

# Synthesis and Separating Properties of Tris(Merrifield Peptide Resin)

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A triazacrown ion exchanger, 1,13,16-trioxa-4,7,10-triazacyclooctadecane (TOTA)-4,7,10-tris(Merrifield peptide resin) was synthesized. This resin has a capacity of 0.1 meq/g dry resin. The resin was used for the elution chromatographic separation of lithium isotopes. Upon column chromatography [0.2 cm I. D. × 35 cm height] using 3.0 M NH<sub>4</sub>Cl solution as an eluent, the single stage separation factor of 1.027 was obtained. The heavier isotope, <sup>7</sup>Li<sup>+</sup>, was enriched in the resin phase, while the lighter isotope, <sup>6</sup>Li<sup>+</sup>, was enriched in the solution phase.