

Diss. ETH 5264

**ELEKTRISCHER WIDERSTAND,  
HALL-EFFEKT UND RAUSCHEN  
DÜNNER AUFDAMPFSCHICHTEN**

**ABHANDLUNG**

zur Erlangung

des Titels eines Doktors der technischen Wissenschaften  
der

**EIDGENÖSSISCHEN TECHNISCHEN  
HOCHSCHULE ZÜRICH**

vorgelegt von

**KLAUS STADLER**

dipl. El.-Ing. ETH

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Prof. Dr. M. J. O. Strutt, Referent

Prof. Dr. J. L. Olsen, Korreferent

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Summary

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The application of Ultra-High-Vacuum Low-Dust equipment for the production of thin Au film resistors was investigated. In the range 10 to 400 Å thickness no simple theoretical behavior for the conductivity was found. Thicker films showed metallic conduction dominated by lattice defects.

All coefficients were measured " in situ ", that is under Ultra-High-Vacuum.