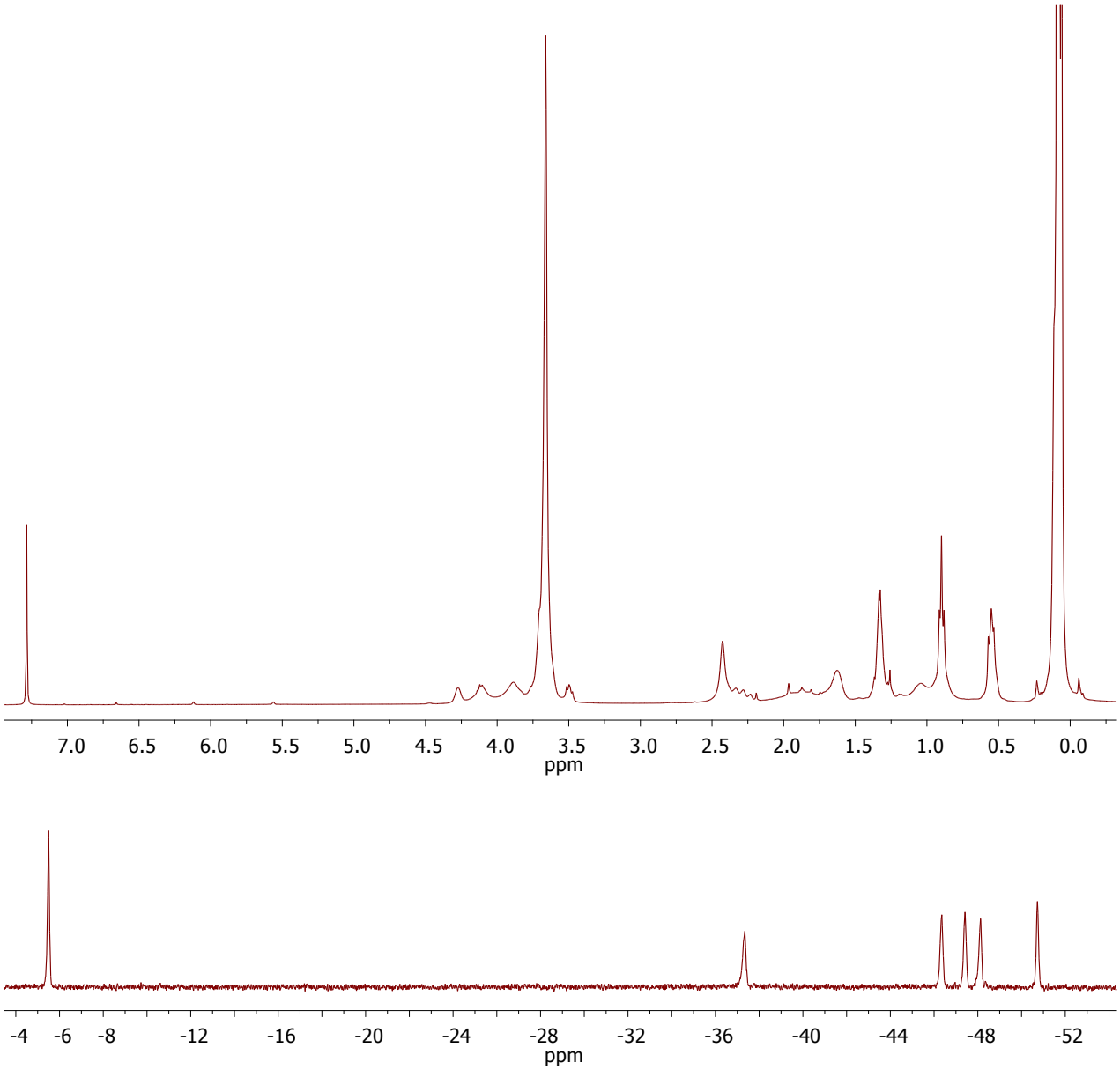

Figure S2. 1H-NMR spectrum of Si-*co*-EF51 ($CDCl_3$) (Top); 19F-NMR spectrum of Si-*co*-EF51 (CF_3COOH/ $CDCl_3$) (Bottom).

