

Supplementary Materials

Contents

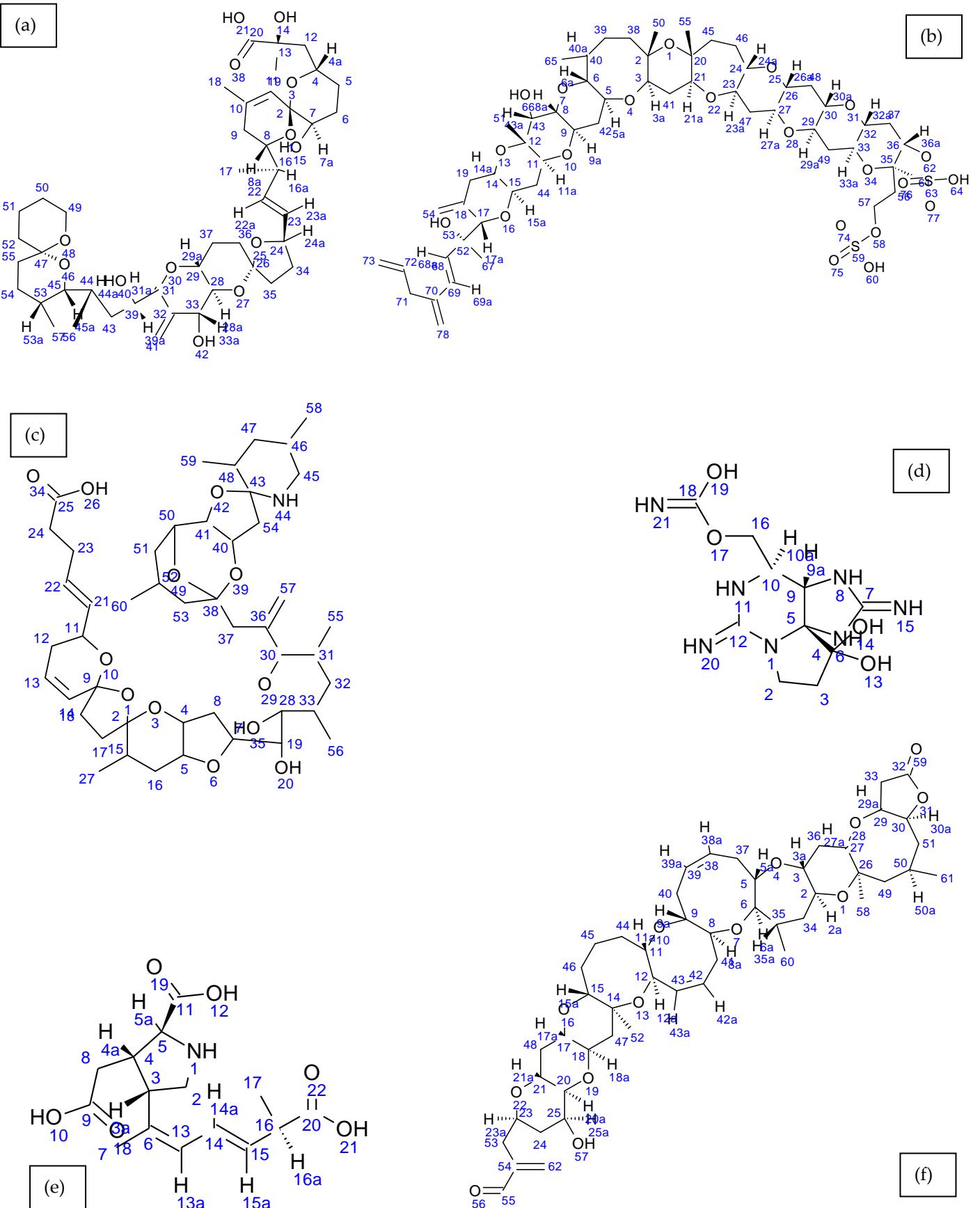
Figure S1: Marine biotoxin structures: (a) Okadaic acid (DSP); (b) yessotoxin (DSP); (c) Azaspiracid (AZP); (d) Saxitoxin (PSP); (e) Domoic acid (NSP); (f) 7 Brevetoxin (PbTX-1) Type-A (NSP); (g) PbTX-2 (Type-B); (h) PbTX-3 (Type-B); (i) Ciguatoxin-1 (CTX); (j) Ciguatoxin-2; (k) 8 Ciguatoxin-3; (l) Ciguatoxin-4A; (m) Ciguatoxin-4B; (n) Pectenotoxin-1 (PTX-1: DSP), (o) Pectenotoxin-2 (PTX-2: DSP), (p) Dinophysistoxin-1 (DTX-1: DSP), (q) Dinophysistoxin-2 (DTX-2: DSP) and (r) Dinophysistoxin-3 (DTX-3: DSP).

