

VIBRATIONAL SPECTROSCOPY IN INDUSTRIAL CHEMICAL QUALITY CONTROL

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The constant need for quality improvement and production rationalization in the chemical and related industries has led to the increasing replacement of conservative control procedures by more specific and environmentally compatible analytical techniques. In this respect, vibrational spectroscopy has developed over the last years - in combination with new instrumental accessories and statistical evaluation procedures - to one of the most important analytical tools for industrial chemical quality control and process monitoring in a wide field of applications. In the present communication this potential is demonstrated in order to further support the implementation of mid-infrared (MIR), near-infrared (NIR) and Raman spectroscopy primarily as industrial on-line tools. To this end the data of selected feasibility studies will be discussed in terms of the individual strengths of the different techniques for the respective application.