

Electronic supplementary information

Selective complexation and extraction of Ag(I) and Zn(II) versus Pb(II) by polymer beads modified by attachment of a bipyridyl- calixarene-based chelate.

Yannick de Gaetano^a, Igor Clarot^a, Jean-Bernard Regnouf de Vains^{a*}

^a SRSMC, UMR 7565 Université de Lorraine, CNRS; équipe GEVSM, Faculté de Pharmacie, 5, rue Albert Lebrun, 54001 Nancy cedex, France. E-mail: jean-bernard.regnouf@pharma.uhp-nancy.fr
Fax: +33 3 83 68 23 45; Tel.: +33 3 83 68 23 15

Table of contents

Titration of ligand **2** with

AgNO₃ Figure S1

Zn(NO₃)₂ Figure S2

Pb(NO₃)₂ Figure S3

Survey of degradation of polymer **1** in acidic medium. Figure S4

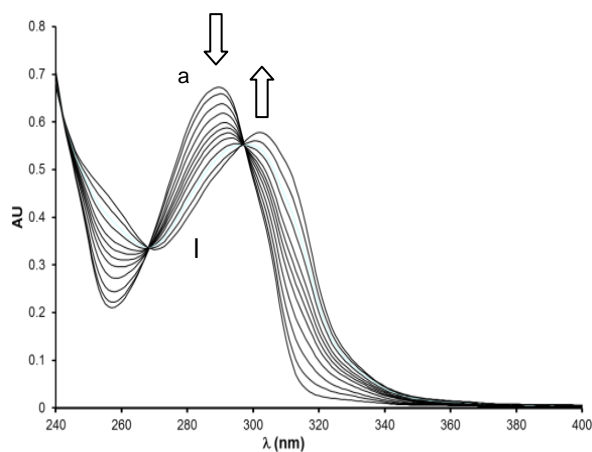


Fig. S1 UV-vis titration of **2** in CH_2Cl_2 by AgNO_3 [**2**] = $1.68 \cdot 10^{-5}$ M, $V = 2.5$ mL; [Ag(I)] = $4.0 \cdot 10^{-4}$ M in MeOH, $V_{\text{aliquot}} = 10.5 \mu\text{L}$. a) to l): **2** + 0.0 to 1.0 equiv. Ag(I) .

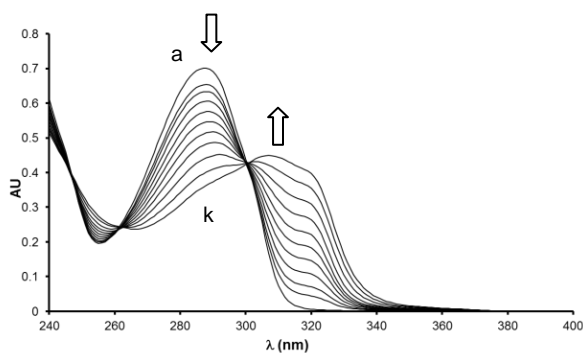


Fig. S2 UV-vis titration of **2** by $\text{Zn(NO}_3)_2$ in CH_2Cl_2 . [**2**] = $1.7 \cdot 10^{-5}$ M, $V = 2.5$ mL; [Zn(II)] = $4.4 \cdot 10^{-4}$ M, $V_{\text{aliquot}} = 9.9 \mu\text{L}$. a) to k) **2** + 0.0 to 1.0 equiv. $\text{Zn(NO}_3)_2$.

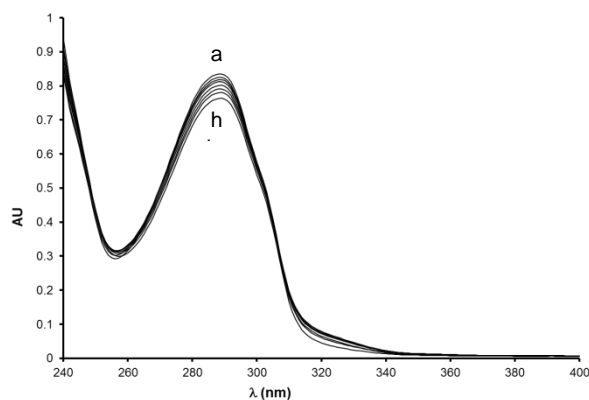


Fig. S3 UV-vis titration of **2** in CH_2Cl_2 by $\text{Pb(NO}_3)_2$. [**2**] = $2.06 \cdot 10^{-4}$ M, $V = 2.5$ mL; [Pb(II)] = $3.98 \cdot 10^{-4}$ M in MeOH, $V_{\text{aliquot}} = 13.0 \mu\text{L}$. a) to h) **2** + 0.0 to 1.0 equiv $\text{Pb(NO}_3)_2$.

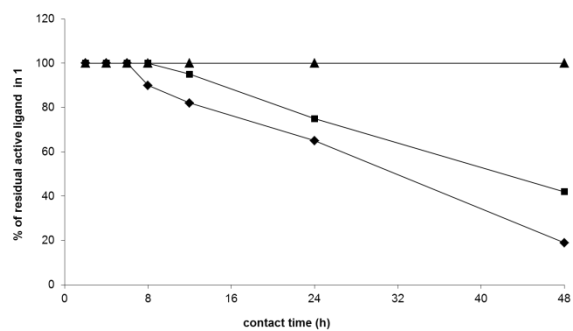


Fig. S4 Degradation kinetics of resin **1** in hydro-alcoholic HNO_3 0.1M (◆), 0.05M (■), 0.01M (▲). Survey of calixarene release by Uv-visible spectrophotometry at 318 nm.