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Ru(II) arenski kompleksi sa piridinskim ligandima: sinteza i antimikrobna aktivnost

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Kompleksi metala retko se koriste kao potencijalni antimikrobni agensi. U ovom radu smo prikazali sintezu, hemijsku karakterizaciju i antimikrobnu aktivnost 14 arenskih Ru(II) kompleksa sa piridinskim ligandima. Strukturu i čistoću dobijenih jedinjenja potvrdili smo koristeći ^{1}H, ^{13}C NMR i IC spektroskopiju, MS i EA. Mikrodilucioni esej je korišćen za određivanje minimalne inhibitorne koncentracije (MIC) i minimalne baktericidne koncentracije sintetisanih jedinjenja. Streptomicin i hloramfenikol su korišćeni kao standard. Najbolja aktivnost prema ispitivanim sojevima bakterija zapažena je na soju *E. coli*, sa MIC vrednošću 1,25 mg/mL, kompleksa sa 2,4- i 2,5-piridindikarboksilnim ligandima. Svi sintetisani kompleksi pokazali su podjednako dobru aktivnost prema *C. Albicans.*

Ru(II) arene based pyridil complexes: synthesis and antimicrobial potency

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Metal-based compounds are rarely good antimicrobial compounds. Here we report synthesis, chemical characterization and antimicrobial potency of fourteen Ru(II) arene complexes with pyridine-based ligands. The structures and purity of synthesized compounds were confirmed using ^{1}H and ^{13}C NMR spectroscopy, IR spectroscopy, MS, and EA. A micro-well dilution assay was used to determine the minimum inhibitory concentration (MIC), and minimum bactericidal concentration. of evaluated compounds. Streptomycin and chloramphenicol were used as a positive control. The best activity of all tested bacteria was observed against *E. coli*, with a MIC value of 1.25 mg/mL, for complexes with 2,4- i 2,5-pyridinedicarboxylic ligands. Also, all synthesized complexes showed the same activity against *C. Albicans.*

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