

2nd Workshop on Laser Ultrasonics for Metallurgy

PROGRAM

Session 1: Grain size measurements

- T. Garcin, J.H. Schmidt, M. Militzer: In-situ laser ultrasonic grain size measurement in superalloy INCONEL 718
- M. Keyvani, T. Garcin, D. Fabrègue, M. Militzer, K. Yamanaka, A. Chiba, Continuous measurements of recrystallization and grain growth in cobalt super alloys,
- Robinson, T. Garcin, W. Poole, M. Militzer, Laser ultrasonics austenite grain size measurement in in line pipe steels

Session 2: Recrystallization and phase transformations

- P. Lundin, B. Hutchinson and D. Lévesque, Laser Ultrasonics for process control in metal industry.
- Shinbine, T. Garcin, C. Sinclair, In-situ laser ultrasonic measurement of the hcp to bcc transformation in commercially pure titanium
- T. Garcin, M. Kulakov, W. Poole, M. Militzer, Evaluation of ferrite recrystallization and austenite formation in Dual Phase steel.

Session 3&4 Technical equipment and data processing

- B. Allen: New development on Gleeble system
- M. Choquet: Good practice guidelines for laser ultrasonics
- T. Garcin: Processing of ultrasound data applied to the evaluation of metallurgical parameters.

Session 5: Modeling and Simulations

- J. Turner, Ultrasonic Wave Propagation in Polycrystalline Media: Modeling, Computations, and Experiments

- D. Neumann, M. Strangwood and C.L. Davis: Modelling ultrasonic attenuation due to scattering in complex microstructures
- T. Garcin, Q. Puydt: Finite Element simulation of ultrasound wave propagation in polycrystalline cubic material

Session 6: Application to hot rolling processes

- N. Legrand, D. Levesque, S. Sarkar, N. Naumann, L. Satyanarayan, A. Jonsson: Laser Ultrasonic technique combined with metallurgical model to monitor steel microstructure during hot rolling
- Q. Yang, A. Yin: Prediction of grain size and texture in steel production by laser ultrasonic
- M. Keyvani, T. Garcin, D. Fabrègue, M. Militzer, K. Yamanaka, A. Chiba, Continuous measurements of recrystallization and grain growth following hot rolling in cobalt super alloys

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