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**Laser Diffraction Particle Size Analysis Of Metallic Powders : A Comparison Of Wet And Dry Measurements**

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Good powder dispersion is the main requirement for achieving reproducible and accurate measurements in particle size distribution analysis. To do so most dispersion techniques are carried out in liquid medium, like water or organic solvents. The use of liquids could be restrictive when surface activities (e.g. oxidation) or large/massive particles may cause problems for a good dispersion to be accomplished. To overcome these difficulties a dry measurement would be a better alternative. Here dry and wet laser diffraction analysis were compared doing measurements on iron, copper, aluminum, and nickel powders with different particle shapes characterized by scanning electron microscopy. Single equipment (Beckman coulter LS13320) was used for wet and dry analysis. Very similar results were achieved by both methods, meaning that a good dispersion was attained in dry laser diffraction with these powders and equipment. Dry laser diffraction analysis was also shown to be more reproducible and faster.