

Review of: "Ruminal CO₂ Holdup Monitoring, Acidosis Might Be Caused by CO₂ Poisoning"

Fathurrahman Lananan¹

¹ Universiti Sultan Zainal Abidin

Potential competing interests: No potential competing interests to declare.

This is the first-ever dataset to measure CO₂ levels within the rumen of cattle, utilizing a novel approach that continuously monitors pH to predict dissolved CO₂ (dCO₂), along with the direct measurement of dCO₂ using Attenuated Total Reflectance Infrared (ATR-IR) spectroscopy at a 4.27 μm IR wavelength. The study, while straightforward in terms of sensor technology, is profound and meticulous in its biological insights. It represents a fusion of Animal Science and Computer Science. I am impressed by the scientific rigor and innovative methodology employed in this groundbreaking exploration. The researchers have successfully combined simple techniques to achieve complex findings, presenting new knowledge that the world has not seen before. This study exemplifies the effective integration of sensor technology and computer science into biological applications, providing significant advancements in our understanding of previously unexplained biological mechanisms.

I have no objections to the experimental design or data analysis; both were executed with precision, including data management, probability laws, and statistical approaches, all of which were superbly correlated with the underlying biological mechanisms. Congratulations to the research team for their outstanding work. I look forward to seeing more groundbreaking discoveries like this, as such research will undoubtedly lead to a more productive, sustainable, and better world.