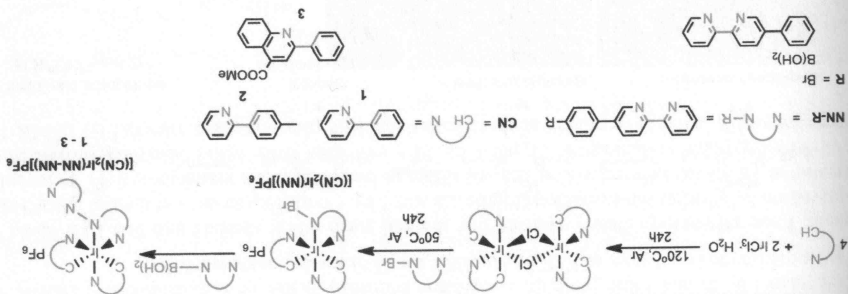


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All of compounds obtained have been characterized by NMR, IR spectroscopy and mass-spectrometry. Single crystal X-Ray analysis provides a support that one of the bipyridyl functions remains free to further coordination of the second heterometal centre.

Suzuki coupling between NN-B(OH)_2 and $[(\text{CN})_2\text{Ir}(\text{NN-Br})]\text{PF}_6$ results in prolongation of NN ligand with NN-NN ditopic ligand formation.

Figure 1. Synthesis of 1-3 complexes.



Herein we report using NN-Br and NN-B(OH)_2 compounds to synthesize a series of novel Ir(III) complexes with general formulae $[(\text{CN})_2\text{Ir}(\text{NN-Br})]\text{PF}_6$ and $[(\text{CN})_2\text{Ir}(\text{NN-NN})]\text{PF}_6$ (Fig. 1).

One of the most intensive developing fields in coordination chemistry is searching of compounds which are able to demonstrate multiply emission. For example, this effect is possible because of the presence of two independent metal centres with different luminescence in one molecule connected by ditopic ligand.

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Novel cyclometated Ir(III) complexes as blocks for dual emissive material: synthesis and photophysical properties

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metal centres present in the
 mistry, which will allow us to
 a new range of magnetic
 or Cu). Herein we show the
 ditopic donor towards a "naked"
 1-(4-pyridyl)butane-1,3-dione),
 of a new series of cubes
 paramagnetic building block
 ted the synthetic strategy and
 never attempted. Our previous
 igned properties through host-
 rarely been reported,² with
 in paramagnetic coordination
 magnetic interactions between
 reactive molecules, and
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