

Abstract

New tricyanovinyl- derivatives 1 of 1-(alkyl)aryl-2-(2'-thienyl)pyrroles 2 have been synthesized and characterized. Compounds 1 display dramatic reductions in both their optical and electrochemical band gaps in comparison to thienylpyrroles 2. The solvatochromic behavior of tricyanovinyl- derivatives 1 was investigated in a variety of solvents. In agreement with the solvatochromic and the electrochemical studies for push-pull derivatives I the new compounds prepared, can find application for manufacturing new materials with notable non-linear optical properties.