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Physics as background foundation for process engineers and analytical scientists

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Process engineers and analytical scientists are introduced to logical system thinking, spectroscopy, diffraction, wet analysis etc... where dependent and independent variables are assessed. Fourier Transform Infrared spectroscopy utilises the Michelson interferometry while X-Rays diffraction and fluorescence exploit the Bragg's law. Laplace transforms are main tools utilised while solving complex process problems. This paper raises the needs of a sound physics knowledge and background for the understanding of the phenomenon faced with in the use of analytical pieces of equipment and to facilitate the interpretation of the collected data. Case studies experienced during 39 years of teaching experience will be discussed.

Apply to be considered for a student award (Yes / No)?

No

Level for award (Hons, MSc, PhD, N/A)?

N/A

Main supervisor (name and email) and his / her institution

Self

Would you like to submit a short paper for the Conference Proceedings (Yes / No)?

Full

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