

Universitat Politècnica de Catalunya

**Development of techniques based on
natural polymers for the recovery of
precious metals**

**Memòria presentada per optar al Grau de Doctor en
Ciències Químiques - Menció Doctor Europeu**

MONTSERRAT RUIZ PLANAS

Abril 2002

Development of Techniques Based on Natural Polymers for the Recovery of Precious Metals

Montserrat Ruiz Planas

Departament d'Enginyeria Química
Universitat Politècnica de Catalunya

Aquesta Tesi Doctoral es basa en el treball presentat en els següents articles:

- I. **Palladium Sorption on Glutaradehyde Crosslinked Chitosan**
M. Ruiz, A. M. Sastre i E. Guibal
Reactive & Functional Polymers, 45, 155-173 (2000)
- II. **Palladium Sorption on Glutaraldehyde-Crosslinked Chitosan in Fixed-Bed Systems**
M. Ruiz, A. M. Sastre, M. C. Zikan i E. Guibal
Journal of Applied Polymer Science, 81, 153-165 (2001)
- III. **Platinum and Palladium Sorption on Chitosan Derivatives**
E. Guibal, M. Ruiz, T. Vincent, A. M. Sastre i R. Navarro Mendoza
Separation Science and Technology, 36 (5 & 6), 1017-1040 (2001)
- IV. **Palladium Sorption Using Chitosan Derivatives**
M. Ruiz, A. M. Sastre, J. R. Degorce-Dumas i E. Guibal
Texts of textes des affiche posters. International Water Association (2000). ISBN: 2-9515416-0-0
- V. **Pd and Pt Recovery Using Chitosan Gel Beads. I. Influence of Drying Process on Diffusion Properties**
M. Ruiz, A. M. Sastre, E. Guibal
Separation Science and Technology (2002), en premsa
- VI. **Pd and Pt Recovery Using Chitosan Gel Beads. II. Influence of Chemical Modification on Sorption Properties**
M. Ruiz, A. M. Sastre, E. Guibal
Separation Science and Technology (2002), en premsa
- VII. **Influence of the Drying Process of Chitosan Beads on Platinum and Palladium Sorption**
M. Ruiz. A. M. Sastre i E. Guibal

Advances in Chitin Sciences, VI, (2002), en premsa

VIII. **Osmium and Iridium Sorption on Chitosan Derivatives**

M. Ruiz, A. M. Sastre i E. Guibal

Solvent Extraction Ion Exchange, sotmès per a publicació