بسم الله الرحمن الرحيم

سامية محمد مصطفى

شبكة المعلومات الجامعية
التوثيق الالكتروني والميكروفيلم

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جامعة عين شمس

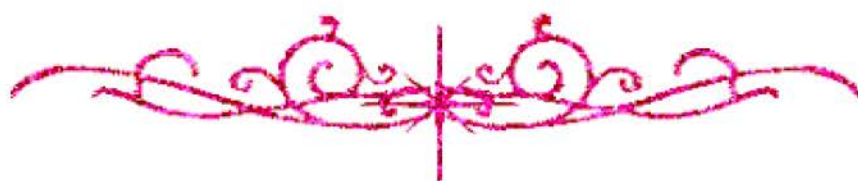## التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

يجب أن

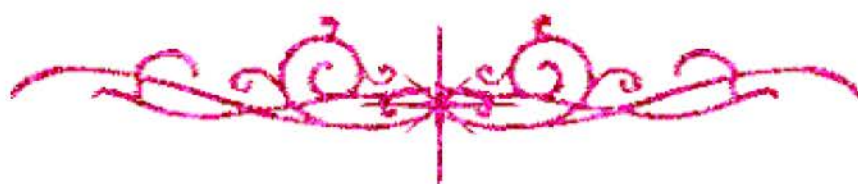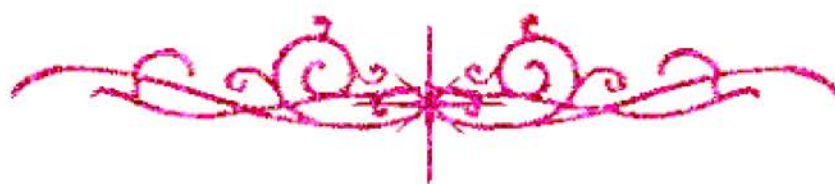## تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

بعض الوثائق الأصلية تالفة

بالرسالة صفحات
لم ترد بالأصل

South Valley University
Faculty of Science (Aswan)