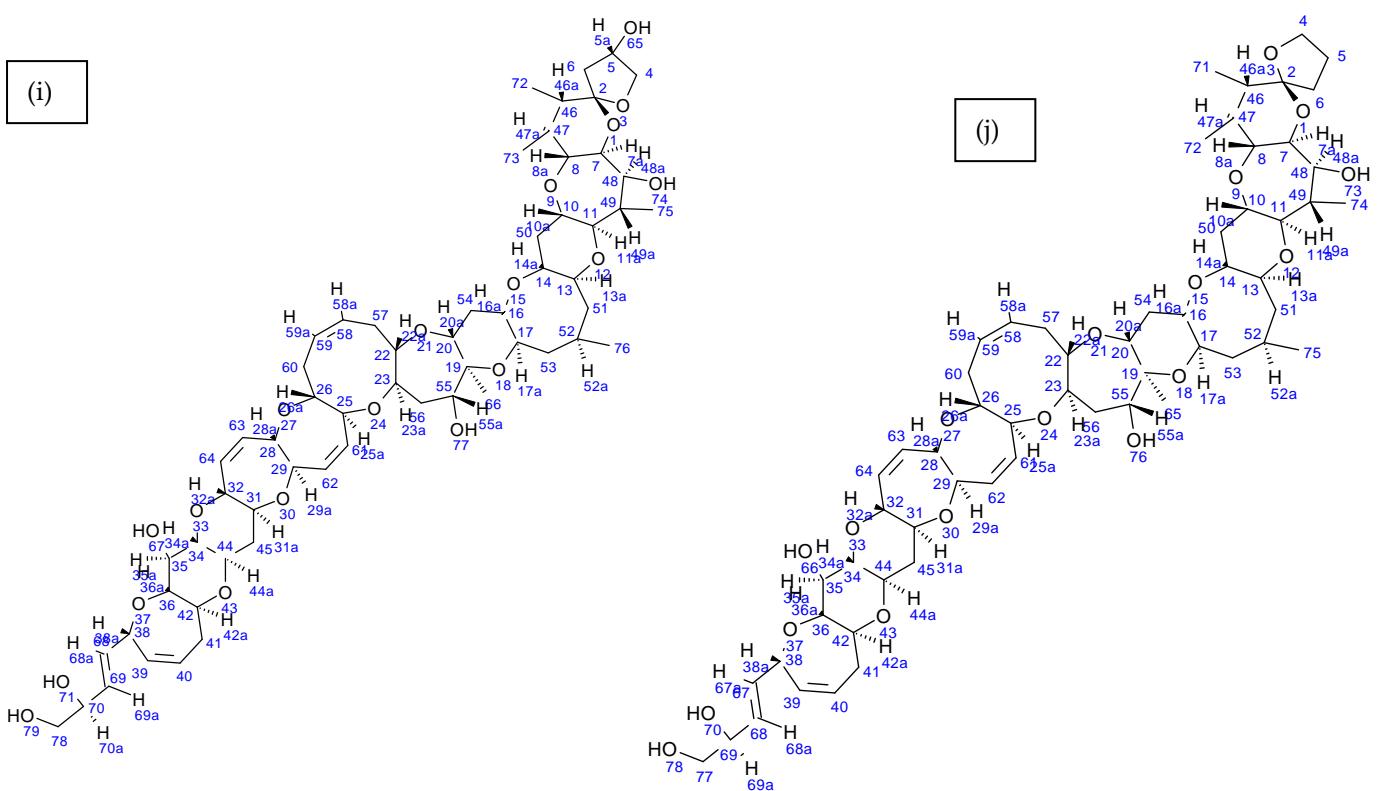
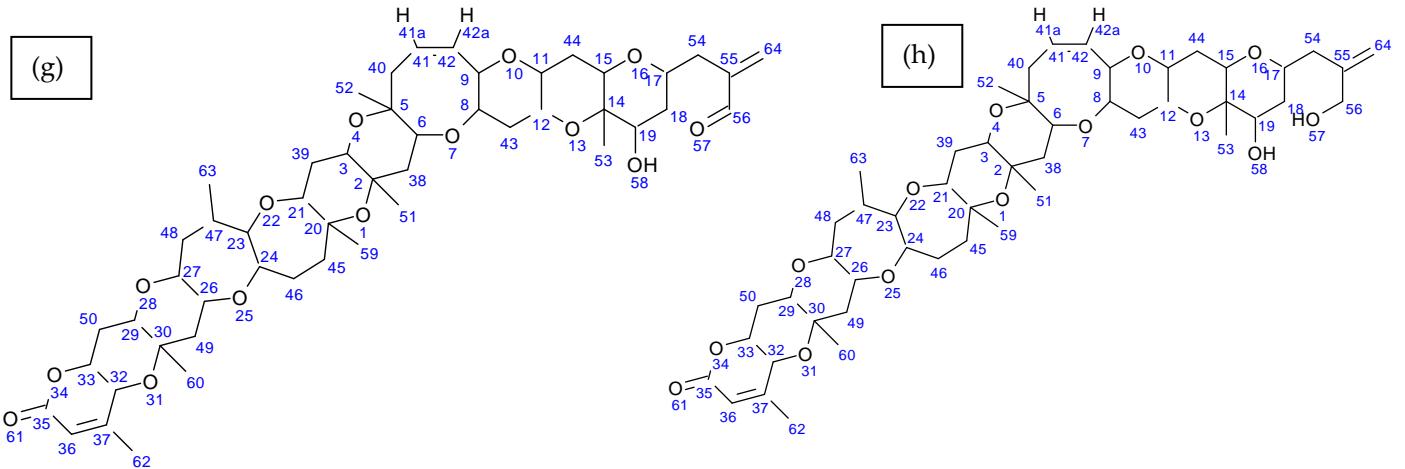
Figure S2: (a) SPATT bags and discs with various resins contained within 80 mm polyester mesh; (b) SPATT bags being deployed. However, after this initial design other studies applied the same bags in a different manner to support the 13 SPATT bags in the water flow. Diagram [158]; (c) SPATT bags among holding tubes. (A) 100 mm nylon mesh, 14 (B) resin, (C) inner holding ring; (D) outer holding