

## Editor's Note: Journal of Analytical & Bioanalytical Techniques (Volume 7 and Issue 6)

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### Editor's Note

Bio-analytical techniques are routinely employed to identify, purify, estimate, analyse and also for the characterization of biomolecules. Quantification of molecules that are present in biological samples is considered as heart of bio-analytical technique. These techniques help the researchers to diagnose various metabolic anomalies and also such techniques are used for development of new drugs and their metabolites in biological samples. Evolution of existing assays, introduction of newer techniques, advancement in instrumentation have made the progress of science smoother and made it possible to distinguish the drug in biological samples and the role of their biological metabolites in the complex biological specimens. The present Journal of Analytical & Bio-analytical Techniques, Volume 7 and Issue 6, documented the details about; simple and sensitive HPLC method, theoretical expressions for the DLS, TDA and intrinsic diffusion coefficients and hair growth formula.

There are various types of dopamine agonist or dopamine releaser has been used to cope up with the clinical anomalies like: Schizophrenia, mania in Bipolar disorders, nausea, vomiting and tics in Tourette syndrome. Most common antipsychotic agent that used regardlessly to the above said abnormalities is Haloperidol or Haldol (trade name). Haloperidol is chemically 4-[4-(4-chlorophenyl)-4-hydroxypiperidino]-4'-fluorobutyrophenone with molecular formula  $C_{21}H_{23}ClFNO_2$  and molecular weight is 375.86 g/mol. Yasir et al. [1], documented a simple and sensitive HPLC method, developed to study the in vitro drug delivery from haloperidol loaded solid lipid nanoparticles. In addition, this method is also applicable to analyse the self-life of developed SLNs. The results of this method asseverated that, the drug loaded with SLNs showed sustained drug release with maximum value and the self-life period of SLNs formulation i.e., 2.31 years at 4°C.

Association of variety of mechanisms results in solute molecules such as, polymerisation, aggregation. Much research was done on diffusion methods, to measure the strength and nature of these interactions. Dynamic light scattering and Taylor dispersion analysis are employed to measure the mutual diffusion coefficients and

interaction parameters of solute. The measured values by above method are limited, because the characteristics are peculiar to each method and are therefore different from the intrinsic or unweight values. Latunde-Dada et al. [2], provided significant information about the simple method used for self-association, and theoretical expression for the DLS, TDA and intrinsic diffusion coefficients that are derived for self-associating solutes. In addition, they also reported the corresponding expression for the interaction parameters. Even the limiting values of the expression are also computed to provide an insight in the relative trends of DLS and TDA diffusion coefficients even in low and high concentrations.

Steroid metabolism involves 5  $\alpha$ -reductase also known as, 3-oxo-5 $\alpha$ -steroid 4-dehydrogenases, and its principle role is to convert testosterone to dihydrotestosterone (DHT). The inhibition of DHT formation is the strategy used to treat alopecia and prostate hyperplasia. Many synthetic medicines are available but are associated with many side effects, which necessitate the interest in discovering better 5  $\alpha$ -reductase inhibitors from natural resources. Chakraborty et al. [3], aimed to formulate hair growth gel formation containing extracts of *Hibiscus rosa-sinensis* flower, *Eclipta alba* whole plant and *Solanum nigrum* plant berries, as these effective herbal treatment is showing 5 $\alpha$ -reductase inhibitory activity, and can be effectively used to treat alopecia. The parameters such as pH, viscosity, spreadability and consistent homogeneity reported no skin irritations. The quantification of bioactive markers was done by HPTLC also resulted in positive outcome.

### References

1. Yasir M, Sara UVS, Som I, Singh L (2016) Development and Validation of a New HPLC Method for in-vitro Studies of Haloperidol in Solid Lipid Nanoparticles. J Anal Bioanal Tech 7: 339.
2. Latunde-Dada S (2016) Theoretical Comparisons of the Concentration-Dependent Diffusion Coefficients from Dynamic Light Scattering and Taylor Dispersion Analysis. J Anal Bioanal Tech 7: 340.
3. Chakraborty A, Bhattacharjee A, Sodani A, Jain D, Mukhopadhyay G, et al. (2016) Herbal Hair Gel Formulation having 5  $\alpha$ -Reductase Inhibitory Activity and its Standardization by HPTLC. J Anal Bioanal Tech 7: 341.