PhD course "Chemometrics and Experimental Design in Chemistry"

CURRICUL VITAE

Hans Grahn

1   Short CV

Dr. Hans Grahn, Ph.D. is a co-founder of the Swedish company Corpus Data & Image Analysis AB and functions as its COO. As a Scientist - Entrepreneur, Dr. Grahn has founded seven companies (four in Sweden, one in Spain and two in the USA) and currently holds the position as Chief Operating Officer at the company Sapheneia, Inc. based in Colorado, U.S.A. where Dr. Grahn focuses on medical imaging technologies and is also responsible for commercial expansion to worldwide markets. Dr. Grahn has a broad experience in regulatory requirements, having collaborated actively in ISO certifications, FDA clearances (510k) and CE markings.

Dr. Grahn has a PhD in physical organic chemistry from Umeå university of Sweden and has done teaching and research at Syracuse university, NY, USA, Université de Lausanne, Switzerland, university of Örebro in Sweden and the Karolinska institute in Sweden. He worked in the pharmaceutical industry before he became Assoc. Professor at the Karolinska institute and Adjunct Prof. at the Örebro university, Sweden. He has published more than 40 peer-reviewed articles and two textbooks in collaboration with Prof. Paul Geladi.

Dr. Grahn's scientific background has in recent years focused on multivariate- and hyperspectral analysis, preclinical/clinical magnetic resonance imaging (MRI) and spectral/imaging techniques using near infrared (NIR) and impedance measurements for the Healthcare industries.

Recently, Dr. Grahn with the company Corpus, has published a patent for diagnosing skin diseases including malignant melanoma and diabetes induced neuropathy. Dr. Grahn has been involved in several EU projects as Project Coordinator, working with partners and subcontractors, coordinating project memmembers, supervising work plans and schedules, collecting deliverables, and checking milestones.

2   Bibliometric data

N/A

3   Selection of the 10 most relevant publications and/or patents

Patent: Composite sensors for spectral and electrical measurements on patient's skin disorders. PCT/EP2020/086209

Publications

1. H. F. Grahn and P. Geladi," Applications of Multivariate Data Analysis Techniques to NMR Imaging" in D. N. Ruthledge (Ed.), Signal Treatment and Signal Analysis in NMR, Elsevier, Amsterdam 1995.

2. P. Geladi and H. F. Grahn, Multivariate Image Analysis, Wiley, Chichester, ISBN 0-471-93001-6 (1996). http://www.nirpublications.com/image.html

3. H. Grahn and P. Geladi, "Application of multivariate data analysis techniques to NMR imaging", Data Handling in Science and Technology, vol. 18, 513-534, (1996)

4. K. Fuxe, B. Bjelke, B. Andbjer, H.F. Grahn, R. Rimondini and L. F Agnati, "Endothelin-1 induced lesions of the frontoparietal cortex of the rat. A possible model of focal cortical ischemia", Neuroreport, 8 (11), 2623-9, (1997).

5. B. Wahlund, H. Grahn, J. Sääf and L. Wetterberg," Affective disorder subtyped by psychomotor symptoms, monoamine oxidase, melatonin and cortisol: identification of patients with latent bipolar disorder", European Archives of Psychiatry and Clinical Neuroscience, 248, 215-224, (1998).

6. B. Wahlund, H. Grahn, J. Sääf, L. Wetterberg," Classification of depressed patients using biological and clinical variables; application of a pattern recognition method", Biological Psychiatry, 42, 258S-258S, (1997).

7. P. Geladi and H. Grahn, "Multivariate Image Analysis", in Wiley, Encyclopedia of Analytical Chemistry, Meyers R. (ed), John Wiley & Sons, Ltd, Chichester, 13540-13562 (2000).

8.Techniques and applications of hyperspectral image analysis, Hans Grahn and Paul Geladi (eds.), Wiley, Chichester, 2007, ISBN 978-0-470-01086-0

9. P. Paul, H. Grahn and M. Manley," Data analysis and chemometrics for hyperspectral imaging, Raman, Infrared, and Near-Infrared Chemical Imaging". Wiley. pp.93-107 (2010).

10. Karlsson, T. M., Grahn, H., van Bavel, B. & Geladi, P. (2016). Hyperspectral imaging and data analysis for detecting and determining plastic contamination in seawater filtrates. Journal of Near Infrared Spectroscopy, 24(2), 141-149