

Spectroscopic Study on the Probable Interaction of Ascorbic Acid with Nipride

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ABSTRACT

The interaction between ascorbic acid (AA) and sodium nitroprusside (Niprus or Nipride) (SNP) was studied at pH 7.3 phosphate buffer 0.06 M solution using spectrophotometric method. The stability constants (K) were determined at different temperatures (280, 289, 295, 298, 303, and 310 K). Van't Hoof's plot was obtained and thermodynamic parameters (free energy change ΔG , enthalpy change ΔH , and entropy change ΔS) were determined. The stability constants were investigated in different surfactants (sodium dodecyl sulfate SDS, cetyltrimethylammonium bromide CTAB, and Triton X-100). The effect of pH (4-8) on stability constants were also studied.

Key words: Ascorbic Acid, Vitamin C, Sodium Nitroprusside, Nipride, Niprus, Stability Constant, Thermodynamic Parameters.

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