

الآية

بسم الله الرحمن الرحيم

قال تعالى ﴿ وَفَوْقَ كُلِّ ذِي عِلْمٍ عَلِيمٌ ﴾ ﴿ 76 ﴾

صدق الله العظيم

سورة يوسف

Dedication

To the one who incurred hardship to drink me a drop of love to the one whose hands have tuckered out to provide us with moment of happiness to the one who removed obstacles out of my way to set me the stage of learning to the big heart (My Dear Father) to the one who breasted me love and affection To the symbol of love and the panacea to the good white-hearted (My Beloved Mother) to the impure gentle hearts to the innocent souls the flowers of my life(My sibling)to the soul that dwelled mine, for now sails are hoisted, anchors are lifted for the ship is to sail onto a wide dark sea of life. In this darkness, nothing lights but the fat beneath the soul brotherhood memories candlesticks, to those who we are mutually loving (My Friends)

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A b s t r a c t

The study of Nano-semiconductors has a lot of interest due to their optical and electronic properties. In this study, described simple new method was described to prepare silver sulfide nanoparticles (Ag₂SNPs). The nanoparticles compounds (NPs) were distinguished by their monocrystalline structure with an effective diameter of 50 μ m using scanning electron microscope (SEM). Then Energy dispersive X-ray machine (EDX), was used, and showed that there are some impurities in the sample with a concentration of 1%. As for The remaining samples, there are on impurities. As for the Transmission electron microscope (TEM), the spherical particles were the size of an effective diameter 100 nm, and the nanoparticles of the Ag₂S were attributed to the surface atomic proportions shown by the sulfide nanoparticles with varying treatment conditions where they appearing the optical and electric properties, where the absorptivity of the samples ranged between (380-450)nm and the absorption coefficient between (2.9-4.9) $\times 10^3$ cm and highest energy gaps according to the concentration each sample (1%,3%,5%,7%,9%),(3.31,3.33,3.37,3.42 and 3.47)ev, is Respectively.

المستخلص

دراسة أشباه الموصلات النانوية لديها الكثير من الاهتمام بسبب خواصها البصرية والإلكترونية. في هذه الدراسة تم وصف طريقة بسيطة وجديدة لتحضير الجسيمات النانوية لكبريتيد الفضة (Ag₂S NPs) تميزت مركبات الجسيمات النانوية (NPs) بتركيبها البلوري الأحادي بحجم قطر فعال 50µm وذلك باستخدام المجهر الإلكتروني الماسح (SEM). تم استخدام جهاز الأشعة السينية متشتت الطاقة (EDX) وجدت هناك بعض الشوائب في العينة ذات التركيز 1% اما بالنسبة للعينات المتبقية فلا توجد شوائب. تمت معالجة الجسيمات من خلال المجهر الإلكتروني ناقل الحركة (TEM) حيث كانت الجسيمات كروية الشكل بحجم قطر 100nm وتعزى الجسيمات النانوية لكبريتيد الفضة (Ag₂S) الى النسب الذرية السطحية التي أبدتها الجسيمات النانوية لكبريتيد الفضة مع ظروف المعالجة المتفاوتة حيث ظهرت في الخصائص البصرية والكهربية حيث تراوحت امتصاصية العينات بين (380 nm) ظهرت في الخصائص البصرية والكهربية حيث تراوحت امتصاصية العينات بين (380 nm) ومعامل امتصاص بين (2.9x10³- 4.9x10³)cm وان أعلى فجوة طاقة حسب تركيز كل عينة (1%,3%,5%,7%,9%) ev (3.3,3.33,3.37,3.42,3.47) هي علي التوالي.

Table of Contents

No.	Contents	Page No.
1	Verse	I
2	Dedication	II
3	Acknowledgement	III
4	A b s t r a c t in English	IV
5	A b s t r a c t in Arabic	V
6	Table of Contents	VI
7	List of Figures	IX
8	Table of table	XI
9	CHAPTER 1 Introduction	1
1.1	Preface	1
1.2	Research problem	3
1.3	The aim of the research	3
1.4	the importance of research	4
1.5	Thesis Lay Out	5
	CHAPTER 2 Literature review	5
2.1	Introduction	5
2.2	Synthesis of Silver Sulfide Nanowires in Ethylene Glycol through a Sacrificial Templating Route	5
2.3	Structural, optical, photoluminescence and antibacterial properties of copper-doped silver sulfide nanoparticles	6
2.4	Optical properties of silver, silver sulfide and silver selenide nanoparticles and antibacterial applications	7
2.5	Ag ₂ S deposited on oxidized polypropylene as composite material for solar light absorption	8

