Zur Reaktion von 2,4-Dioxo-4-ferrocenyl-butansäureethylester mit primären aromatischen Aminen

On the Reaction of Ethyl 2,4-Dioxo-4-ferrocenyl-butanoate with Primary Aromatic Amines

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Prof. Dr. Dirk Walther zum 60. Geburtstag gewidmet

Z. Naturforsch. **54 b,** 849–857 (1999); eingegangen am 12. März 1999

Ferrocene, β-Diketones, Enaminoketones, NMR Data, Crystal Structure

Starting from ethyl 2,4-dioxo-4-ferrocenyl-butanoate (**1**) a series of new ferrocene derivatives has been prepared. While the reaction with *o*-phenylene diamine leads to two ferrocene-containing heterocyclic compounds, 4-ferrocenyl-3*H*-1,5-benzodiazepine-2-carbonic acid ethyl ester (**3**) and 3-(2-ferrocenyl-2-oxo-ethylidene)-3,4-dihydro-1*H*-quinoxalin-2-one · H_2O (**4**), reactions with *m*- and *p*-phenylene diamine give both the mono- and disubstituted products **5** - **8**, respectively. The conversion of **4** by Lawesson's reagent results in 2-ferrocenyl-thieno[2,3-*b*]quinoxaline (**9**). The new compounds have been characterized by their ^{1}H, ^{13}C NMR, and mass spectra. The molecular structures of 4-ferrocenyl-4-oxo-2-phenylamino-but-2-enoic acid ethyl ester **2**, and of **4** and **9** have been determined by X-ray crystal structure analysis.