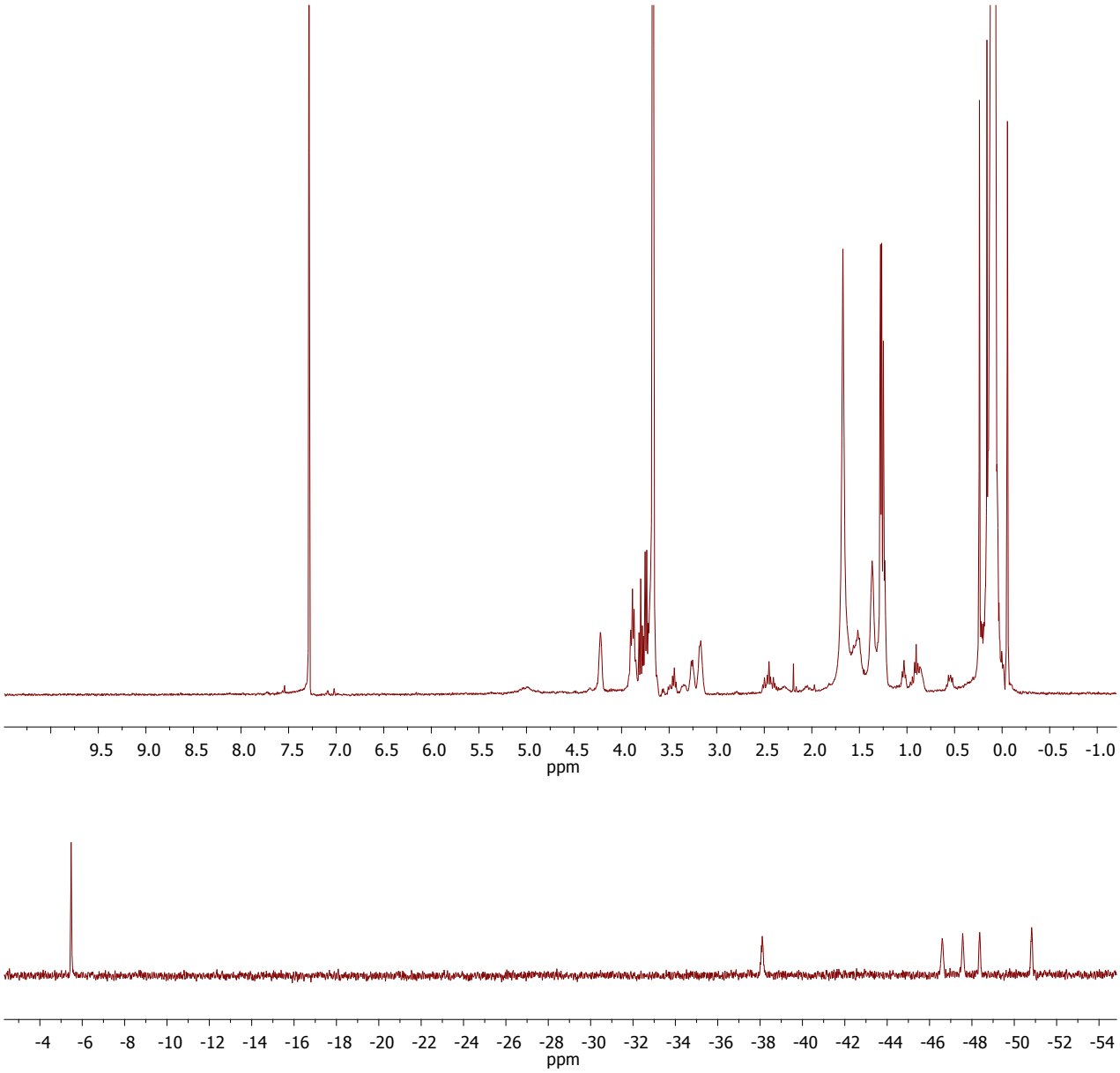

Figure S3. 1H-NMR spectrum ($CDCl_3$)(top) and 19F-NMR spectrum (CF_3COOH/ $CDCl_3$) (bottom) of material extracted from Si-*co*-EF51/4 film during toluene swelling experiment

