

26 том. 2 секция ПОСТЕРНЫЕ ДОКЛАДЫ

BIS(ARENE)CHROMIUM 1-(1,4,7,10,13-PENTAOXACYCLOPENTADECAN-2-YL)-1-HYDROFULLERIDE

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Bis(toluene)chromium reacts with 2-(1,2-dihydrofullerenyl)-1,4,7,10,13-pentaoxacyclopentadecane (1a) in toluene at 293 K to form salt bis(toluene)chromium 1-(1,4,7,10,13-pentaoxacyclopentadecan-2-yl)-1-hydrofulleride (2a). 2a is stable at 333K. Fulleride 2a is insoluble in hexane, soluble in THF. NIR spectrum of 2a in THF at 290 K indicates absorption bands at 993, 651, 610, 540 nm typical for anion $[1a_{11}]$ -.

1a has been obtained by irradiation of C60, 15-crown-5 and benzophenone in o-dichlorobenzene with 1:10:34 molar ratio and 5 mg/ml $\rm C_{60}$ concentration using luminescent UV lamp 370 nm 10x10w in an evacuated and sealed pyrex ampoule at 323 – 328 K for 443 minutes. After solvent evaporation in vacuo, the residue was washed by hexane and acetone, dried in vacuo. Column chromatography over silica gel with PhMe: acetone (1:20) as eluent gave first unreacted $\rm C_{60}$ and then, 1a. 1a is insoluble in hexane, soluble in CHCl₃ and THF. The UV/vis spectrum of 1a in decaline at 290 K show absorption bands at 210, 256, 328, 434, 645, 711 nm typical for 1,2 $\rm C_{60}$ derivatives. All reactions were carried out under an inert atmosphere. The work was performed using the instrumental base of the Analytical Center of the G.A. Razuvaev Institute of Organometallic Chemistry, RAS and in the framework of the Russian state assignment.