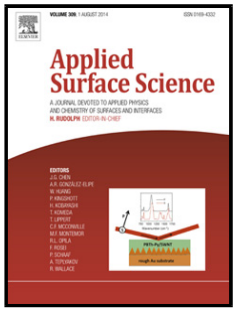

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PII: S0169-4332(14)01186-6
DOI: http://dx.doi.org/doi:10.1016/j.apsusc.2014.05.146
Reference: APSUSC 27964

To appear in: *APSUSC*

Received date: 4-2-2014
Revised date: 21-5-2014
Accepted date: 22-5-2014

Please cite this article as: T. Bahners, W. Mölter-Siemens, S. Haep, J.S. Gutmann, Control of oil-wetting on technical textiles by means of photo-chemical surface modification and its relevance to the performance of compressed air filters, *Applied Surface Science* (2014), http://dx.doi.org/10.1016/j.apsusc.2014.05.146

Control of oil-wetting on technical textiles by means of photo-chemical surface modification and its relevance to the performance of compressed air filters

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Highlights

- The oil repellence of textile fabrics was increased following the Wenzel concept.
- Fiber surfaces were micro-roughened by means of pulsed UV laser irradiation.
- Subsequent UV-grafting grafting yielded pronounced oil repellence.
- The grafting process conserved the delicate topography of the fiber surfaces.
- The modified fabrics showed favorable drainage behavior in oil droplet separation.