

QUANTITATIVE EVALUATION OF AN ACTIVE PHARMACEUTICAL INGREDIENT IN TABLETS

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In this investigation we have determined the best combination of incident and diffracted beam optics and the data collection method to quantify an active pharmaceutical ingredient (API) in a typical pharmaceutical solid. The methodology should allow non-destructive testing for the uniformity of the API content in a batch. Different types of solids require different diffraction geometries and / or data collection strategies. We used Indometacin tablets as an example of a typical solid oral dosage form. A comparison of various approaches and their results in dependence of tablet shape and particle size of the API is given. We will show that the chosen diffraction geometry and measurement technique strongly influence the accuracy of the quantitative results. The results were also correlated to UV data.