

Sudan University of Science and Technology
College of Graduate Studies

**Work Functions Effects of Some Metals on
Semiconductors to Enhance the Efficiency of
Semiconductors by Using Metal-Semiconductor
Contacts**

تأثير دوال الشغل لبعض المعادن في أشباه الموصلات لتحسين كفاءة
أشباه الموصلات باستخدام تلامس معدن وشبه موصل

**A thesis submitted in partial fulfilments of the
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Submitted by:

Osman Abdalla Abaker Mohammed

Supervisor:

Dr. Rasha Abd Alhi Mohammad Taha

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Chapter one
Introduction

Chapter two

Introduction of semiconductors

Chapter three

Metal-semiconductor contacts

Chapter four

Calculations of Schottky barrier height and built in potential (Φ_B , V_{bi}) for some metals