

Supporting Information for:

“A new bipyridyl cobalt complex for reductive dechlorination of pesticides”

W. Y. He^{a,b}, J.-M. Fontmorin^{a,b}, P. Hapiot^b, I. Soutrel^a, D. Floner^b, F. Fourcade^a, A. Amrane^a,
F. Geneste^{*,b}

^a *Ecole Nationale Supérieure de Chimie de Rennes/Université de Rennes 1, CNRS, UMR 6226, 11 allée de Beaulieu, CS 50837, 35708 Rennes cedex 7, France.*

^b *Université de Rennes 1, CNRS, UMR 6226, Equipe Matière Condensée et Systèmes Electroactifs, Campus de Beaulieu, 35042 Rennes cedex, France.*

Table of Contents

¹ H NMR spectra for 7	S1
¹ H NMR spectra for 8	S2
Mass spectrometry of the electrolyzed solution and of deschloroalachlor.....	S3
Cyclic voltammetry of [Co(bpy(CH ₂ OH) ₂) ₂] ²⁺ in the presence ofalachlor.....	S4

Figure S1: ^1H NMR spectrum of **7** in CDCl_3

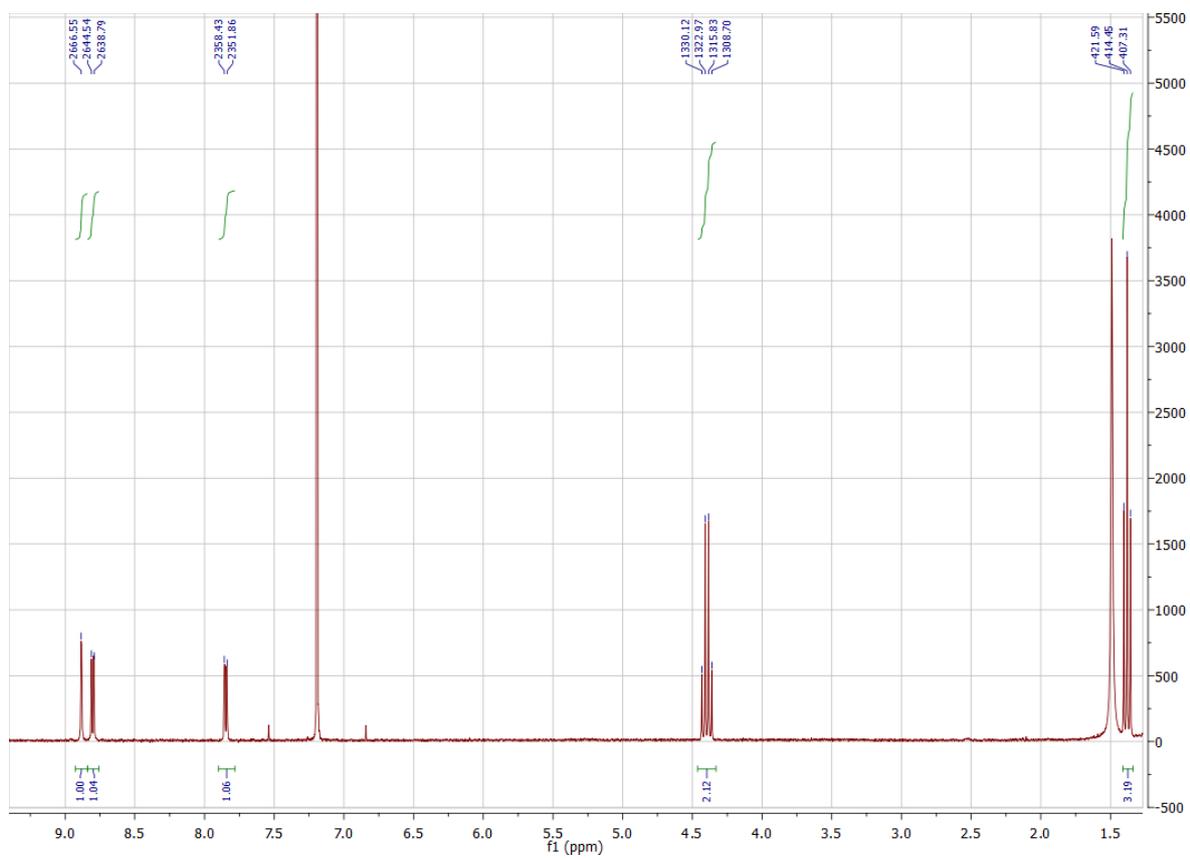


Figure S2: ^1H NMR spectrum of **8** in CD_3OD

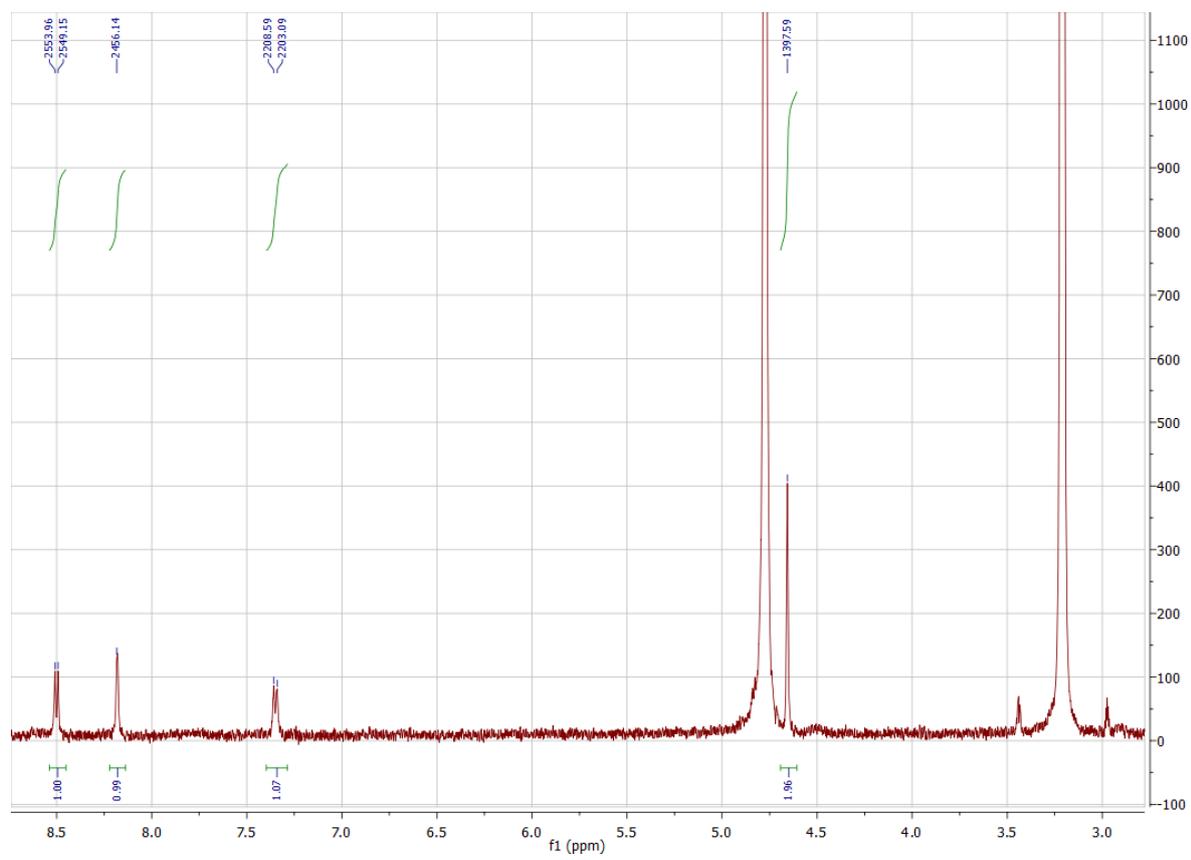


Figure S3: Mass spectrometry of the electrolyzed solution and of deschloroalachlor