ring, (F) 75 mm diameter embroidery ring and (E) final assembled 15 sampling disk [242]. (d) SPATT bags attached to aluminum alloy [160].

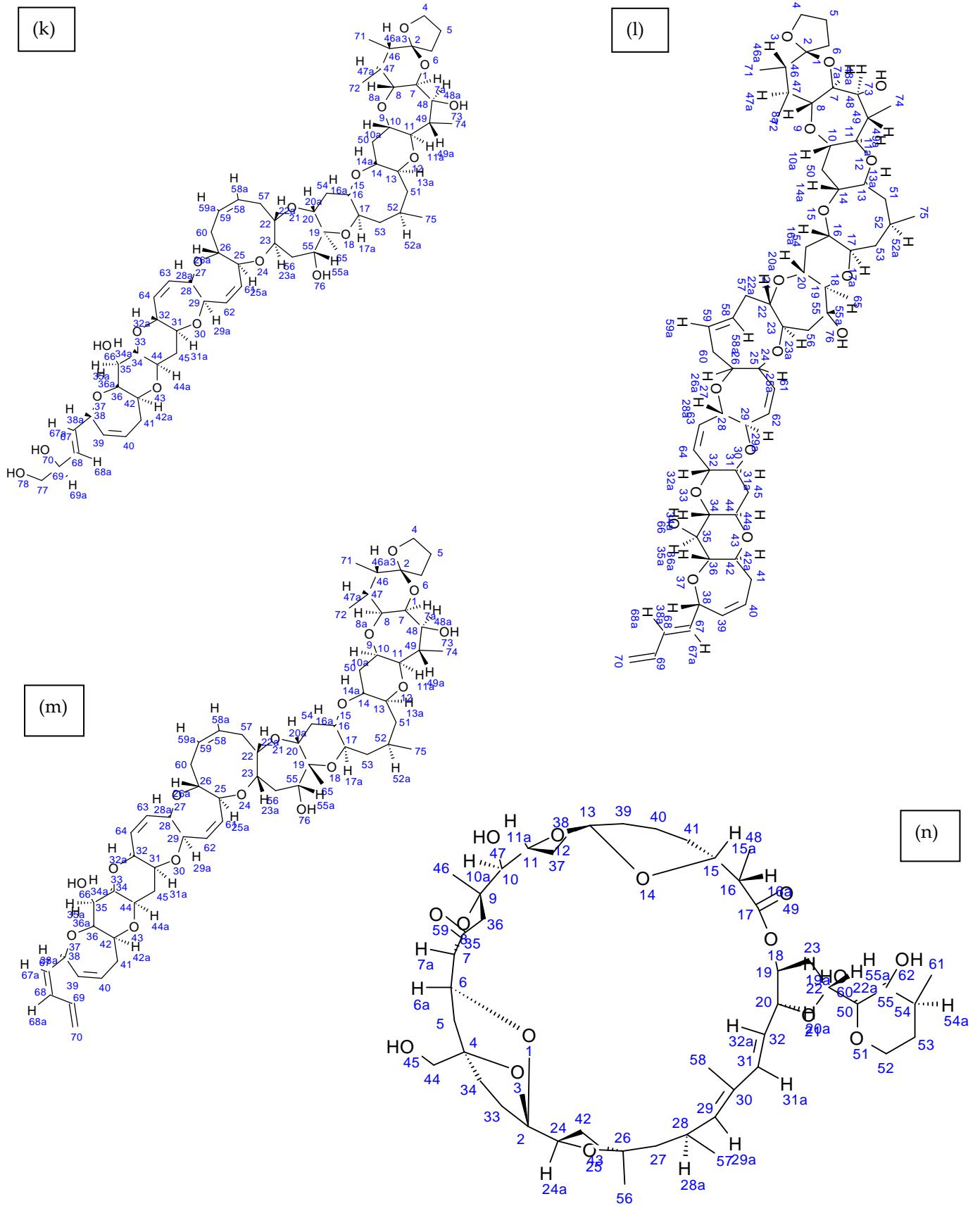
Figure S3: (a) Chemical Structure DIAION HP-20 (Aromatic synthetic adsorbent ion-exchange resin) Styrene-18 divinylbenzene [162]; (b) SEPABEADS SP700 (Aromatic synthetic adsorbent ion-exchange resin) [165] (c) SEPABEAD 19 SP207 (Modified Aromatic synthetic adsorbent ion-exchange resin) Brominated styrene divinylbenzene [164]; (d) 20 DIAION HP2MG (Methacrylic synthetic adsorbent ion-exchange resin) Polymethacrylate [164].

Figure S4: Schematic diagram of pumping system [159].

Figure S5: Organic Chemical Integrative Sampler (POCIS) device [316]: (a) POCIS or Aquasense-P disk; (b) Polar 25 Organic Chemical Integrative Sampler (POCIS) carrier; (c) carrier on which one to three POCIS can be mounted; (d) 26 schematic diagram of extraction of analyte from POCIS device.







