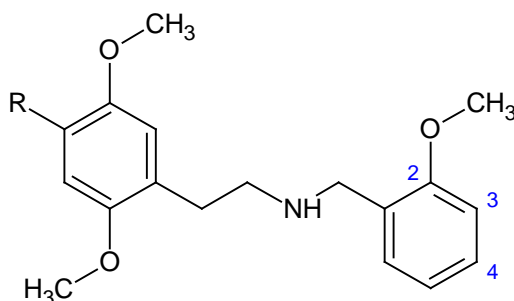


Analysis of N-BOMe compounds by GC-IR

A recent Microgram Journal paper by Casale and Hays at the US Department of Justice Drug Enforcement Administration (Volume 9, Number 2) reported the synthesis, characterization, and differentiation of 11 commonly encountered 2' N-BOMe derivatives from their 3' and 4' methoxy-benzyl isomers via mass spectrometry and infrared spectroscopy. The differentiation of the ring positional isomers is readily accomplished in the Infrared spectra.

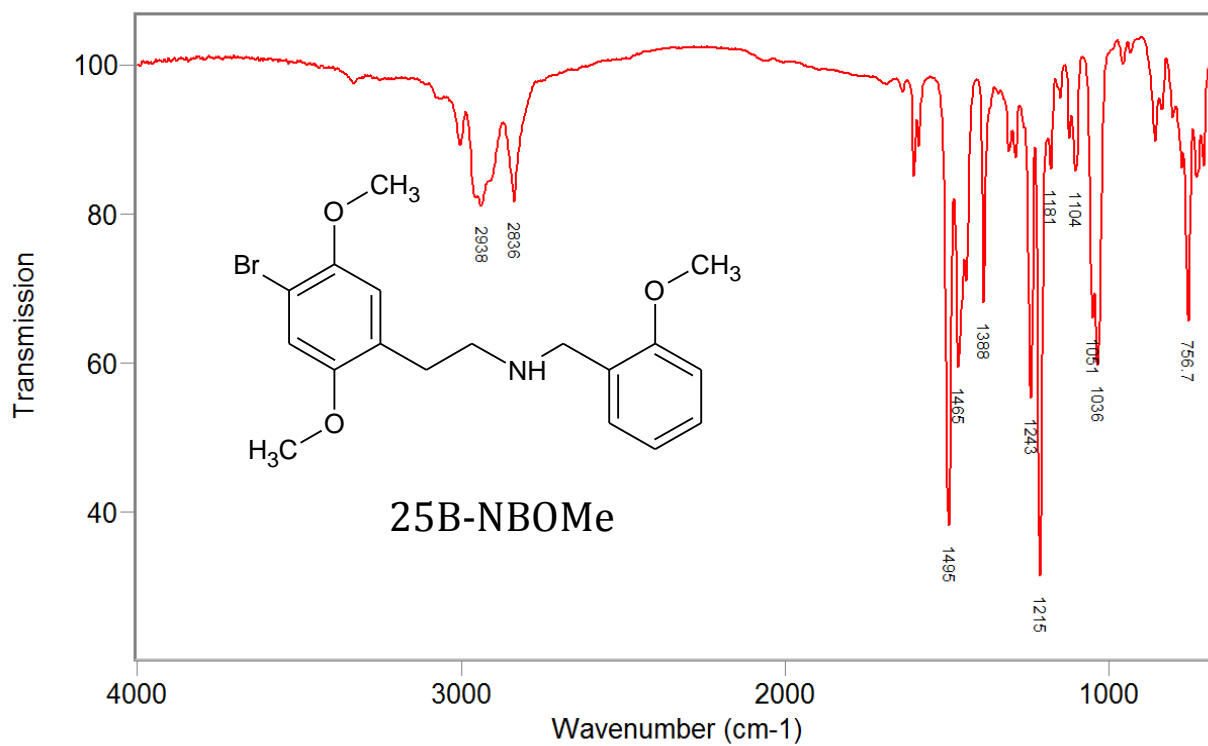
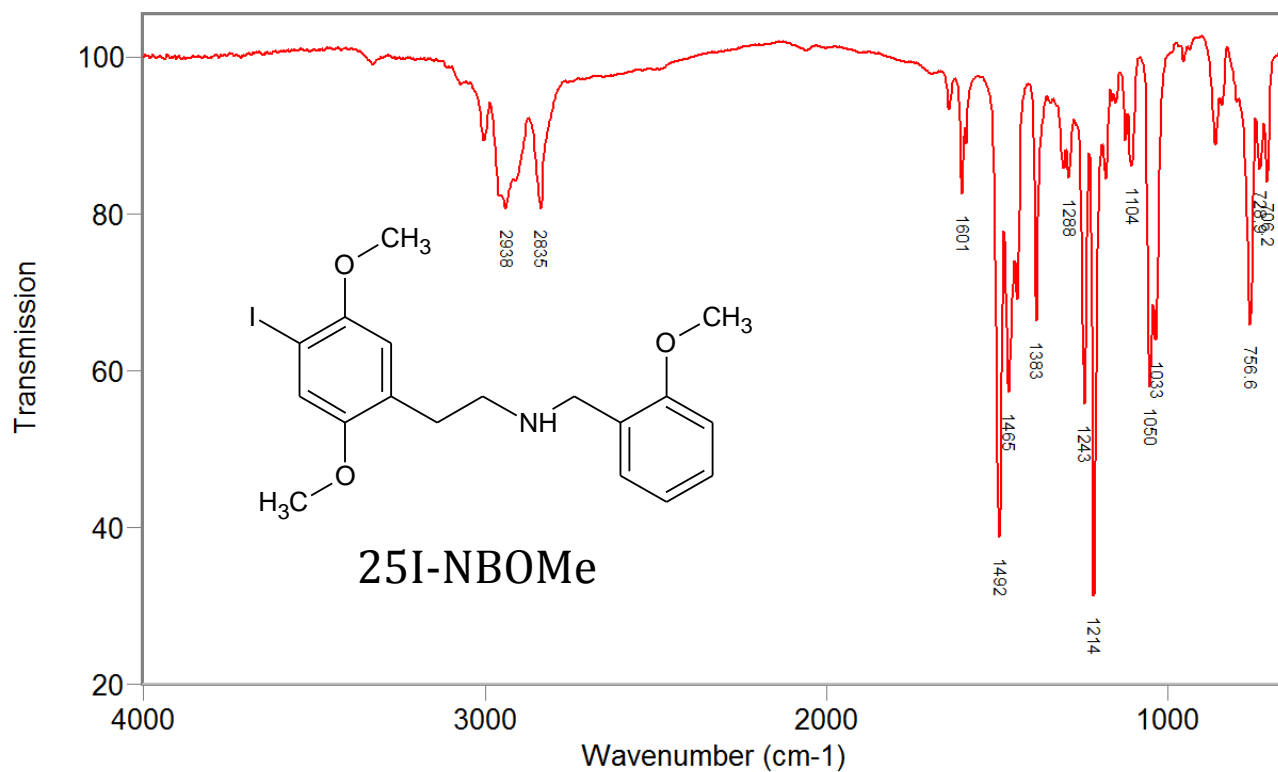


