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Spectrophotometric Determination of Zidovudine-Loaded Microemulsion and Application in Assay of *In Vitro* Release Kinetics

Andre L.M.CARVALHO [1,4]*, Clemilton P.CUNHA [1], Emison T.L. CRUZ [1],
José A.da SILVA [2], Ana A.M. LIRA [3] & Davi. P.de SANTANA [4]

[1] *Departamento de Bioquímica e Farmacologia, Campus Ministro Petrônio Portela s/n, Ininga, CEP 64049-550, Teresina, Piauí, Brasil.*
[2] *Programa de Pós-Graduação em Ciências Farmacêuticas (PPGCF), Campus Universitário, Rua Juvêncio Arruda s/n, Bodocongó , CEP 58100-001, Campina Grande, Paraíba, Brasil.*
[3] *Departamento de Fisiologia, Curso de Farmácia, Avenida Marechal Rondon s/n, Cidade Universitária, São Cristóvão, CEP 49.100.000, Aracaju, Sergipe, Brasil.*
[4] *Núcleo de Desenvolvimento Farmacêutico e Cosmético (NUDFAC), Rua Professor Arthur de Sá s/n, cidade universitária, CEP 50740-520, Recife, Pernambuco, Brasil.*

SUMMARY. This work aimed at developing a method for quantification of zidovudine (AZT) in microemulsion system and samples derived from *in vitro* release kinetics. The samples were quantified by UV spectrophotometry at 266 nm wavelength. The method was linear between 4 and 25 μg/mL, the coefficient of correlation (R^2) was 0.9998; it showed coefficient of variation below 5 % in intra-run and inter-run precision. The recovery was obtained with values close to the100 % of theoretical at three different concentrations using ethanol as the solvent. *In vitro* release kinetics was evaluated in Franz cell set with pre-collection set at 6 h interval. The method is suitable for zidovudine quantification in samples of microemulsion systems evaluated using relatively low cost solvents and no complex extraction techniques.

KEY WORDS: HIV, Nanotechnology, Quality Control, Transdermal.

* Autor to whom correspondence should be addressed. *E-mail:* aluismenezes@yahoo.com.br

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