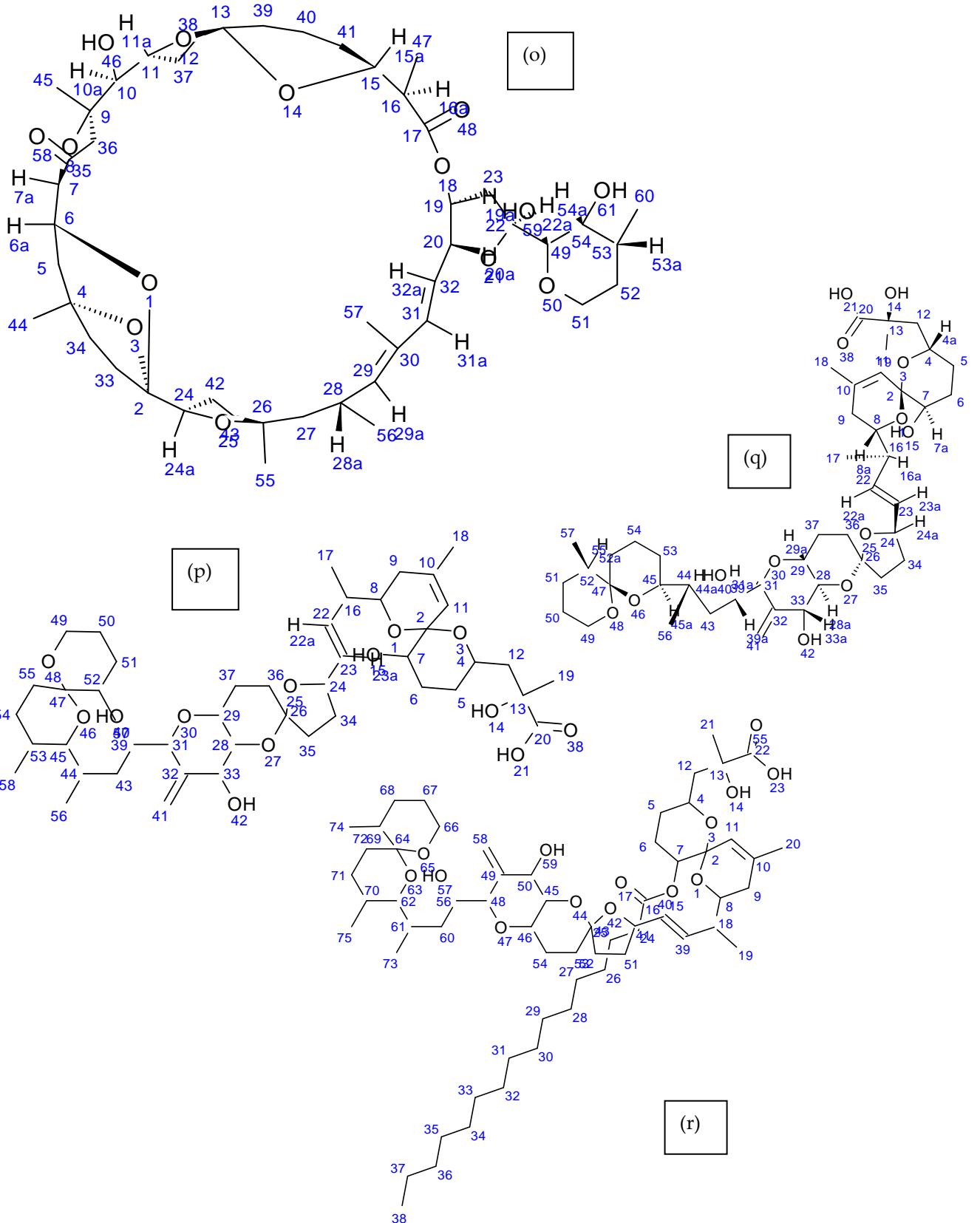


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