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1,2-Ethylene-bis(p-N^2-phenylene-N^1,N^1-dimethylformamidine)

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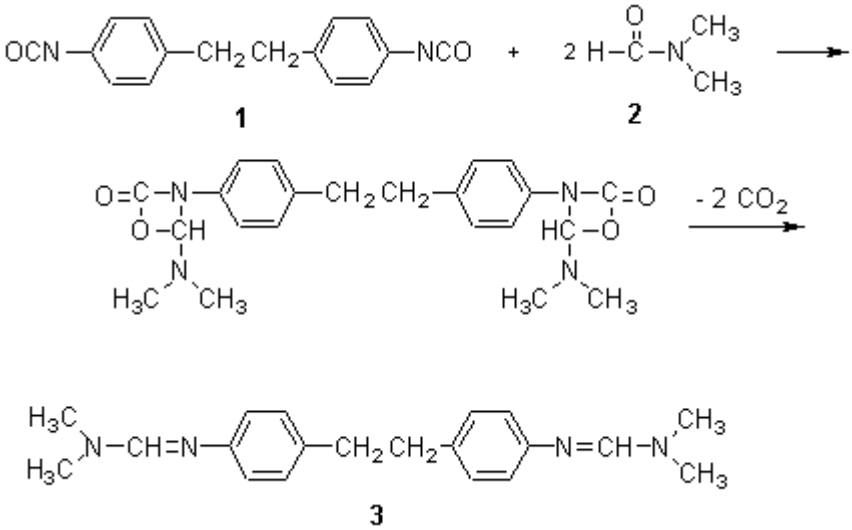

A mixture of 4.28 mmol (1.1328 g) bibenzil-4,4-di-yl-diisocyanate (**1**) [1] and 84 mmol (6.14 g) of redistilled N,N-dimethylformamide (**2**) was refluxed under stirring using a magnetically stirring-bar for 12 h, with complete absorption for any carbon dioxide in aqueous potassium hydroxide solution [2]. The major portion of the unchanged **2** was removed by vacuum distillation. After cooling the residue is triturated with diethyl ether. The precipitated solid is recrystallized from ethanol to afford 1.22 g (90 %) of **3**.

M.p. : 182 - 183°C.

IR (cm^{-1}): 1640; 1610 (C=N); 1510; 1500; 1370 (C-N); 840.

^{1}H NMR ($CDCl_3$): 7.5 (s, 2H, -CH=N); 6.95 (d, 4H, H_{Ar}, ortho to N=); 6.90 (d, 4H, H_{Ar}, ortho to $-CH_2-CH_2-$); 3.08 (s, 12 H, $-CH_3$); 2.88 (s, 4H, $>CH_2$).

Anal. calc. For $C_{20}H_{26}N_4$ (322.457): C 74.50, H 8.13, N 17.37; Found: C 74.40, H 8.12, N 17.48.

References

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2. Weiner, M.L. *J. Org. Chem,* **1960**, *25*, 2245.

Sample availability: available from the authors and MDPI.