# Reduction of chromate ions by glutathione tripeptide in the presence of sugar ligands.

Autorzy

M. Branca

A. Dessi

Henryk Kozłowski

Giovanni Micera

J. Świątek

Rok wydania

1990

Czasopismo

Journal of Inorganic Biochemistry

Numer woluminu

39

Strony

217-226

DOI

10.1016/0162-0134(90)84005-A

Kolekcja

Naukowa

Język

Angielski

Typ publikacji

Artykuł

Streszczenie

Polarographic and ESR data obtained for the reduction of chromate in the presence of the tripeptide glutathione (GSH) and sugars are presented. The results indicate that in the binary GSH-Cr(VI) system, glutathione binds chromate forming a thioester species which can be reduced efficiently by free tripeptide molecules. In the systems containing chromate, sugars and glutathione, chromium(VI) interacts with the sugar ligand (or with both sugar and GSH) yielding esters which are easily reduced by GSH. The formed Cr(V) ions are then stabilized by the coordination to the sugar ligands. The sugars having pairs of *cis* hydroxyl groups available for binding to metal are the most effective in the formation, first, of Cr(VI) esters and then, of Cr(V) complexes.

Adres publiczny

https://doi.org/10.1016/0162-0134(90)84005-A

Strona internetowa wydawcy

http://www.elsevier.com