Basic Structure of an N-BOMe

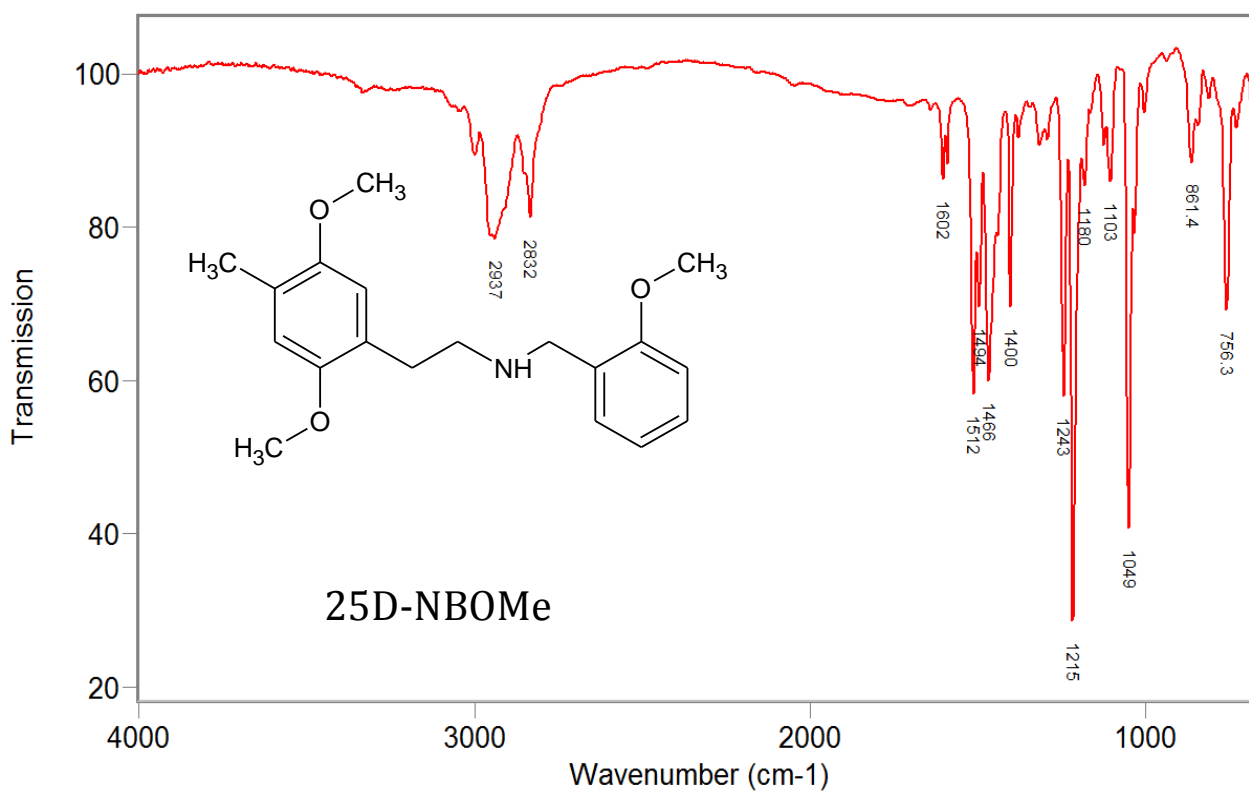
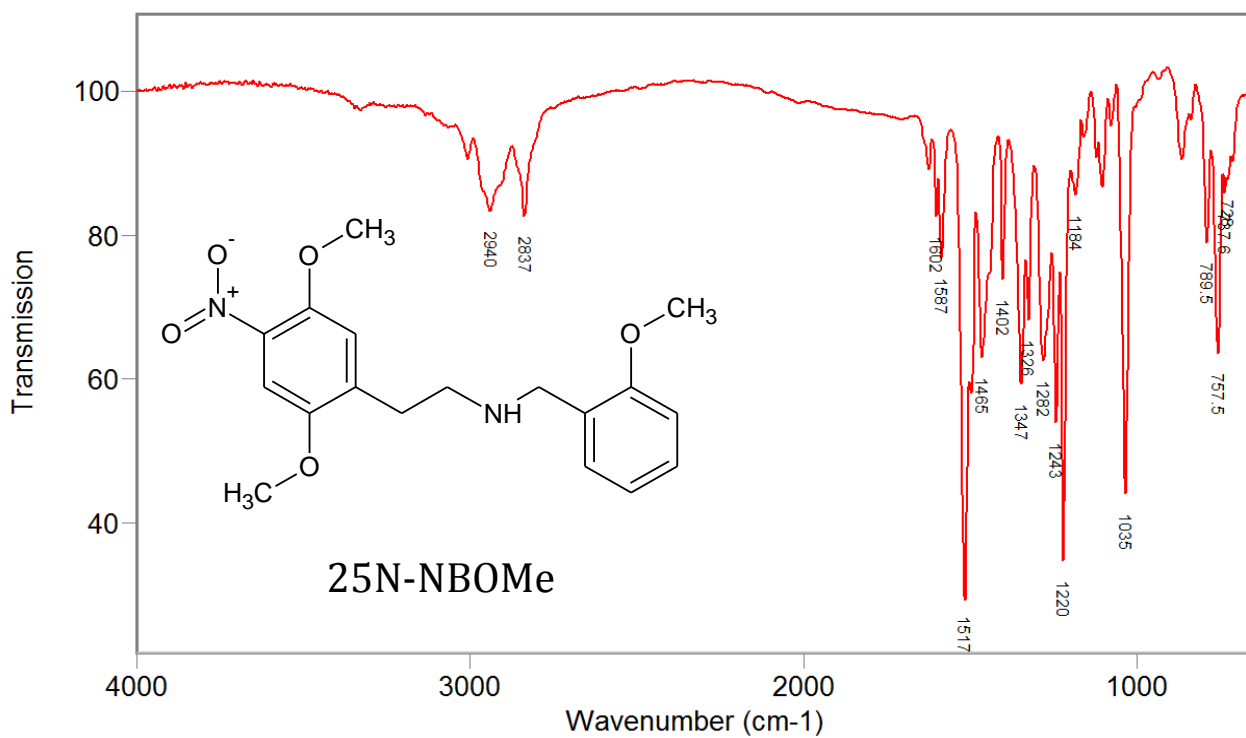
In this application note we compare the infrared spectra acquired of the available standards of the 2' methoxy benzyl compounds where the R group in the structure above is I, Br, Nitro, or Methyl. The free base form of the compound 25I-NBOMe (also called 2CI-NBOMe) is a colorless oil while the hydrochloride salt is a crystalline white power. The N-BOMe compounds are highly potent, with dosage typically in the microgram range. Distribution on tabs of blotter paper has been observed (similar to LSD cases). The low dosage may require microgram sensitivity for detection with casework samples. The DiscoverIR-GC[®] system provides high quality Infrared spectra from nanograms of sample.

