東京大学グローバルCOEプログラム　機械システム・イノベーション国際拠点

東京大学 THE UNIVERSITY OF TOKYO

GMSI Global Center of Excellence for Mechanical Systems Innovation

第22回　GMSI　イブニングセミナー（第2部）

Industrial and Medical Applications of Nanotechnology - Linking mechanics to chemistry and biology

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日時：　2010年12月20日（月）17:00-18:00（第2部）

会場：　東京大学工学部 11号館 1F 講堂

要旨

Engineering at the nanometer scale challenges the basics of classical mechanics. This seminar will show several prominent examples how nanotechnology can change classical industrial solutions and leads to unexpected alternatives, often considered as disruptive technologies: Next to viscous metals, nanoporous metal filters for water purification and new unit operations based on nanomagnets, we will discuss clinical applications for the treatment of bone fracture through injectable, bioresorbable cements and light curable bone glue, in dentistry and *in vivo* toxin removal using selective capture of noxious compounds from inside a living organism through specialized nanomagnets and thereby offers an alternative to the current clinical practice of “drug in – disease out”.

The Functional Materials Laboratory (founded 2004) under the supervision of Prof. Stark (1976) explores nanosafety and clinical and industrial applications of nanoparticles. At present, there have been 110 papers, 20 patents and 3 spin-off companies.

主催：　東京大学グローバルCOEプログラム「機械システム・イノベーション国際拠点」
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