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New visible spectrophometric methods for the assay of spiramycine

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Eight simple, accurate and highly sensitive spectrophotometric methods have been developed for the determination of Spiramycin (SPI), in both pure and in pharmaceutical preparations. The method M1 (PDAB) and M_2 (Vanillin) are condensation reactions with SPI. The method M_3 (Chloranil) and method M8 (DCQC) charge transfer complex has been formed with SPI. The method M4 (WFB) and M5 (BCG) involves in ion association complex formation with SPI. The method M_6 (F-C Reagent) the color formation with SPI is due to oxidation - reduction and method M_7 (Citric acid/AcOH) forms colour complex with SPI, Regreesion analysis of Beer's law plots showed good correlation in the concentration range of 5.0 - 50, 5.0 - 50, 2.5 - 15, 2.5 - 15, 5.0 - 30, 2.5 - 10, 2.5 - 15 and 2.5 - 15 and the corresponding molar absorptivity values are 1.4247 x 104, 1.256 x 104, 4.324 x 104, 5.4967 x 104, 6.1543 x 103, 7.0226 x 104, 5.1594 x 104 and 3.389 x104 for methods M_1, M_2, M_3, M_4, M_5, M_6, M_7 and M_8 respectively. All variables have been optimized and the results were statistically compared with those of literature methods by employing the student's T-test and F-test. No interference was observed from excipients normally added to the tablets.

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