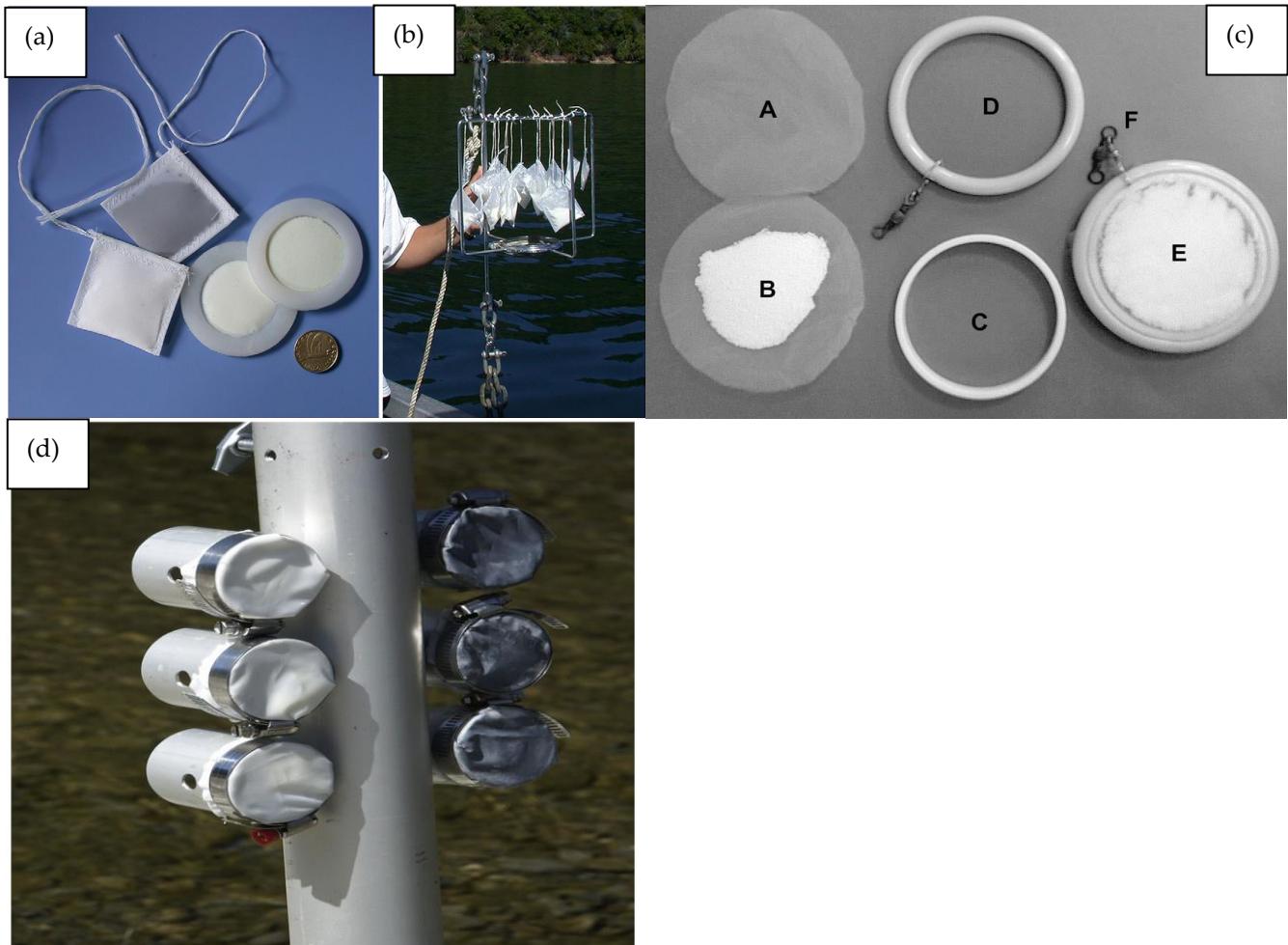


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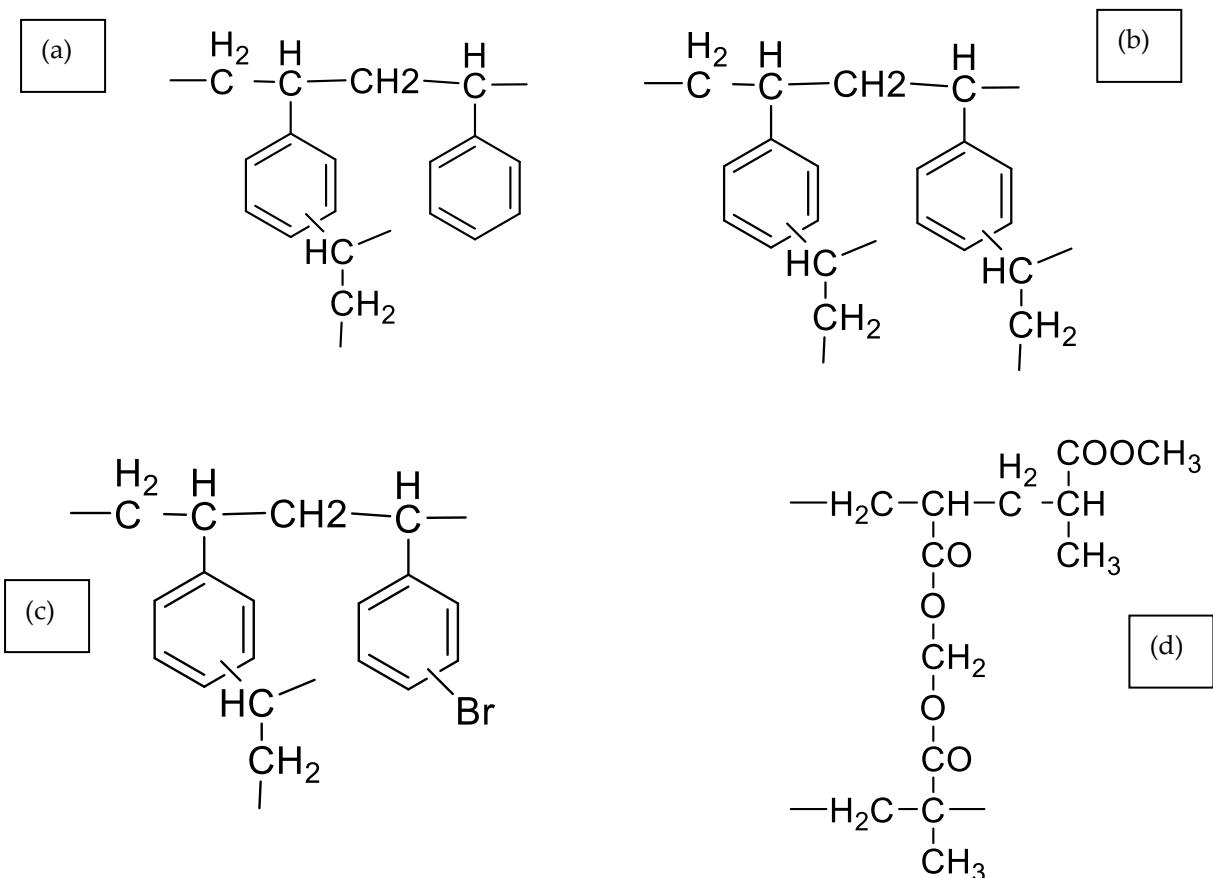


