# Review of: "Infrared Spectroscopy (FT-NIR) and t-Distributed Stochastic Neighbor Embedding (t-SNE) as an Analytical Methodology for Rapid Identification of Tea Adulteration"

Sanmitra Barman[1]

1 School of Engineering and Technology, BML MUNJAL UNIVERSITY, Gurgaon, India

Potential competing interests: No potential competing interests to declare.

This article describes a machine learning approach combined with NIR spectroscopic analysis to differentiate various tea samples. This work needs major revision before publication. Here are my comments.

1. The tea leaves preparation (sample preparation) method for the NIR experiment should be clearly stated.

2. For the Quebra Pedras tea leaves, the normalized reflectance in Fig 4 (a to c) spectra seems a lot different from the deconvoluted spectra. A better spectrum should be represented.

3. The authors stated that they have used Gaussians for deconvolution. They should mention the importance of using Gaussians and not any other deconvolution method here.

4. The cluster analysis of teas should be described in more detail.