

## ONE-STEP PORPHYRIN SYNTHESIS BY USE OF SCHIFF BASES

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We found that 2-aminomethylpyrrole derivatives (II) could be prepared in good yields (90-50%) by treating pyrrole with N-propyl or N-butyl-substituted imines R-CH=N-Pr(Bu), (I) (R= Me, Et, i-Pr) in the presence of acid catalyses.

On treatment with an appropriate acid in chloroform, (II) afforded meso-tetra-substituted porphins in 20-10 % yields. Acetic acid, propionic acid, and methoxyacetic acid were found to be effective as the catalyst. Employment of methoxyacetic acid in chloroform usually gave meso-tetrasubstituted porphins in higher yields than under other reaction conditions investigated. For example, 2-(1-n-propylaminoethyl)pyrrole (II a) afforded meso-tetramethylporphin in 20 % yield on a treatment with 20 equimolar amount of methoxyacetic acid in chloroform at room temperature for 7 days.

Furthermore, in one stage we could prepare meso-tetrasubstituted porphins by treating pyrrole with the corresponding Schiff base in acetic acid at room temperature without isolations of the intermediate, 2-aminomethylpyrrole derivatives (II).

