Superior photocatalytic behaviour of novel 1D nanobraids and nanoporous α-Fe₂O₃

J. Sundaramurthy*a,c, P. Suresh Kumar*a,c, M. Kalaivani*b, V. Thavasi*c*, S. G. Mhaiskar*a, and S. Ramakrishna*b,c

*aSchool of Materials Science and Engineering, Nanyang Technological University, 50 Nanyang Avenue, Singapore 639798.

*bMechanical Engineering, National University of Singapore, Singapore 117576.

*cNUS Nanoscience and Nanotechnology Initiative, National University of Singapore, Singapore 117576.

* E-mail: seeram@nus.edu.sg; velnanotech@gmail.com; sundaram1304@gmail.com
Fax: +65 6872 5563; Tel: +65 6516 6593.

Supplementary information:

Fig. S1 SEM images of (a) 4 wt% and (b) 6 wt% Fe(acac)₃/PVP composite fibers at 15 kV and 18 kV power supply.
Fig. S2. UV-Visible absorption spectrum of α-Fe₂O₃ nanobraid structures.

Fig. S3. UV-Visible absorption spectrum of congo red dye in the absence of α-Fe₂O₃ nanostructures before and after 140 min of UV exposure.