



**Fig 2.** Pillar[n]arenes, which were first reported by Ogoshi's group in 2008, are a family of pillar-shaped macrocyclic compounds that contain a para-bridge connection between the 1,4-dialkoxybenzene units. They have an electron-rich cavity that has host-guest properties, and it is known that pillar[n]arenes form stable complexes with cations. A water-soluble pillar[6] arene (P6A) is carrying 12 carboxylate anions. The diameter across the cavity of P6A is approximately 0.67 nm.