

Application Report 299

Analysis of Tricyclic Antidepressants Using Ascentis™ C8

This application demonstrates the suitability of the Ascentis C8 for the analysis of eight tricyclic antidepressants. Structures along with the optimized chromatogram obtained on the Ascentis C8 are presented.

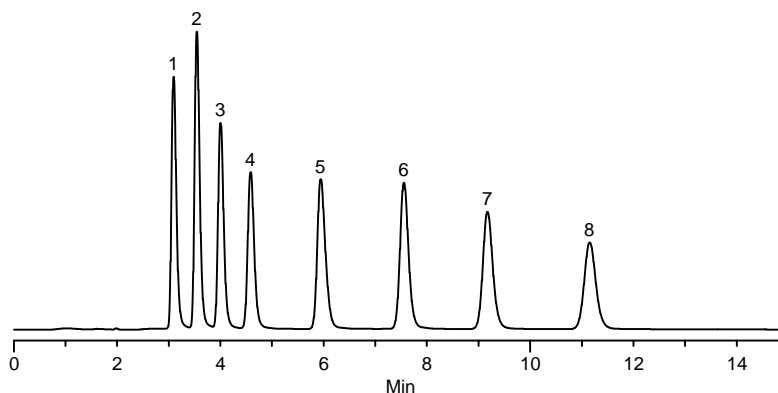
Key Words

nordoxepin, 2887-91-4, N0392, desipramine, 58-28-6, D9786, nortriptyline, 894-71-3, N7261, doxepin, 1229-29-4, D4526, norclomipramine, 303-48-0, N1280, imipramine, 113-52-0, I2638, amitriptyline, 549-18-8, A8404, clomipramine, 17321-77-6, C7291, Ascentis C8, 581402-U

Author: Hugh M. Cramer

Acquisition System: Shimadzu
Barkaboom Mountain

Notebook Reference: 1558



G003156

Conditions

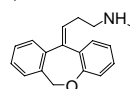
column: Ascentis C8, 15 cm x 2.1 mm I.D., 3 µm particles (581402-U)
mobile phase: 25:75, 25 mM ammonium phosphate dibasic (pH 7.0 with phosphoric acid):methanol
flow rate: 0.2 mL/min.
temp.: 35 °C
det.: UV at 254 nm
injection: 10 µL
sample: as indicated in 60:40 water:methanol

Peak IDs

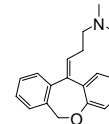
- | | |
|-------------------------------|-----------------------------|
| 1. Nordoxepin (50 µg/mL) | 5. Doxepin (50 µg/mL) |
| 2. Desipramine (50 µg/mL) | 6. Imipramine (50 µg/mL) |
| 3. Nortriptyline (50 µg/mL) | 7. Amitriptyline (50 µg/mL) |
| 4. Norclomipramine (50 µg/mL) | 8. Clomipramine (50 µg/mL) |

Structures

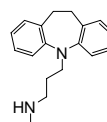
Nordoxepin - G002706



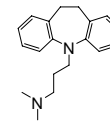
Doxepin - G002705



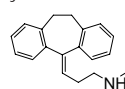
Desipramine - G002931



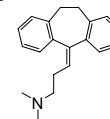
Imipramine - G002930



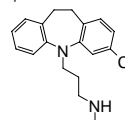
Nortriptyline - G002933



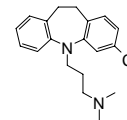
Amitriptyline - G002932



Norclomipramine - G002668



Clomipramine - G002667



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