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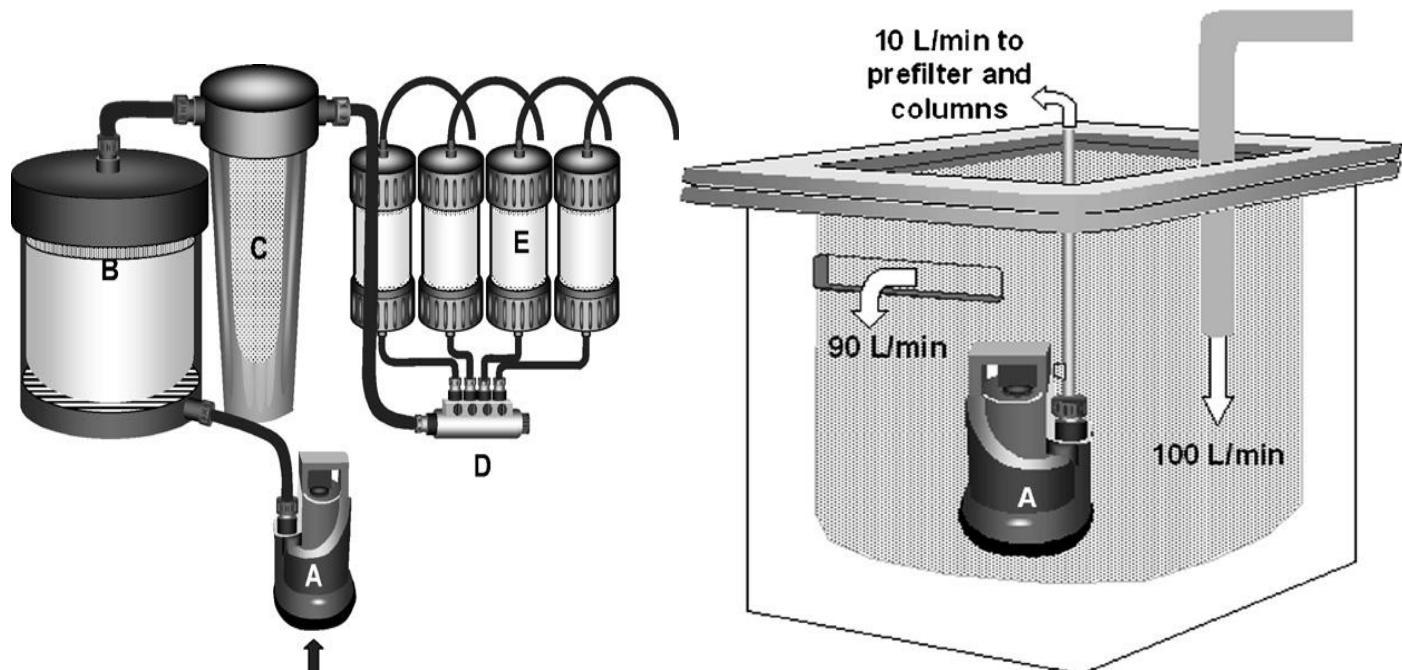


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