Synthesis and Structural Characterization of *trans*-Bis[1,3-bis(methoxyethyl)-4,5-bis(2,4,6-trimethylphenyl)imidazolidin-2-ylidene]dichloropalladium(II)

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A Pd(II) complex of a new *N*-heterocyclic carbene (NHC) ligand with bulky substituents and functionalized methoxy-donor side arms has been synthesized and characterized by elemental analyses, ^{1}H and ^{13}C NMR, and IR spectroscopy. Molecular and crystal structures of the title complex have been determined by single crystal X-ray diffraction. The compound crystallizes in the monoclinic space group $P2_1/c$, with a = 15.927(2), b = 8.489(2), c = 20.309(5) Å, β = 99.213(2)°, Z = 2, D_x = 1.253 g cm^{-3}. The palladium atom is situated on an inversion center. There are several weak intramolecular C–H···N/O interactions.

Key words: Bulky Substituents, *N*-Heterocyclic Carbene, Palladium(II) Complex, Imidazolidin-2-ylidene, Methoxy-donor