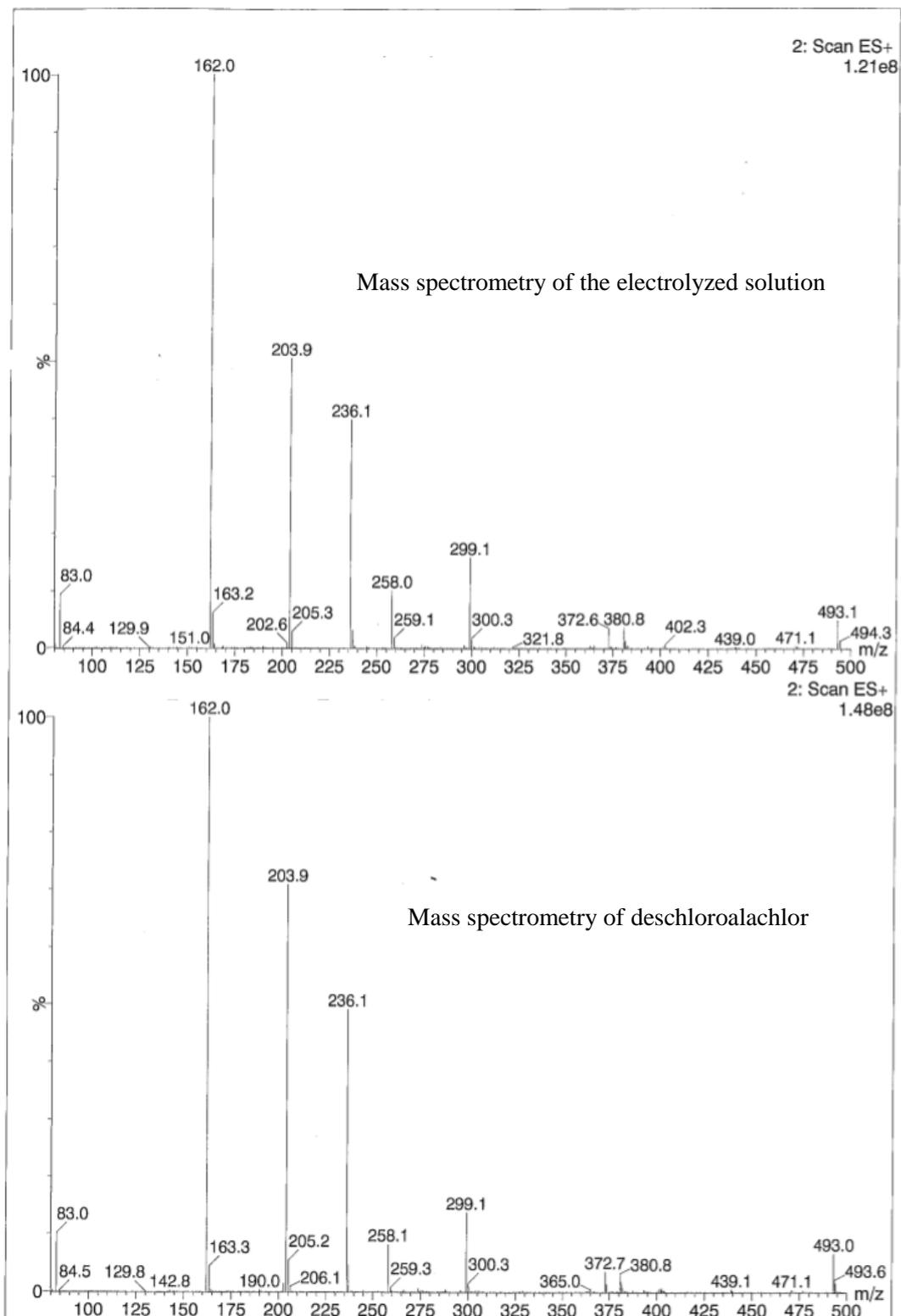
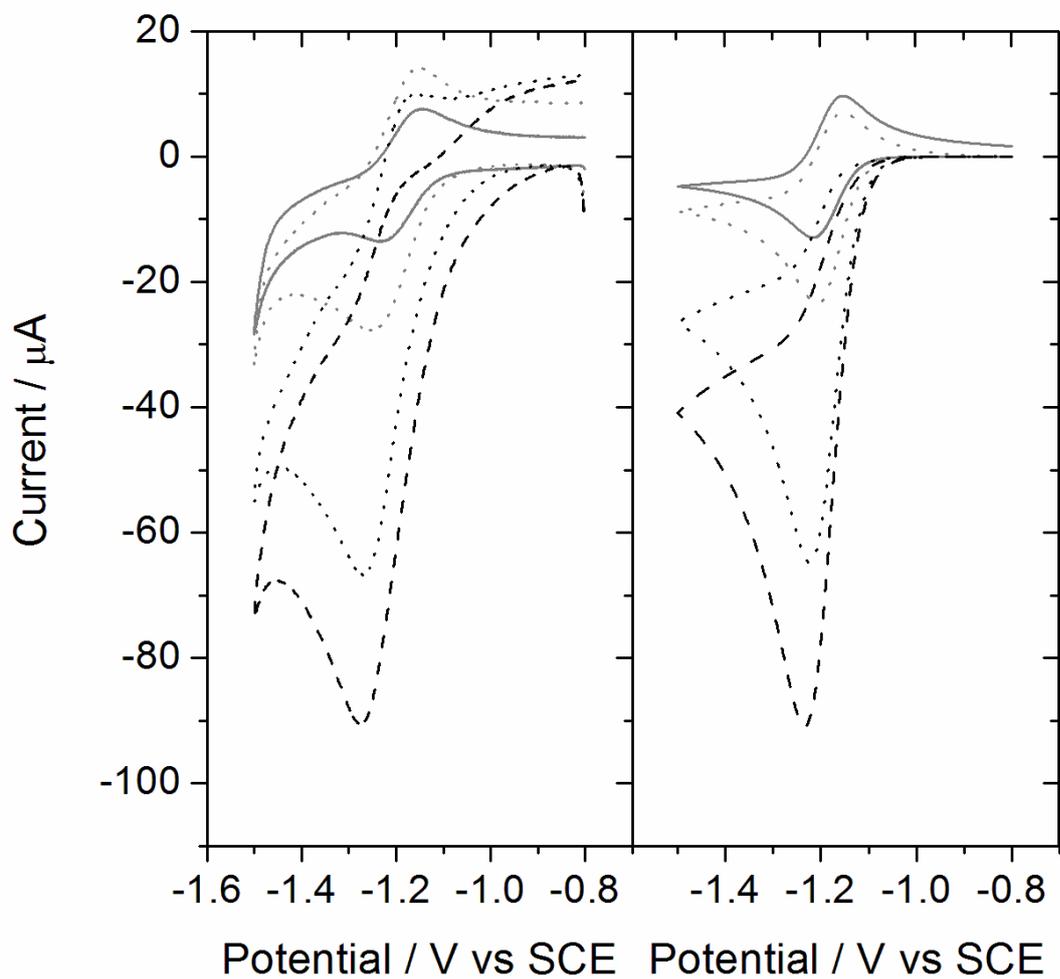


Figure S4: Cyclic voltammetry of $[\text{Co}(\text{bpy}(\text{CH}_2\text{OH})_2)_2]^{2+}$ in the presence ofalachlor



(Left) Cyclic voltammograms of $[\text{Co}(\text{bpy}(\text{CH}_2\text{OH})_2)_2]^{2+}$ complex ($1.9 \times 10^{-3} \text{ mol L}^{-1}$) in $0.1 \text{ mol L}^{-1} \text{ Na}_2\text{SO}_4 + 0.1 \text{ mol L}^{-1} \text{ HDTAB}$ before (—) and after addition of $2 \times 10^{-3} \text{ mol L}^{-1}$ (.....), $12 \times 10^{-3} \text{ mol L}^{-1}$ (.....), $20 \times 10^{-3} \text{ mol L}^{-1}$ (-----)alachlor on a 3 mm diameter glassy carbon electrode at 0.05 V s^{-1} . The background was subtracted. (Right) Simulations of voltammograms considering the second reduction step as slow with $k_2 \ll k_1 = 5000 \text{ mol}^{-1} \text{ L s}^{-1}$