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INVITATION TO THE LECTURE

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Wednesday, May 26th 2004 at 1 p.m.
in Lecture Hall at the National Institute of Chemistry
Hajdrihova 19, Ljubljana

Science and Applications of Well-Defined Metallic Particles

The importance of finely divided metals, ranging in size from few nanometers to several micrometers, is now recognized in many well-established technological fields such as electronics, catalysis, pigments, metallurgy as well as in many other emerging applications in medicine, biology, optics, magnetic storage, conductive coatings, to name only a few. As they evolve, these applications are likely to require metallic particles with well-controlled size, size distribution, morphology, composition, internal structure, and surface properties. The presentation will give an overview of the most widely used preparation techniques to generate metallic particles and will discuss in detail the mechanisms responsible for the formation of uniform metal colloids in homogeneous solutions. The ability of the chemical precipitation method to tailor the properties of the metal powders to present and future specific practical needs through a proper design and control of the critical parameters of the preparation process will be particularly emphasized and amply illustrated.