New coordination mode of bis(diphenylphosphine) methanide diselenide. Synthesis and X-ray crystal structure of [(?5 C5Me5)Rh&{?3 (SePPh2)2CH&}]ClO4

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The dinuclear complexes [(?5 C5Me5)RhCl2]2 and [(?6 C6Me6)RuCl2]2 reacted with dppmSe2 giving the cationic compounds [(?5 C5Me5)RhCl&{?2 (SePPh2)2CH2&}]+ (1) and [(?6 C6Me6)RuCl&{?2 (SePPh2)2CH2&}]+ (2), which were isolated as perchlorate salts. Deprotonation reactions of these compounds yielded the new complexes [(?5 C5Me5)Rh&{?3 (SePPh2)2CH&}]ClO4 (3) and [(?6 C6Me6)Ru&{?3 (SePPh2)2CH&}]ClO4 (4), respectively, in which the anionic methanide diselenide ligand is acting as a tripod ligand, with a C,Se,Se?-donor set. The structure of 3 has been determined by X-ray crystallography. © 1994.