2.6	Synthesis and characterization of silver sulfide nanoparticles for photocatalytic and antimicrobial applications	9
2.7	Synthesis and Characterization of Silver Sulfide Nanoparticles Containing Sol-Gel Derived HPC-Silica Film for Ion-Selective Electrode Application	10
2.8	Prospects and challenges of silver sulfide thin films: A review P. A. Nwofe	11
2.9	Optical Properties of Chemical Bath Deposited Ag ₂ S Thin Films	12
2.10	Investigation of New Optical Properties of Cd and Co-doped Ag ₂ S Colloidal Solution	13
2.11	All Procedures for the Synthesis of Silver Nano sheets	14
2.12	Introduction of Ag and Ag ₂ S Nanoparticles into Nylon 6 Film and Fiber	15
	CHAPTER 3 Material and methods	16
3.1	Introduction To NPs	16
3.2	Material	17
3.3	Methods	19
3.4	Wet Chemical Route Synthesis of Silver Nanowires	19
3.5	Applications	22
3.6	synthesis of silver sulfide nanoparticles	23
	CHAPTER 4 RESULTS and DISCUSSION	26
4.1	Introduction	26
4.2	Scanning electron microscopy SEM	26
4.3	Transmission electron microscopy TEM	28
4.4	UV – visible absorption	30

4.4.1	optical absorption	31
4.4.2	Absorption coefficient	32
4.4.3	Optical energy gap	33
4.4.4	Extinction coefficient (k)	35
4.4.5	Reflection	35
4.4.6	Transmission	36
4.5	Conclusions	38
4.6	Recommendation	38
	References	39

List of Figures

No.	Subject	Page No.
1	Figure(3.1) silver nitrate	18
2	Figure (3.2) sodium sulfide	18
3	Figure (3.3) N.N-Dimethyiformaide	19
4	Figure (3.4.a) shows the silver nitrate on magnetic stiller	21
5	Figure (3.4.b) shows the silver nitrate on magnetic stiller	21
6	Figure (3.5) shows the sodium sulfide on magnetic stiller	21
7	Figure (3.6.a) shows the process of mixing sodium sulfide and silver nitrate	22
8	Figure (3.6.b) shows the process of mixing sodium sulfide and silver nitrate	22
9	Figure (3.7) shows the process of evaporation the sample	23
10	Figure(3-8) shows the process of evaporation the sample	24
11	Figure(3-9) shows the process of evaporation the sample	24
12	Figure (3.10) shows the sample after drying	24
13	Figure(3-11) shows evaporation furnace	25
14	Figure(3-12) shows the sample inside the furnace	25
15	Figure (3.13) shows the samples inside the test tubes	25
16	Figure(4.1) Scanning electron microscopy SEM	26
17	Figure(4.2) (a) Scanning electron microscopy SEM of silver sulfide with concentration 1% by wt. (b) EDX	27
18	Figure(4.3) (a) Scanning electron microscopy SEM of silver sulfide with concentration 3% by wt. (b) EDX	27

19	Figure(4.4) (a) Scanning electron microscopy SEM of silver sulfide with concentration 5% by wt. (b) EDX	27
20	Figure(4.5) (a) Scanning electron microscopy SEM of silver sulfide with concentration 7% by wt. (b) EDX	28
21	Figure(4.6) (a) Scanning electron microscopy SEM of silver sulfide with concentration 9% by wt. (b) EDX	28
22	Figure (4.7) Transmission electron	29
23	Figure (4.8.)Transmission electron microscopy SEM of silver sulfide	30
24	Figure (4.9) UV- visible absorption	30
25	Figure (4.10) Optical absorption spectra of the silver sulfide Ag ₂ S nanoparticles with different concentration	32
26	Figure (4.11) Optical absorption coefficient spectra of the silver sulfide Ag ₂ S nanoparticles with different concentration	33
27	Figure (4.12) The energy band gap of silver sulfide Ag ₂ S nanoparticles with different concentration.	34
28	Figure (4.13) The extinction coefficient of silver sulfide Ag ₂ S nanoparticles with different concentration	35
29	Figure (4.14) The reflection of silver sulfide Ag ₂ S nanoparticles with different concentrations	36
30	Figure (4.15) The transmission of silver sulfide Ag ₂ S nanoparticles with different concentrations.	37

Table of Table

No.	Subject	Page No.
4.1	The table demonstrates comparison between energy band gap and extinction coefficient and absorption coefficient.	37