Roughness Parameters for Evaluating Sanded Surface of Hardwood

Parameters corresponded to tactile roughness

The quality of the sanded surface of wood and wood based materials is often classified by visual and tactile sense. The purpose of this study is to determine the roughness parameters corresponded to the tactile roughness to the automatic control of the machining or the evaluation of wood surface.

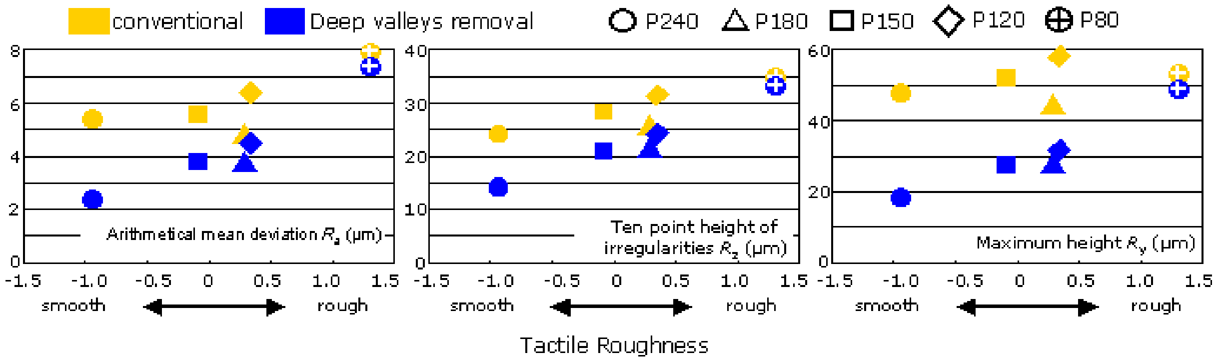

Fig.1 Relationship between Arithmetical mean deviation (Ra), Ten point height of irregularities (Rz), and Maximum height (Ry) and tactile roughness.

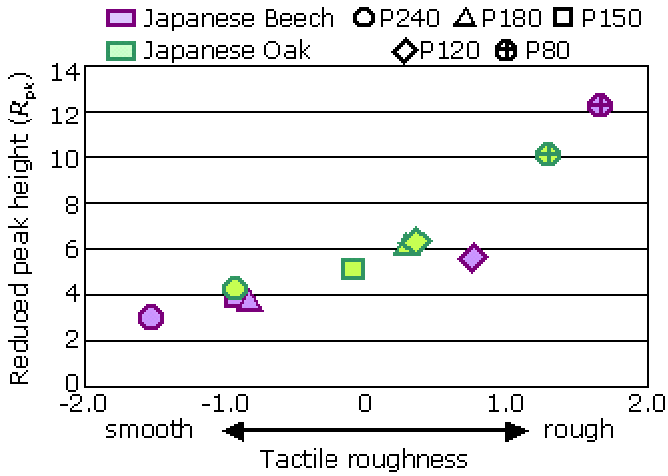

Fig.2 Relationship between Reduced peak height (Rpk) and tactile roughness. (Abott-curve is obtained from roughness profile which is determined by Robust Gaussian Regression filter.)