Raman spectroscopy as a complementary tool for chitin and chitosan quantification

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Raman spectroscopy has emerged as a powerful technique for biomolecular analysis due to its high chemical and structural sensitivity, non-destructive nature, and lack of sample preparation requirements. This talk will introduce the basic principles of Raman spectroscopy and provide a brief overview of its use in studying fungal cell wall components such as chitin and chitosan. Traditional methods face challenges in distinguishing these compounds, but Raman spectroscopy offers a promising alternative. Recent results will be presented demonstrating the use of Raman spectroscopy to quantify the chitin:chitosan ratio in fungal species such as *Pochonia chlamydosporia* and *Akanthomyces lecanii*.