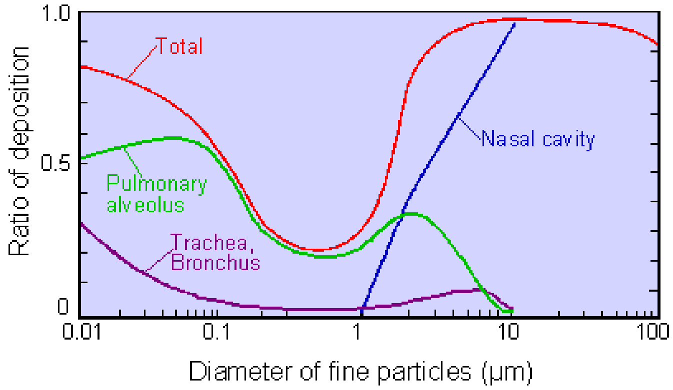
1992

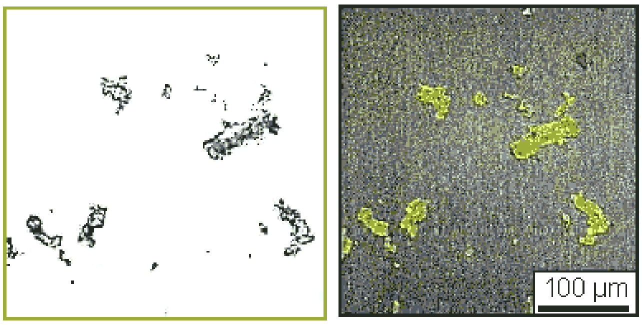
Shape of Fine Particles of Wood Dust Emitted in Woodworking

Fine particles of wood dust emitted in woodworking are one of the reasons for not only reducing the accuracy of processing and the performance of machines but also ruining workers health. In this study, the shape of fine particles of wood dust which especially have high floatability and respirability was revealed using the image analysis.

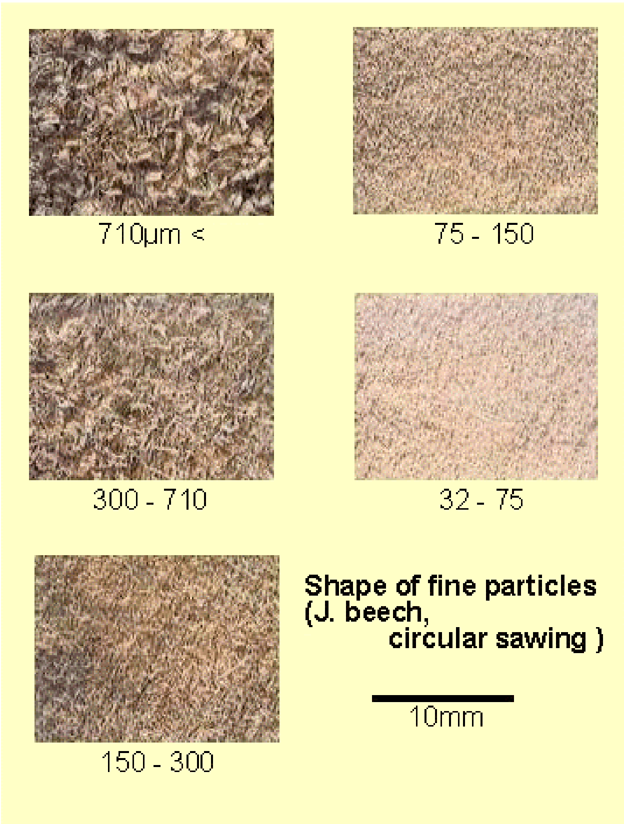


Relationship between ratio of deposition to organs and diameter of fine particles

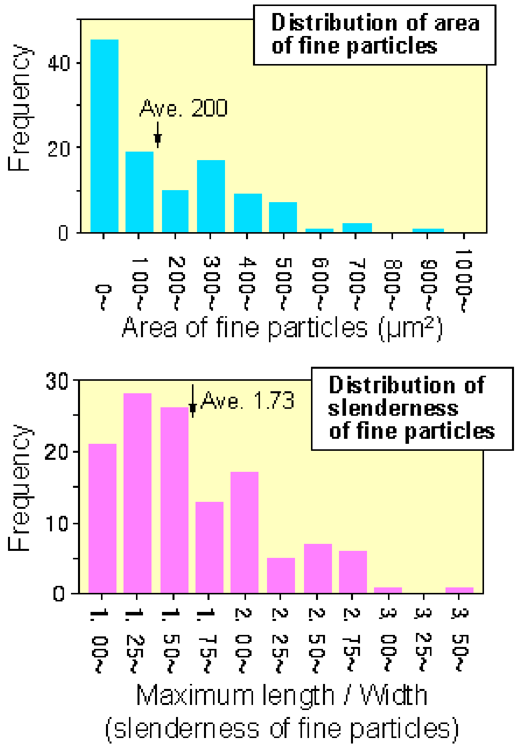
Health physics 12, pp.173-207 (1968)



The observed image of particles (sieved at 32µm, J. Oak, circular sawing)



Shape of fine particles (J. beech, circular sawing)



A result of shape measurement of fine particles of wood dust (sieved at 32µm)