The Transport Properties of In_2S_3, Ga_2Te_5

A Thesis
Submitted to the Faculty of Science (Aswan)
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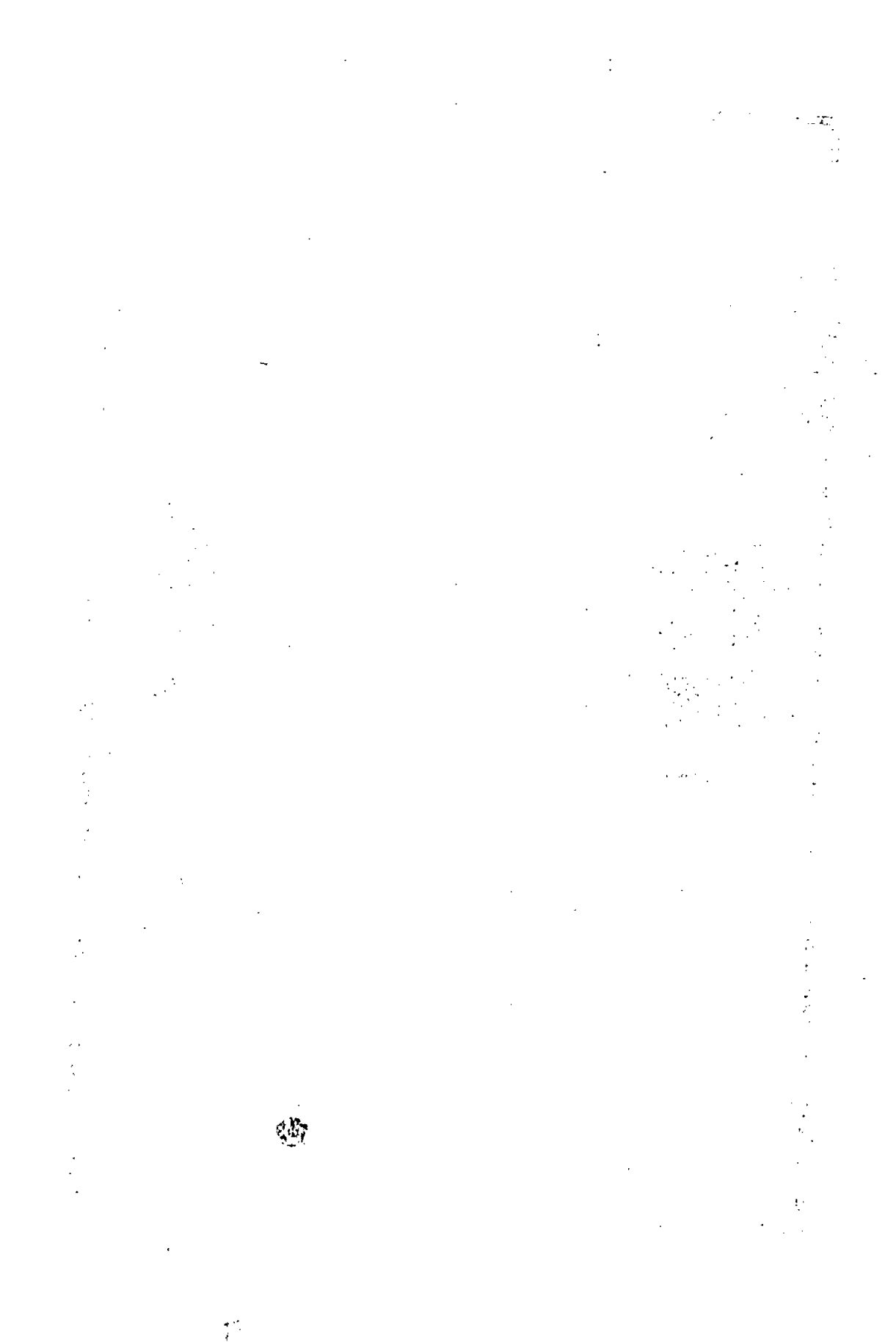
GUIDE TO SYMBOLS

E_c	Bottom of conduction band.
E_v	Top of valence band.
σ	Electrical conductivity.
n	Concentration of electrons.
P	Concentration of holes.
e	Electron charge.
μ	Mobility.
N_o	Concentration of atoms at the lattice sites.
K_B	Boltzmann constant.
T	Absolute temperature.
B	Magnetic induction.
V_H	Hall voltage.
b	Width of the semiconductors sample.
d	Thickness of semiconductors sample.
R_H	Hall constant.
μ_n	Electron mobility.
μ_p	Hole mobility.
μ_H	Hall mobility.
V_E	Ettingshausen voltage.
V_N	Nerst voltage.
V_{RL}	Righi-Leduc voltage.
V_M	Hall-probes voltage.
E_i	Initial electron energy.
E_f	Final electron energy.

$\hbar\omega_{(q)}$	Energy of phonons.
m^*	Mass of electron neglecting spin.
$\hbar\omega_o$	Energy of optical phonon.
μ_{opt}	Mobility of scattering optical phonon.
μ_{ac}	Mobility of scattering acoustical phonon.
τ_D	Relaxation time of the distribution.
$\Gamma_{(\eta)}$	Gamma function.
μ^*_{bn}	Effective mobility of electrons.
μ^*_{bP}	Effective mobility of holes.
τ_n	Free lifetime of an electron.
τ_p	Free lifetime of a hole.
τ	Free carrier lifetime.
K	Temperature in Kelvens.
ΔE_d	Donor impurity ionization energy.
ΔE_g	Energy gap width.
ΔE_a	Acceptor impurity ionization energy.
ε_r	Dielectric constant.
R	Ohmic risestance.
C_p	Condenser resistance.
$F(\theta)$	The extrapolation function.
$<D>_{vol}$	The grain size.
ε	The micro-strain.
η	The density of dislocations.