

Supporting information for
Carbosilane dendrimers peripherally functionalized with *P*-stereogenic
monophosphines. Catalytic behaviour of their allyl palladium complexes in the
asymmetric hydrovinylation of styrene[†].

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NOESY ¹H-¹H cross-peaks between the isomers of compounds **Pd-3P₁** and **Pd-2P₂**.

Table 1-S. Exchange between the isomers of the **Pd-3P₁** complex. NOESY spectrum at 298 K with a mixing time of 500 ms.

Exchange cross-peaks (ppm)	Exchange mechanism
H _{syn-tP} (I) ↔ H _{syn-tP} (II) [4.44 – 4.39]	η ³ -η ¹ -η ³
H _{anti-tP} (I) ↔ H _{anti-tP} (II) [3.43 ↔ 3.19]	η ³ -η ¹ -η ³
H _{syn-cP} (II) ↔ H _{anti-cP} (I) [3.35 ↔ 2.49]	η ³ -η ¹ -η ³
H _{syn-cP} (I) ↔ H _{anti-cP} (II) [3.28 ↔ 1.90 aprox.]	η ³ -η ¹ -η ³

Table 2-S. Exchange between the isomers of the **Pd-2P₂** complex. NOESY spectrum at 298 K with a mixing time of 500 ms.

Exchange cross-peaks (ppm)	Exchange mechanism
H _{syn-tP} (I) ↔ H _{syn-tP} (II) [4.39 – 4.29]	η ³ -η ¹ -η ³
H _{anti-tP} (I) ↔ H _{anti-tP} (II) [3.42 ↔ 3.38]	η ³ -η ¹ -η ³
H _{syn-cP} (I) ↔ H _{anti-cP} (II) [3.24 ↔ 2.56]	η ³ -η ¹ -η ³
H _{syn-cP} (II) ↔ H _{anti-cP} (I) [2.70 ↔ 2.49]	η ³ -η ¹ -η ³
H _{syn-tP} (I) ↔ H _{syn-cP} (II) [4.37 aprox. ↔ 2.70]	pseudorotation
H _{syn-tP} (II) ↔ H _{syn-cP} (I) [4.30 aprox. ↔ 3.24]	pseudorotation
H _{anti-tP} (I) ↔ H _{anti-cP} (II) [3.42 ↔ 2.56]	pseudorotation
H _{anti-tP} (II) ↔ H _{anti-cP} (I) [3.38 ↔ 2.49]	pseudorotation