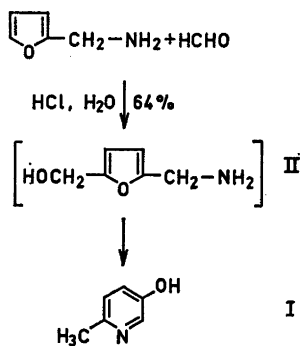


A New Synthesis of 6-Methyl-3-pyridinol

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6-Methyl-3-pyridinol (I) has been prepared by interaction of furfurylamine and formaldehyde in acid aqueous solution (yield 64 %). Since it is known that 2-aminomethyl-5-hydroxymethyl-furan (II) under similar reaction conditions is transformed into I (yield 88 %) ¹ it is reasonable to assume that II, or its equivalent, is an intermediate in the formation of I from furfurylamine and formaldehyde.



Experimental. Furfurylamine (97 g, 1.00 mole), and then 37 % formaldehyde solution (100 g, 1.23 mole) are added to a mixture of concentrated hydrochloric acid (230 ml) and water (325 ml) in such a way that the temperature does not exceed 0°. 3 N Hydrochloric acid (100 ml) is heated under reflux in a 1 liter flask fitted with a stirrer. The above solution of furfurylamine hydrochloride, formaldehyde and hydrochloric acid is added dropwise into this flask (4 h). During addition the reaction mixture is kept under gentle reflux, while the addend is kept below 0°. The reaction is complete, when all has been added. The mixture is cooled to about 80° and brought to pH 7.5–8.0 by cautious addition of sodium hydroxide pellets (about 110 g). The reaction product, which separates in a crude form on neutralization, may be isolated pure by continuous extraction with ether. The yield is about 70 g (64 %) of analytically pure product

melting at 168–170° (Hershberg app., corr.) (Ref. 1 m.p. 169–171°).

1. Elming, N. and Clauson-Kaas, N. *Acta Chem. Scand.* **10** (1956) 1603.

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The Crystal Structure of IrAl₃

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In the course of phase analysis and crystal structure studies on the iridium-aluminium system a phase with the composition IrAl₃ has been studied.

A sample of IrAl₃ was prepared by arc-melting a mixture of iridium powder (L. Light & Co; about 99.98 %) and aluminium (E. Merck AG, at least 99.99 %) in

Table 1. The Guinier powder pattern of IrAl₃ (CuKα₁ radiation).

<i>hkl</i>	<i>sin</i> ² <i>θ</i> _{obs}	<i>sin</i> ² <i>θ</i> _{calc}	<i>I</i> _{obs}	<i>I</i> _{calc}
002	0.03946	0.03945	st	72.3
100	0.04389	0.04387	st	52.3
101	0.05370	0.05374	vst	160.9
102	0.08325	0.08332	w	9.5
110	0.13161	0.13162	st	96.5
103	0.13258	0.13263	vst	131.2
004	0.15774	0.15779	vw	15.3
112	0.17115	0.17109	st	61.4
200	0.17555	0.17549	vw	8.2
201	0.18528	0.18535	m	34.0
104	0.20164	0.20167	vvw	5.7
202	0.21491	0.21494	vvw	3.1
203	0.26428	0.26425	m	54.4
114	0.28931	0.28941	m	46.1
105	0.29039	0.29042	vw	15.8
210	0.30700	0.30711	vw	9.2
211	0.31692	0.31697	m	41.4
204	—	0.33328	vvw	3.7
212	—	0.34656	vvw	4.4
006	0.35517	0.35503	w	11.8