

Image Processing-based Qualitative & Quantitative Analysis

- Micro Powder Injection Molding

- Metal Bonding (Brazing)

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Abstract

Image process-based analysis is one of the practical methods to characterize the material property or physical phenomena. Compared to the conventional methods including scanning electron microscopy (SEM), X-ray diffraction (XRD), electron probe micro-analyzer (EPMA), and transmission electron microscopy (TEM) to identify the material property such as a phase formation, it is a straightforward and efficient method in productivity and economic viewpoint. Since the image process-based analysis makes it possible to numerically quantify the material or physical properties, it allows the comparative analysis for the different materials and processing conditions. In this seminar, I would like to introduce the real applications for image processing in the powder injection molding and metal brazing. In addition, I will briefly mention the powder injection molding and metal brazing method for the better understanding its approach.