

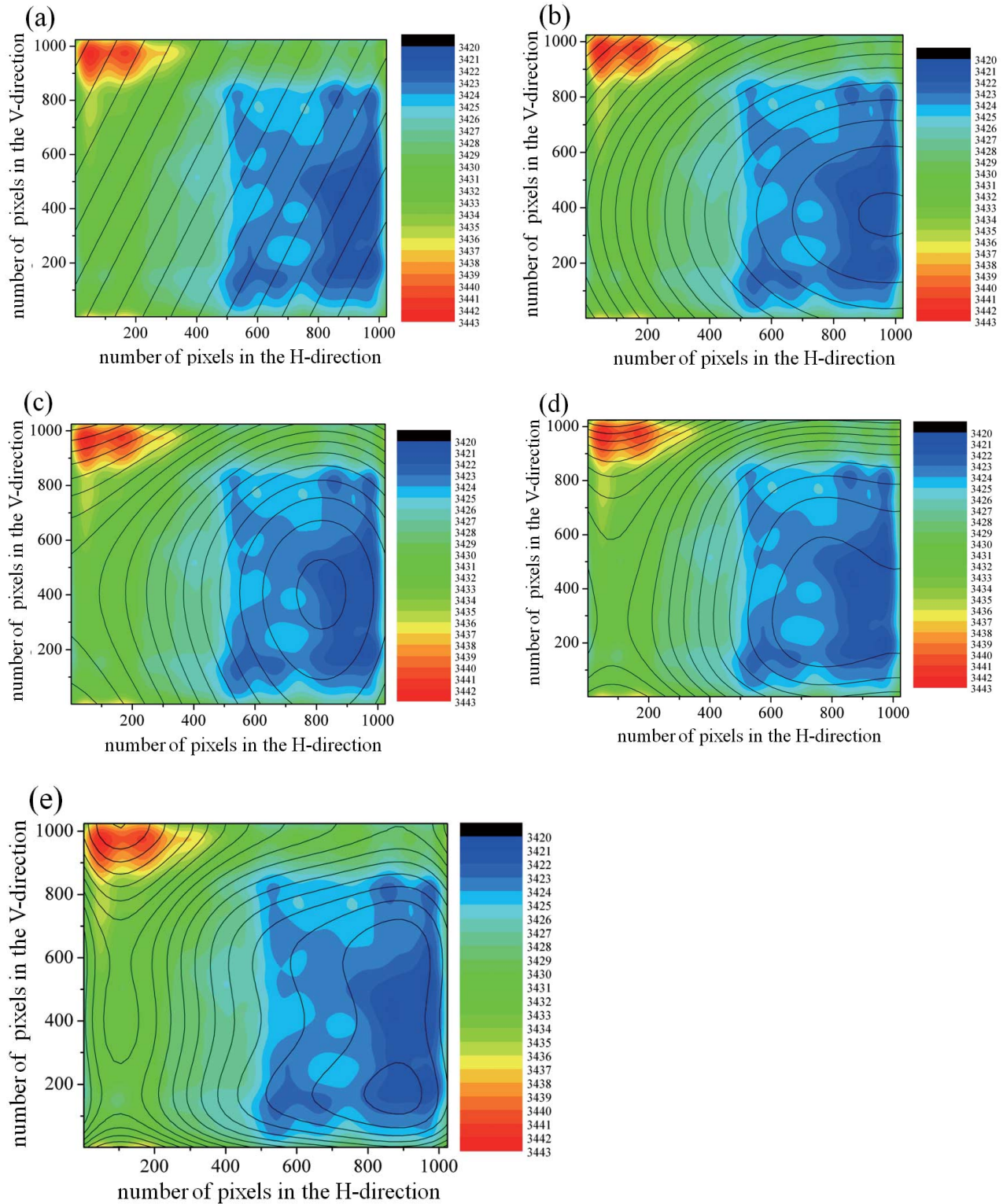


Fig. 10. Appearance when fitting different two-dimensional polynomial regression models of the (a) first-, (b) second-, (c) third-, (d) fourth-, and (e) fifth-degree.

over, the polynomial regression model also has a tendency to oscillate at both ends of the data. Figures 9(a) and (b) show examples of a line profile in each direction and a regression curve of the fifth-degree model. These line profiles were extracted from the center of a stationary noise image.

Each regression curve was able to capture the characteristics of the line profile almost exactly. However, for points with large variations in pixel value, or smaller fluctuations, the regression curve did not capture the line profile completely. Therefore, for capture flexibly, it was determined