

“VASILE ALECSANDRI” UNIVERSITY OF BACĂU, ROMANIA

ENGINEERING FACULTY

“GHEORGHE ASACHI” UNIVERSITY OF IASI, ROMANIA

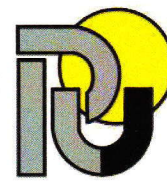
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ROMANIAN ACADEMY OF AGRICULTURAL AND FORESTRY SCIENCES “GHEORGHE IONESCU – SISESTI”

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ABSTRACTS

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Tristimulus Colorimetry (CIE XYZ and CIELAB colour space) has proved to be a useful tool for following the colour evolution of these emulsions.

H.3. COMPARATIVE ADSORPTION STUDIES OF NI (II) IONS ON MAGNETIC-CHITOSAN GRAFTED (ALKYL ACRYLATE) COMPOSITE PARTICLES

L. M. IORDACHE, G. DODI, D. HRITCU, D. DRAGANESCU, M. I. POPA

FACULTY OF CHEMICAL ENGINEERING AND ENVIRONMENTAL PROTECTION, "GHEORGHE ASACHI"
TECHNICAL UNIVERSITY OF IASI, 73, PROF. DR. DOCENT DIMITRIE MANGERON RD, 700050 IASI,
ROMANIA

impopa@ch.tuiasi.ro

The adsorption characteristic of chitosan grafted alkyl acrylate derivatives was combined with the magnetic properties of iron oxide in core-shell composite particles to produce novel magnetic adsorbent materials. Magnetite nanoparticles (Fe_3O_4) were synthesized by co-precipitating Fe^{2+} and Fe^{+3} ions in a basic solution. Modified chitosan (CS) bearing surface vinyl groups was synthesized by glycidyl methacrylate coupling in acidic aqueous solutions through an epoxide ring opening mechanism. The magnetic- chitosan grafted (alkyl acrylate) nanocomposites were prepared by radical polymerization of butyl acrylate (BA), butyl methacrylate (BMA) or hexyl acrylate (HA) and cross-linking with ethylene glycol dimethacrylate (EGDMA) onto the modified chitosan vinyl groups, using a water soluble initiator, with addition of magnetite nanoparticles in suspension.

The prepared nanoparticles were characterized by FTIR, TEM, SEM, VSM and XRD. The nanosorbents were used for the removal of Ni^{2+} ions from aqueous solutions by a batch technique. The effects of pH, initial concentration, sorbent mass, contact time and temperature on the removal process were evaluated. The experimental data were fitted using three models: Langmuir, Freundlich, and respectively Dubinin–Radushkevich isotherm. The maximum adsorption capacity for Ni^{2+} ions followed the order: $\text{Fe}_3\text{O}_4\text{-CS-BA} > \text{Fe}_3\text{O}_4\text{-CS-HA} > \text{Fe}_3\text{O}_4\text{-CS-BMA} > \text{chitosan} > \text{magnetite}$. In addition, the high stability and recovery capacity of the chitosan- magnetic nanoparticles modified with alkyl acrylate derivatives suggest that these novel magnetic nanocomposite adsorbents have potential applications for removing Ni^{2+} ions from wastewater.

H.4. ETUDES VISANT LA STABILISATION PROTEIQUE DES VINS BLANCS JEUNES

R. STURZA, E. COVACI

UNIVERSITE TECHNIQUE DE MOLDAVIE, DEPARTEMENT DE CHIMIE

sturzar@yahoo.com

Le traitement de collage à la bentonite est une étape que le vinificateur réalise sur ses vins pour éliminer les protéines en excès et les risques d'instabilité colloïdale qui leur sont associés. Bien qu'efficace, ce collage à la bentonite présente de nombreux inconvénients, tels que: la diminution de la couleur et du potentiel aromatique; les pertes non négligeables de vin (l'ordre de 5 à 10 % en volume).