Name	R Group
25I-NBOMe	Iodo, I
25B-NBOMe	Bromo, Br
25N-NBOMe	Nitro, NO ₂
25D-NBOMe	Methyl, CH ₃

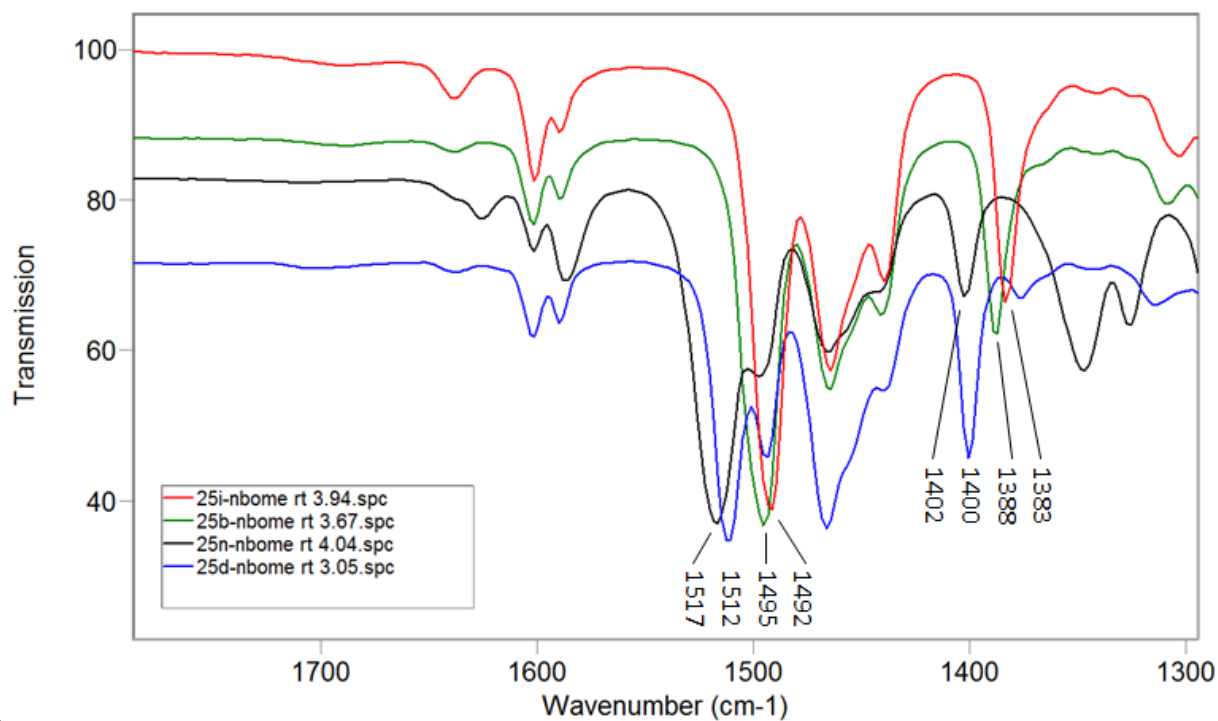
DiscovIR-GC[®] Infrared Spectra



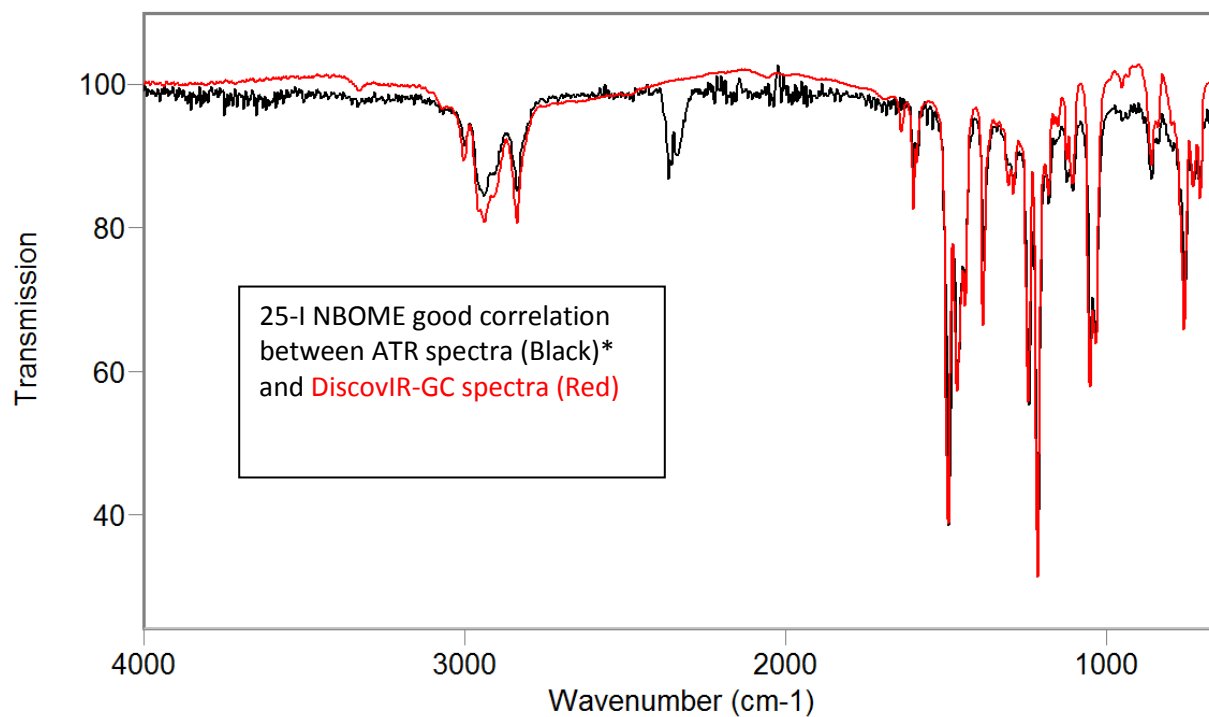
DiscovIR-GC[®] Infrared Spectra



DiscovIR-GC[®] Overlay of I, B, N, & D NBOMe's



I



*25-I NBOME ATR Spectra Courtesy of Landeskriminalamt, Germany

Top 5 Reasons to buy a DiscovIR-GC

1. Spectral Resolution
2. Sensitivity
3. Compatible with existing solid phase IR libraries
4. Compatible with existing GC-MS columns and methods

DiscovIR-GC [®] Specifications	
Infrared Spectrum Range	4000-650 cm⁻¹
Resolution	4 cm⁻¹
Spectrum Type	Transmittance
ZnSe Sample Disc Capacity	40 hours