

**DETERMINATION OF ROUTE SPECIFIC MARKERS FOR THE *WACKER*
OXIDATION OF SAFROLE TO 3,4-METHYLENEDIOXYPHENYL-2-
PROPANONE**

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The prospecting for synthesis impurities in illicitly produced drugs is one of the mainstays of forensic chemistry. The dimethyl acetal of 3-(1,3-benzodioxole)-propanal is formed during the *Wacker* oxidation of safrole to 3,4-methylenedioxyphenyl-2-propanone (MDP2P) when methanol is used as the solvent¹. The above mentioned compound along with others are presented as new forensic marker compounds for the *para*-benzoquinone mediated *Wacker* oxidation of safrole to MDP2P.

Moreover, the applicability of these new forensic markers will be demonstrated by their retrieval and analysis using both GC/MS and SPME/GC/MS from clandestinely manufactured MDP2P and 3,4-methylenedioxymethamphetamine (MDMA or ecstasy).

References

1. Clement, W. H. and Selwitz, C. M., *J. Org. Chem.*, **29**, 241, (1964).