

Preparation of Polypeptide via Living Polymerization of Z-Lys-NCA Initiated by Platinum Complexes

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Abstract

Two novel platinum complexes, ((dppe)Pt(MBS-O) (2a) and (dppe)Pt(MBS-NH) (2b) have been synthesized and structurally characterized. Experimental results show that compound 2b is an efficient initiator toward ring opening polymerization of NCA yielding polypeptides with narrow PDIs (1.07-1.19). By comparing the activity of complexes 2a with that of 2b, the mechanism for polymerization of NCA initiated by an amido-sulfonamidate is proposed.