

## **Fotonik med inriktning mot mikrovågsfysik**

### *Thesises*

1. Innovative Contact Free Sensors for Metallurgical Process Control Malmberg,D.: 2003, Ph.D. Thesis, Lund University
2. “Non-Invasive Multi Dimensional Imaging Applied on Biological Substances”, Kaestner,A.: 2002, PhD Thesis, Chalmers University of Technology

### *Scientific papers with full paper review*

1. Multifrequency interferometer and radio continuum observations of CTA102. Rantakyro,F.T, Wiik,K., Tornikoski,M., Valtaoja,E., and Bååth,L.B.: 2003, Astron.Astrophys. 405, pp. 473-485
2. Microwave Polarimetry based scanning for the internal structure of wood, Kaestner,A.P. and Bååth, L.B.: 2005, IEEE Sensors Journal, April 2005, pp. 209-15.
3. Preliminary microwave measurements on liquid slags Malmberg,D., Björkvall, B., Malm,J. and Bååth,L.B.: 2005, Iron and Steelmaking, vol 32:no 1, pp. 61-67

### *Conferences and Workshops with full-paper review*

1. Too See what You cannot See Bååth,L.B.: 2003, SCIA2003, Göteborg, Sweden (invited talk)
2. On-line Gas Analysis using Microwave Technology Malmberg,D., Malm,J., and Bååth,L.B.:2003, Symposium on steel production, Montreal, Canada
3. “Waste gas analysis with microwave technology”, Malmberg,D., Malm, J., and Bååth,L.B.: 2001, Conference Oxygen in Steelmaking: towards cleaner steel, London, England
4. Molecular Spectroscopy in Industrial Processes Bååth,L.B.: 2003, Conference on Masers and Molecules, Särö, Sweden
5. Potential of on-line gas analysis using microwave technology Malm,J., Bååth, L.B, and Malmberg,D.: 2004, Acanmet II, Luleå, Sweden
6. Imaging of metal prostheses in the human body: experiments and simulations Hashemzadeh, P., Fhager, A., Kopecky, R., Bååth,L.B, Persson, M.: 2005, Radiovetenskap och Kommunikation, Linköping, Sweden
7. Experimental results of an optimization approach to two-dimensional time domain electromagnetic inverse problem with application to microwave breast tomography Hashemzadeh,P., Fhager,A., Bååth,L.B., Persson,M.: 2005, Proceedings of the IASTED International Conference BIOMEDICAL ENGINEERING, Innsbruck, Austria

8. Microwave Imaging of Mammography using an iterative time-domain reconstruction algorithm;

initial experiments Fhager,A., Hashemzadeh,P., Bååth,L.B., Persson,M.: 2004, 16th international Zurich Symposium in Electromagnetics Compatibility, Zurich, Schweiz

9. Towards a mammographic microwave imaging experiment Fhager,A., Hashemzadeh,P.,

Bååth,L.B., Persson,M.: 2004, EMB, Göteborg, Sweden

10. Using Microwave Technology to create a Topographic Image of the Burden Surface in a Blast

Furnace Nilsson,E. and Malmberg,D.: 2005, 15th Steelmaking Conference and 2nd Ironmaking

Conference, Argentina