

Microfluidic channel supported with copper nanoparticles

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Inorganic polymeric microfluidic channel supported with transition metal nanoparticle on the surface was fabricated through the curing of Polyvinylsilazane (KiON) and Allylhydropolycarbosilane (AHPCS) under UV ray followed by modification of surface with 3-aminopropylethoxysilane or mercaptopropyltrimetoxysilane and tethering the nanoparticle on the surface with the linkers. TEM, FE-SEM, and contact angle measurement make it sure that the particle adhere on the surface. The introduction of nanoparticles on the microfluidic channel provides a new way of heterogeneous catalytic reaction using various merits of microfluidic channel.