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DOI: 10.2174/1874844901704010003

High Performance Liquid Chromatography (HPLC) Stability Indicating Method for the Determination of Bromazepam *Via* its Copper (II) Chelates

Assefa Takele[1], Abdel-Maaboud I. Mohamed Attaya[2], Ariaya Hymete[3] and Melisew Tadele Alula[4,5,*]

[1]*Department of Chemistry & Pharmacy; Faculty of Science and Technology, University of Algarve, Faro, Portugal*
[2]*Department of Pharmaceutical Analytical Chemistry, Faculty of Pharmacy, Assiut University, Assiut, Egypt*
[3]*Department of Pharmaceutical Chemistry, School of Pharmacy, Addis Ababa University, Addis Ababa, Ethiopia*
[4]*Department of Chemical and Forensic Sciences; College of Science, Botswana International University of Science and Technology, Palapye, Botswana*
[5]*Department of Chemistry; College of Science; Bahir Dar University, Bahir Dar, Ethiopia*

Table 1. Linear regression data for the calibration plot (n = 3) .

Linearity range (µg/mL)	20 – 50
Regression equation	Y = 1080.4x – 1186.1
Determination coefficient (r^2)	0.9953
Correlation coefficient (r)	0.9976
Slope (a) ± SD	1080.41 ± 33.27
Intercept (b) ± SD	-1186.15 ± 1211.13
Limit of detection (LOD, µg/mL)	3.36
Limit of quantitation (LOQ, µg/mL)	11.21

Table 2. Intra- and inter-day HPLC peak height for bromazepam chelated with copper (II) showing precision.

Concentration (µg/mL)	Intra-day precision (n=5)			Inter-day precision (n=3)		
	Mean peak area	SD	RSD %	Mean peak area	SD	RSD %
25	24783.4	519.66	2.10	24698.67	645.03	2.61
35	35955	510.78	1.42	36070.55	271.83	0.75
45	47348.6	250.95	0.53	47495.44	196.34	0.41

1874-8449/17 2017 Bentham Open

Table 3. Accuracy determination based on recovery study.

Sample	Amount of sample taken (µg/mL)	Added amount (µg/mL)	Final concentration (µg/mL)	Concentration found (µg/mL)	Recovery (%)
Lexotanil (6 mg)	20	5	25	23.57	94.28
	20	15	35	34.91	99.74
	20	25	45	43.95	97.67