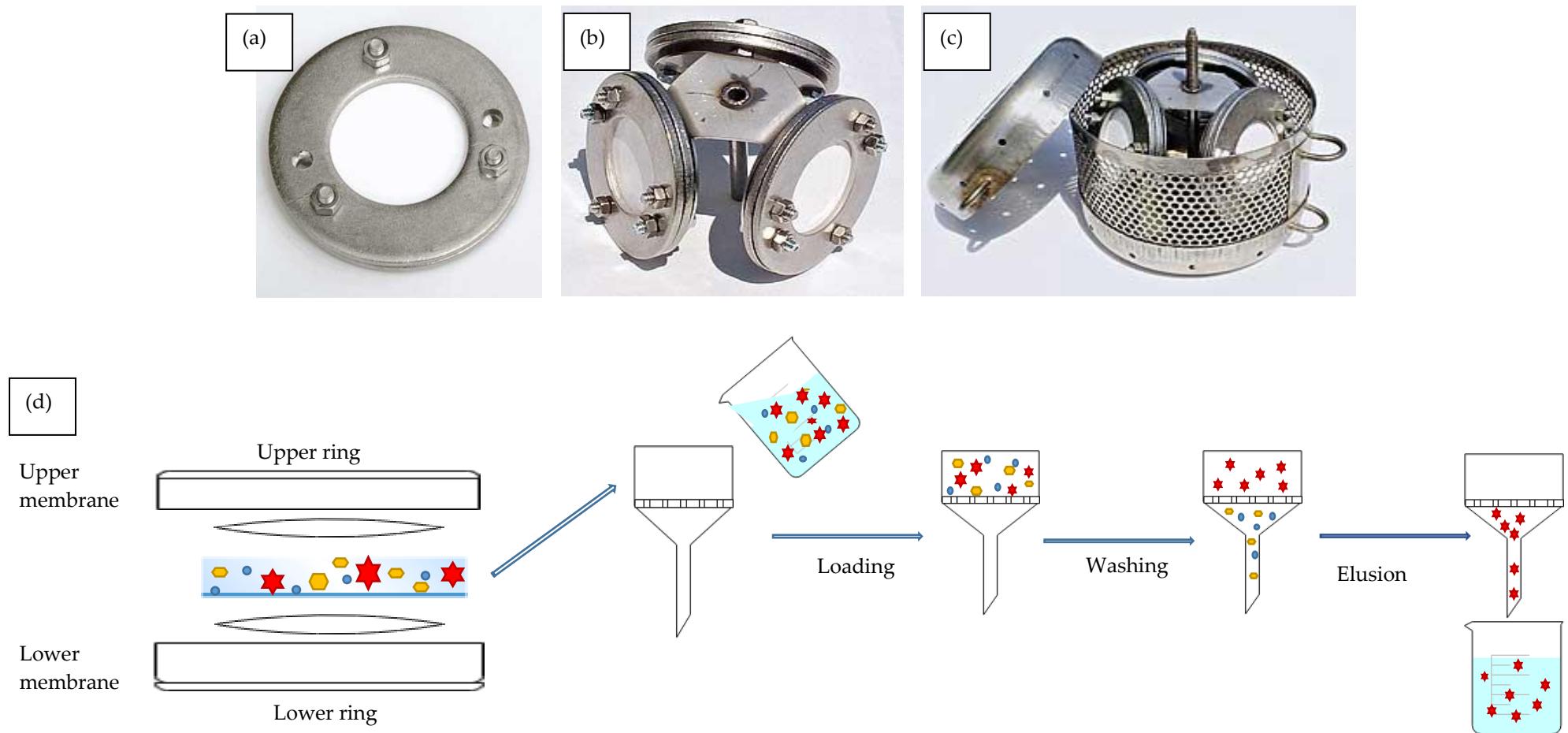


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