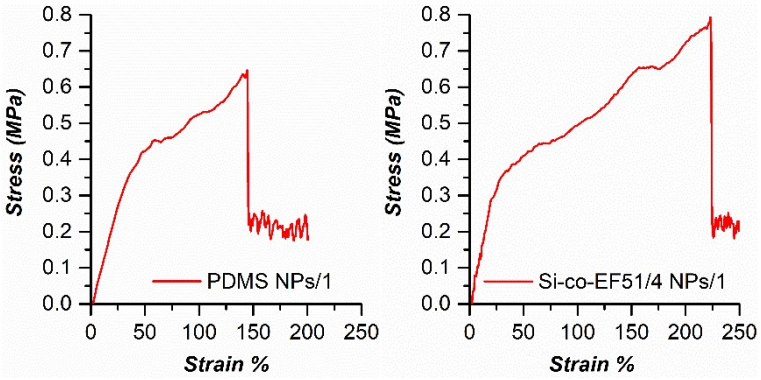

Figure S4: Stress-strain tensile test curves for PDMS NPs/1 (a) and Si-*co*-EF51/4 NPs/1 (b).

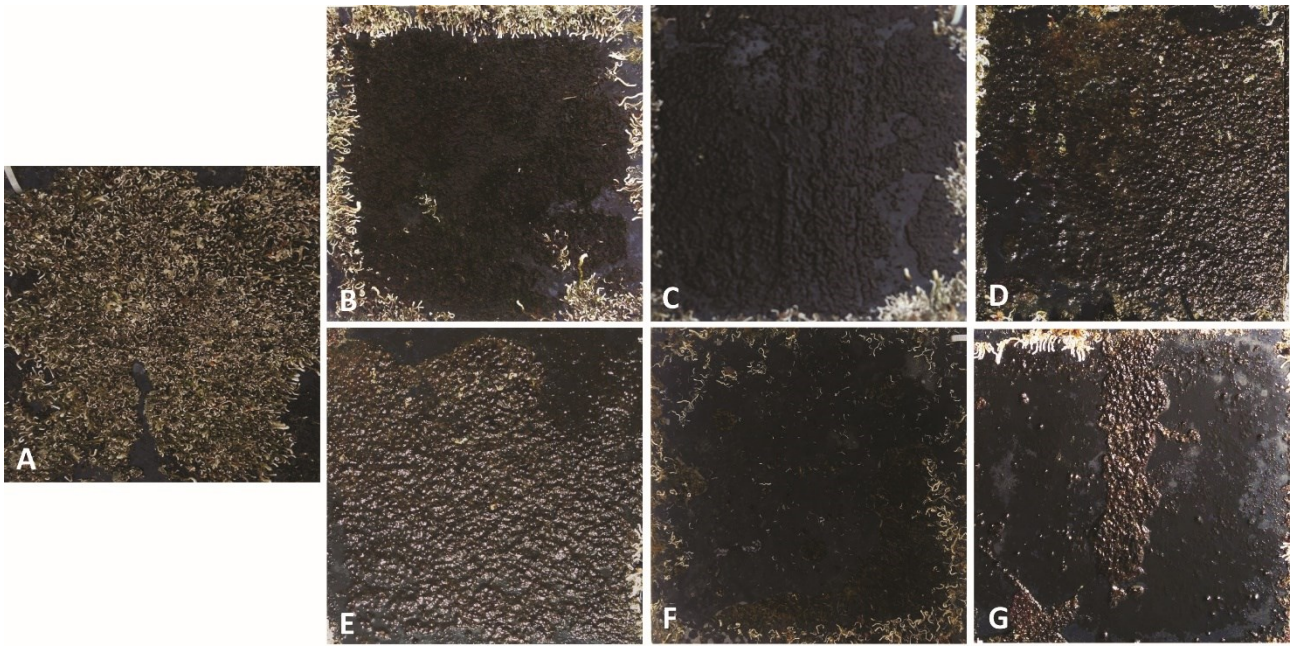

Figure S5: Pictures of coated panels after 10 months of immersion: PVC (A); PDMS (B); PDMS NPs/0.5 (C); Si-*co*-EF51/1 NPs/0.1 (D); Si-*co*-EF51/1 NPs/0.5 (E); Si-*co*-EF51/4 NPs/0.1 (F); Si-*co*-EF51/4 NPs/0.5 (G).

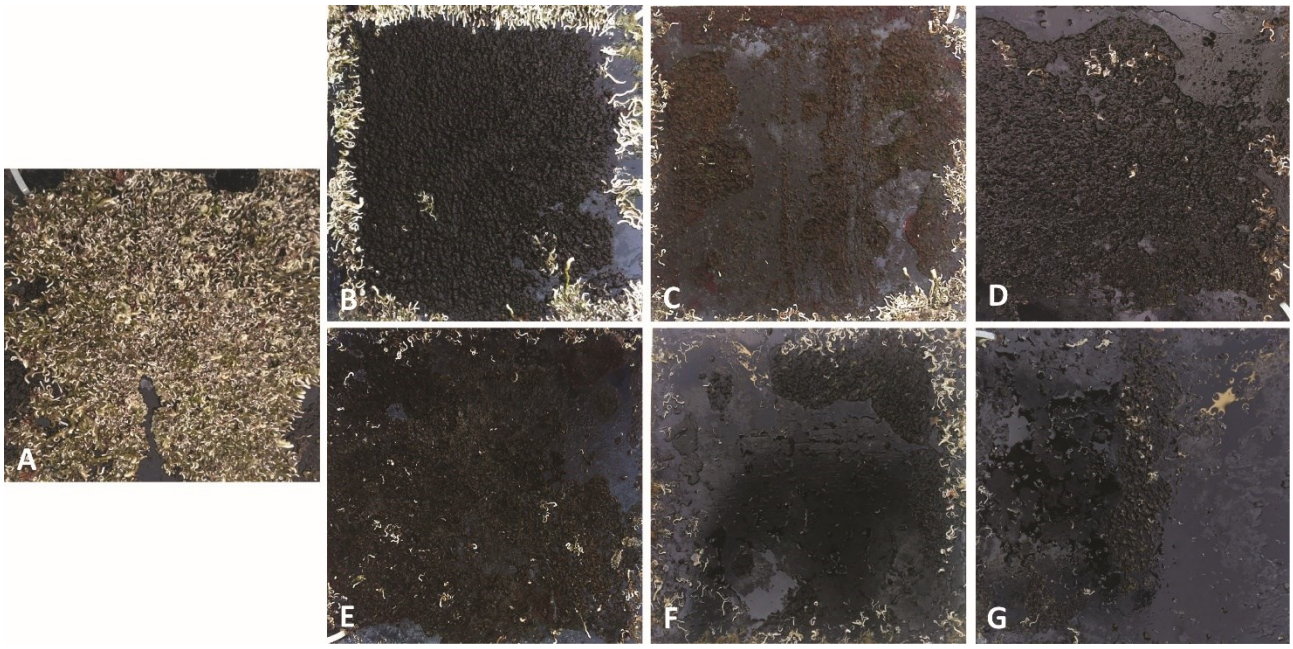

Figure S6: Pictures of coated panels after 10 seconds of exposure to 150 bar water-jet: PVC (A); PDMS (B); PDMS NPs/0.5 (C); Si-*co*-EF51/1 NPs/0.1 (D); Si-*co*-EF51/1 NPs/0.5 (E); Si-*co*-EF51/4 NPs/0.1 (F); Si-*co*-EF51/4 NPs/0.5 (G).