

Abstract

Method for classifying unknown particles on a surface of a semiconductor wafer

5 A method for classifying unknown particles on a surface of a semiconductor wafer, comprising the application of particles of known chemical composition and different size to a test wafer, ascertainment of a size of a plurality of particles of known chemical composition, and recording of a spectrum of an energy-dispersive x-ray spectroscopy of a plurality of particles of known chemical composition, followed by the
10 respective ascertainment of a substantive content therefrom, and fitting of a best-fit curve to size and substantive content of the particles of known chemical composition; additionally, the ascertainment of a particle size of an unknown particle and recording of a spectrum of an energy-dispersive x-ray spectroscopy of the unknown particle, and determination therefrom of the substantive content of the unknown particle on a
15 semiconductor wafer, and classification of the unknown particle as the result of the comparison of the size and the substantive content of the unknown particle with the best-fit curve.

Drawing for the Abstract: **Figure 1**