(pour info : identificateur **3ceb40591f86e** minicolloque $n°9$ envoyé par pinna@fhi-berlin.mpg.de depuis 141.14.143.104[141.14.143.104])

Synthesis, characterization and size control of vanadium oxide nanorods

N. Pinna, K. Weiss, H. Sack-Kongehl, J. Urban

Fritz-Haber-Institut der MPG, Abt. AC, Faradayweg 4-6, D-14195, Berlin.

V_2O_5 is a catalyst widely used in various chemical reactions, such as in partial oxidation reactions or in the selective reduction of NO_x.
In this work the synthesis of vanadium oxide nanorods has been performed by reverse micelle technique[1]. The nanorods are formed istantaneously (cf. Figure 1 left) and are stabilized by the microemulsion. Their average length is 50 nm and their width is 3 nm.
After 4 days in the solution the nanorods grow and their length can reach few hundreds of nanometers and the average width is 8 nm (cf. Figure 1 right).

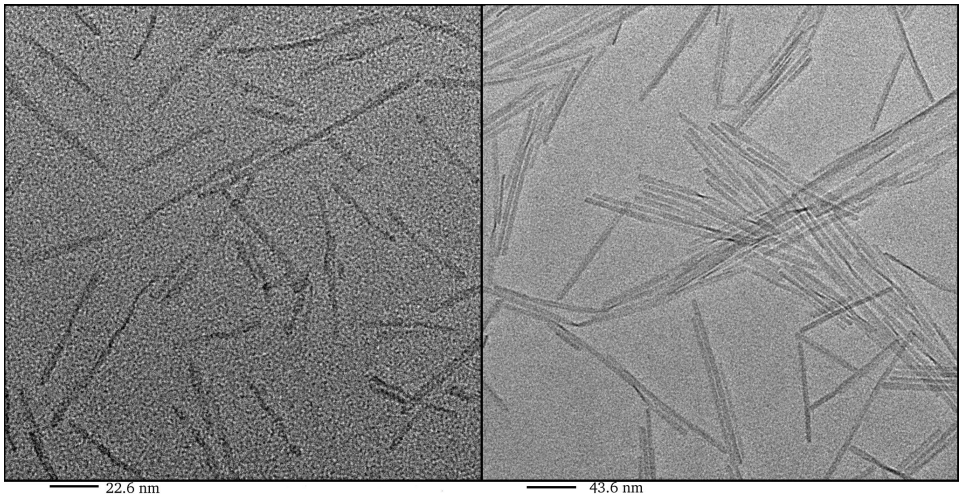

Fig 1 *Vanadium oxide nanorods sythetized in reverse micelles: just after synthesis (left) and 4 days later (right)*

[1] M. P. Pileni, Langmuir, 1997, 13, 3266