

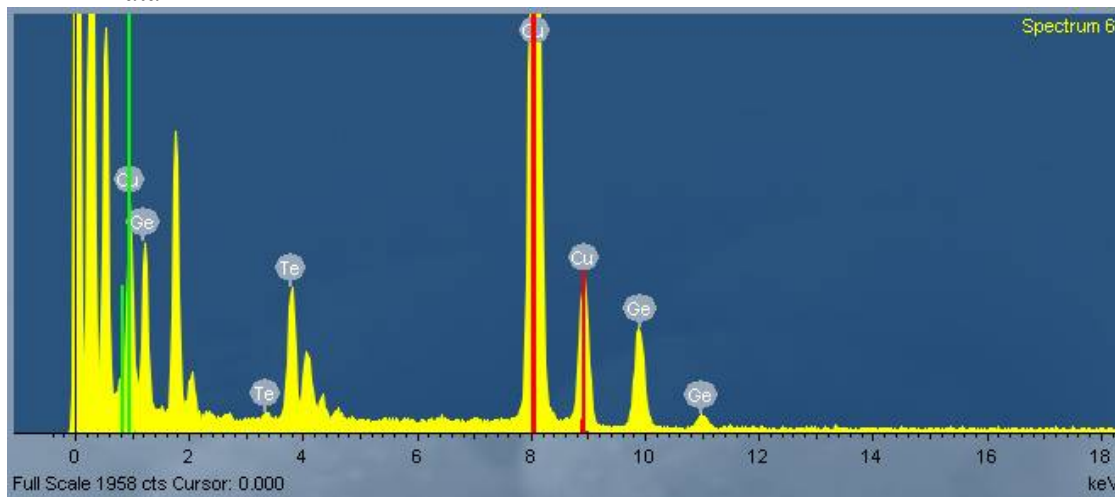
Supplementary Information

NMR Summary

Synthesis of TOP-GeI₂ Complex (**1**). 0.164 mg of GeI₂ (0.5 mMol, Gelest) and 0.225 mL of *n*-trioctylphosphine (0.5 mMol, Strem) were added to 1 mL CDCl₃ (Aldrich) and stirred at room temperature for 1 hour. The resulting solution was clear yellow. δ_{H} (300 MHz, CDCl₃, Si(CH₃)₄): 0.880 (10.8 H, t, P((CH₂)₇CH₃)₃, J=6.93) 1.18-1.39 (29 H, m, P(CH₂(CH₂)₆CH₃)₃) 1.39-1.5 (7 H, m, P(CH₂(CH₂)₆CH₃)₃) 1.5-1.7 (7.3 H, m, P(CH₂(CH₂)₆CH₃)₃) 2.13 (6 H, m, P(CH₂(CH₂)₆CH₃)₃). δ_{P} (121 MHz, CDCl₃, 0.1% H₃PO₄): -23.08 (s).

Synthesis of GeI₂-Thiolate Complex (**2**). 0.164 mg of GeI₂ (0.5 mMole, Gelest), 0.225 mL of *n*-trioctylphosphine (0.5 mMole, Strem) and 120 μ L of 1-dodecanethiol (0.5 mMole, Aldrich) were added to 1 mL of CDCl₃ (Aldrich) and stirred at room temperature for 1 hour. The resulting solution was clear yellow. δ_{H} (300 MHz, CDCl₃, Si(CH₃)₄): 0.880 (16 H, t, P((CH₂)₇CH₃)₃, J = 5.7) 1.1-1.35 (58 H, m, P(CH₂(CH₂)₆CH₃)₃) 1.35-1.5 (8.6 H, m, P(CH₂(CH₂)₆CH₃)₃) 1.5-1.8 (10 H, b, P(CH₂(CH₂)₆CH₃)₃) 2.39 (7 H, m, PH(CH₂(CH₂)₆CH₃)₃) 2.7117 (2 H, t, ¹³SC₂(CH₂)₁₀CH₃, J = 7.35) 7.08 (1.15 H, d quint, PH(CH₂)₇CH₃, J₁ = 480 J₃ = 5.5). δ_{P} (121 MHz, CDCl₃, 0.1% H₃PO₄): -23.08 (s, P(CH₂)₇CH₃) 10.1 (d sept, PH(CH₂)₇CH₃, J₁=480 J₂=11.5). δ_{P} (300 MHz, CDCl₃, 0.1% H₃PO₄, decoupled): 10.12 (s).

EDAX Data



EDAX data on GeTe nanoparticles in confirming 51.25% Te and 48.75% Ge. Copper was not included in quantification.

Histogram of Size Selected Samples:

