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Title:	In situ co-crystallization of cresols with aniline and fluoroanilines: subtle interplay of strong and weak hydrogen bonds
Authors:	Choudhury, A.R. (/jspui/browse?type=author&value=Choudhury%2C+A.R.)
Keywords:	Cocrystals Crystal engineering Hydrogen bond In situ crystallization Weak interaction
Issue Date:	2014
Publisher:	Walter de Gruyter GmbH
Citation:	Zeitschrift fur Kristallographie - Crystalline Materials, 229(9), pp.625-634.
Abstract:	"In situ crystallization" is a technique, which is used to crystallize the materials, which are liquid at ambient conditions, on the single crystal X-ray diffractometer. This technique has been utilized to study crystal structures of a number of liquids, gases and mixtures of liquids and gases in the past. In this manuscript, we describe the formation of cocrystals of a few cresols with aniline and fluoroanilines using this technique. Different pairs of cresol and aniline/fluoroaniline resulted into various cocrystals, which display different crystalline motifs involving strong O'H•••N, N'H•••O hydrogen bonds along with weak C'H•••O and C'H•••F hydrogen bonds. The observed differences in crystal packing indicate that the role of weak hydrogen bonds in these systems is significant and need to be considered.
Description:	Only IISERM authors are available in the record.
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