

New Reagents 2,6-Diaminopyrimidines and Benzimidazoles – Perspective Luminescent Reagents for Determination of Pt and Pd

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Luminescent properties of new organic reagents, 2,6-diaminopyrimidines and benzimidazoles were investigated. The luminescence intensity of 1-amino-3-(3-hydroxypropyl)pyrido[1,2-a]benzimidazole-2,4-dicarbonitrile (I) 3-[2-(hydroxymethyl)phenyl]-1-imino-1H-pyrido[2,1-b][1,3]benzothiazole-2,4-dicarbonitrile (II) 3-[2,6-diamino-5-(1,3-benzothiazol-2-yl)-4-pyrimidinyl]-1-propanol (III) was decreased with adding hydrochloric acid. Reagent 3-[6-amino-5-(1,3-benzothiazol-2-yl)-1-methyl-2-imino-1,2-dihydro-4-pyrimidinyl]-1-propanol (IV) was resistant to HCl. The reagent IV with platinum(II) and palladium(II) forms non-luminescent complexes in acidic media. It was found that IV with Pt(II) forms a complex 1:1, Pd(II) - 1:1 and 2:1, respectively.

Keywords: luminescence, 2,6-diamanopyrimidines, benzotiazoles, platinum, palladium
