Printing of organic light-emitting diodes (OLEDs) based on small molecule emitters

Motivation
The field of printed electronics covers various new applications like large-area printed OLEDs, organic solar cells, flexible displays based on printed organic field effect transistors as well as printed batteries. In the leading-edge cluster „Forum Organic Electronics“, partners from companies and academia like Merck, BASF, Heidelberger Druckmaschinen, University Heidelberg, TU-Darmstadt and the KIT carry on research on these breakthrough technologies.

Tasks
In the framework of this thesis, OLEDs based on small molecule emitters will be prepared by means of common printing techniques. In this context, the printing of the active layer will have priority. The work will focus on gravure printing, if necessary inkjet printing will be used additionally.

Prerequisites
Enthusiasm for research with emphasis on physics and organic electronics. Knowledge in the field of the preparation of organic thin film devices is desirable.