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Microsystems for the enablement of nanotechnologies

ABSTRACT. A common emphasis of nanotechnology is the production of novel materials. Nevertheless, this alone achieves very little of practical importance: suitable means for their application must also be developed. This paper focuses on microfluidic reactors incorporating nanoscale catalyst materials to accomplish chemical reactions; these micromixers are defined as *nanoscale microsystems*. Potential applications are discussed, notably potable water purification, photocatalytic water splitting, and the photoreduction of carbon dioxide to make useful fuels and feedstocks.

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