SeBr₂⁻ frame of the anion is planar with the linear SN groups standing perpendicular to this plane. The strong trans influence of the SN ligands makes the central four-membered ring highly asymmetric.  

Se₄Br₁₂⁻ is a new type of a mixed-valence polyselenium. The red tetraphenylphosphonium salt (orthorhombic, Pnma, a = 13.235, b = 24.822, c = 14.659 A; Z = 2) is a new type of a mixed-valence polyselenium for the structural chemistry of these systems.

The tetraethylammonium salt of the dimeric mixed-ligand complex [Se₂Br₄(SCN)₂]²⁻ crystallizes in space group P2₁/n, Z = 14.037 through the central four-membered ring highly asymmetric. The red tetraphenylphosphonium salt (orthorhombic, Pnma, a = 13.235, b = 24.822, c = 14.659 A; Z = 2) is a new type of a mixed-valence polyselenium for the structural chemistry of these systems. The central four-membered ring highly asymmetric.

Se₄Br₁₂⁻ is a new type of a mixed-valence polyselenium. The red tetraphenylphosphonium salt (orthorhombic, Pnma, a = 13.235, b = 24.822, c = 14.659 A; Z = 2) is a new type of a mixed-valence polyselenium for the structural chemistry of these systems. The red tetraphenylphosphonium salt (orthorhombic, Pnma, a = 13.235, b = 24.822, c = 14.659 A; Z = 2) is a new type of a mixed-valence polyselenium for the structural chemistry of these systems.