

## Alternative syntheses of bromo-dragonFLY



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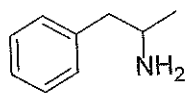
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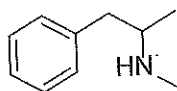
Drug abuse in Australia has shifted from widespread opiate use towards the use of amphetamine-type stimulants (ATS), such as amphetamine ('speed'), methamphetamine (MA, 'ice'), and 3,4-methylenedioxymethamphetamine (MDMA, 'ecstasy').<sup>1</sup> ATS are the second most commonly used illicit drugs in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

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.<sup>2</sup> The most potent hallucinogenic amphetamine analogue synthesised to date is the bromo-substituted benzodifuran; 2-amino-1-(8-bromobenzo[1,2-b:4,5-b']difuran-4-yl)propane, known as 'bromo-dragonFLY' due to its molecular configuration.<sup>3</sup>

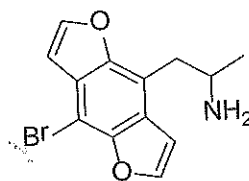
The reported syntheses for this drug surpass the capabilities of clandestine drug laboratories and clandestine chemists. This research project aims to pre-empt prospective clandestine synthesis, allowing the potential monitoring and/or restriction of the necessary precursor chemicals to prevent the illicit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



**Amphetamine ("Speed")**



**Methamphetamine (MA, "ice")**



**Bromo-dragonFLY**

1. Australian Crime Commission, Illicit Drug Data Report 2009-10.
2. (a) Bluelight. <http://www.bluelight.ru/vb/home.php> [accessed 9th January 2012]; (b) Chemistry Archive. <http://www.chemid.org/archive/rhodium/chemistry/index.html> [accessed 4th January 2012].
3. McLean, T. H.; Parrish, J. C.; Braden, M. R.; Marona-Lewicka, D.; Gallardo-Godoy, A.; Nichols, D. E., 1-Aminomethylbenzocycloalkanes: Conformationally Restricted Hallucinogenic Phenethylamine Analogues as Functionally Selective 5-HT<sub>2A</sub> Receptor Agonists. *J. Med. Chem.* 2006, 49 (19), 5794-5803.