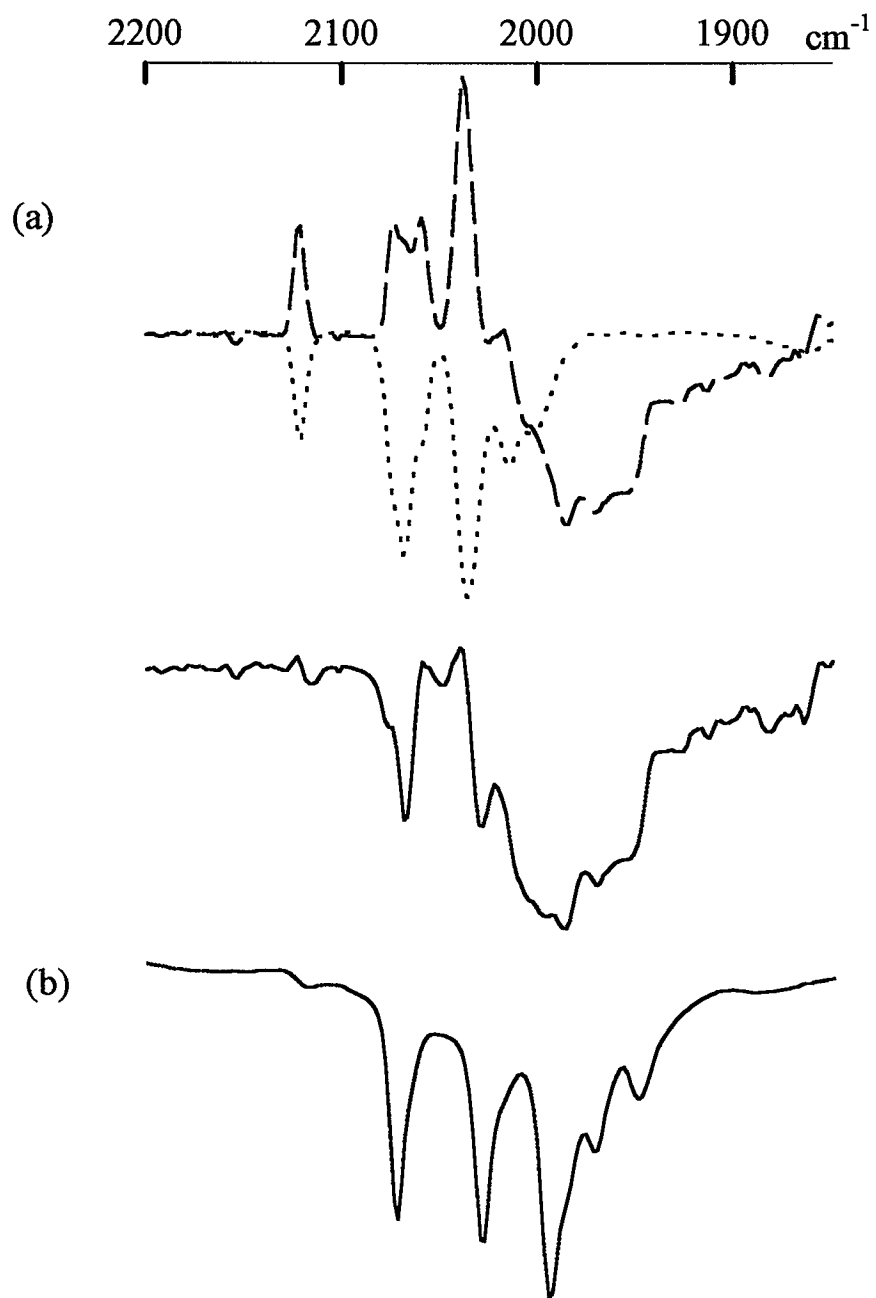


(1) Cyclic voltammetric experiment of 1

The cyclic voltammograms of 1 in a dry deoxygenated mixed solvent (0.1 M [(n-Bu)₄N]ClO₄ in dichloromethane : toluene = 4 : 1) were obtained by BAS-100B (Bioanalytical Systems, Inc.) using the conventional three electrode system of a platinum working electrode (1.6 mm diameter disk, Bioanalytical Systems, Inc.), a platinum counter wire electrode (5 cm length of 0.5 mm diameter wire), and a Ag/Ag⁺ reference electrode (0.1 M AgNO₃/Ag in acetonitrile with a VycorTM salt bridge). All the potential scales of cyclic voltammograms are referenced to the standard Fc/Fc⁺ scale by measuring the E^o_{Fc/Fc⁺} using a Ag/Ag⁺ reference electrode.

(2) IR spectroelectrochemical study of 1

The IR spectroelectrochemical study was carried out with a modified cell on a Bomem MB-100 FT-IR spectrophotometer. Platinum gauze working electrode (100 mesh, 2.5×2.5 cm²) was inserted into the thin gap (0.5 mm) between CaF₂ windows. Both reference and counter electrodes were separately dipped in two glass syringe compartments connected to the injection holes of the IR cell.



(a) (---) difference IR spectrum before and after the reduction of **1** in a mixed solvent (0.1 M $[(n\text{-Bu})_4\text{N}]\text{BF}_4$ in dichloromethane : toluene = 4 : 1). (····) IR spectrum of **1** in the same solvent. (—) IR spectrum of 1^- . (b) IR spectrum of **6** in THF.