Abstract

The water-soluble derivate of BODIPY was prepared, which will be further modified in order to prepare bioorthogonal bifunctional BODIPY. Target application of this derivate is fluorescent probe for labelling of biomolecules.

Main goals of this thesis were optimalization of synthesis of BODIPY core and sulfonation to positions 2,6. It was found out that sodium salt of sulfonated BODIPY shows good solublility in water and methanol, but it is poorly soluble in less polar solvents. Based on these findings DIPEA salt of sulfonated BODIPY was prepared, which shows outstanding range of solubility from water to dichlormethane. These findings will be used for synthesis of bifunctional water-soluble BODIPY. Further, the potential of Pd-BODIPY complex for detection of CO was reasserted which will be further investigated.

Keywords BODIPY, bifunctional, water-soluble, fluorescent probe, fluorescence, protein labelling, solubilization