Alternative syntheses of bromo-dragonFLY

Melissa L. Barnier¹, Sarah L. Cresswell², Urs D. Wermuth³, Mark J. Coster⁴

¹ Eskitis Institute for Cell and Molecular Therapies, Eskitis 2 Building (N75), Griffith University, Brisbane Innovation park, Don Young Road, Nathan, Queensland
² School of Biomolecular and Physical Science, Griffith University, Nathan Campus, Nathan, Queensland
³ Forensic Chemistry, Queensland Health Forensic and Scientific Services, 39 Kessels Road, Coopers Plains, Queensland

Drug abuse in Australia has shifted from widespread opiate use towards the use of amphetamine-type stimulants (ATS), such as amphetamine ['speed'], methamphetamine [MA, 'ice'], and 3,4-methylenedioxyamphetamine [MDMA, 'ecstasy']. ATS are the second most commonly used illicit drugs in Australia, behind cannabis, and these drugs are strongly established on the global illicit drug market.¹

Recent designer amphetamines have been in the spotlight, receiving significant attention on online drug-use forums, suggesting that these drugs may soon become a problem in Australia.² The most potent hallucinogenic amphetamine analogue synthesised to date is the bromo-substituted benzodifuran, 2-amino-1-[8-bromobenzol[1,2-b:4,5-b']difuran-4-yl]propane, known as 'bromo-dragonFLY' due to its molecular configuration.³

The reported syntheses for this drug surpass the capabilities of clandestine drug laboratories and clandestine chemists. This research project aims to pre-empt prospective clandestine synthesis, allowing the potential monitoring and/or restriction of the necessary precursor chemicals to prevent the illicit synthesis of bromo-dragonFLY.

Amphetamine ('speed')  Methamphetamine (MA: 'ice')  Bromo-dragonFLY