



Synthesis and characterization of new hydrogels based on biopolymers for different applications

Thesis

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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I thank Allah for supporting me in everything in my life

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DEDICATION

To

My Parents and My husband

I have to thank Allah for choosing

Them to be my family

Thank you for

Supporting and helping me

Thank you

Aim of the work

Chitosan is a biopolymer and has biodegradation, antibacterial, and wound-healing activity. Because of such significant properties, we thought it worthwhile to incorporate the chemistry of chitosan with [5-aryl-9-alkyl-1H-pyrano [4,3-c]quinoline-1,3(4H)-diones](IV_{a-f}) and with [3-arylidine-5-aryl-furan-2(3H)-ones](VII_{a-d}), producing new hydrogels with expected biological activity.

CONTENTS

	Page
Summary-----	i
Introduction-----	1
1. Extraction of chitosan-----	2
1.1 From marine sources in Arabian Gulf-----	2
1.2 From Mussel shell-----	2
2. Hydrogels-----	4
2.1 Classifications of hydrogels-----	4
2.1.1 According to origin-----	4
2.1.1.1 Natural hydrogels-----	4
2.1.1.2 Synthetic hydrogels-----	4
2.1.1.3 Hybrid hydrogels-----	5
2.1.2. According to ionic charge-----	5
2.1.2.1 Non-ionic hydrogels-----	5
2.1.2.2 Ionic hydrogels-----	5
2.1.2.3 Ampholytic hydrogels-----	5
2.1.3 According to the method of preparation-----	5
2.1.3.1 Homopolymers-----	5
2.1.3.2 Copolymers-----	6
2.1.4. According to method of crosslinking-----	6
2.1.5 According to the biodegradability-----	6
2.1.5.1 Biodegradable hydrogels-----	6
2.1.5.2 Non-biodegradable hydrogels-----	6
2.1.6 According to physical properties-----	6
2.1.6.1 Conventional hydrogels-----	6
2.1.6.2 Smart hydrogels-----	6
2.2 Biochemically responsive hydrogel-----	7
3. Chemical modification of chitosan-----	7
3.1 With aldehydes-----	7
3.2 With ethylene glycol diglycidyl ether-----	10

3.3 With 2- hydroxyethyl methacrylate (HEMA) and Poly (ethylene glycol) diacrylate-----	10
3.4 With ethylenediamine-N,N,N',N'-tetraacetic acid (EDTA) or diethylene triamine-N,N,N',N'',Ni''-pentaacetic acid (DTPA)-----	10
3.5 With tripolyphosphate-----	10
3.6 With polyaspartic acid (PAsp)-----	11
3.7 With heterocycles-----	11
3.7.1 With (N,N'-biisomaleimide,N,N'-biisophthalimide,and N,N'- phthalimidomaleimide)-----	11
3.7.2 With 4-((1,3-dioxisoindolin-2-ylimino)methyl)benzaldehyde-----	11
3.8 With three component system-----	12
3.9 With dialdehydes: [4,4'-diformyl- α - ω -diphenoxyethane or 4,4'- diformyl-2,2'-dimethoxy- α - ω -diphenoxyethane]-----	12
3.10 With aromatic anhydrides-----	13
3.11 With monochloroacetic acid (MCAA)-----	14
3.12 With polycaprolactone (PCL)-----	14
3.13 With ethylene-1,2-diamine-----	15
3.14 With hydrophobic fatty acids-----	15
3.15 With epichlorohydrin-----	15
3.16 With glycine/chloroacetic acid-----	15
3.17 With Modified ball clay (MBC)-----	15
4. Evaluation of the prepared hydrogels-----	16
4.1 Metal ions adsorption from aqueous solutions-----	16
4.2 Desorption of metal ions and reuse of the adsorbent-----	17
4.3 Biomedical applications-----	17
4.3.1 The drug release-----	18
4.3.2 Ocular drug release-----	18
4.3.3 Oral drug release-----	18
5. Wound dressing-----	19
6. Biodegradability and safety of chitosan-----	19
7. Nano-particles-----	19

7.1 Chitosan Nanoparticles in Cancer Therapy-----	20
7.1.1 Antitumor activity of chitosan nanoparticles-----	21
7.1.2 Targeting of chitosan nanoparticles-----	22
7.1.3 Cancer-targeted drug delivery using chitosan and its derivatives-----	22
8. Importance of heterocyclic compounds-----	22
8.1. Quinoline derivatives-----	23
8.2 Furanones derivatives-----	24
Results & Discussion-----	26
1. Characterization of the prepared chitosan-----	26
1.1 (FT-IR) Spectra-----	26
1.2 X-ray diffractometry (XRD) Analysis-----	28
1.3 Thermal stability (Thermogravimetric Analysis) (TGA)-----	28
1.4 Determination of the degree of deacetylation for Chitosan-----	29
1.5 Studies of the Morphology-----	31
2. Modification of chitosan using different heterocyclic moieties-----	34
2.1. Synthesis of new [3-(carboxymethyl)-2-aryl-6-alkylquinoline-4-carboxylic acids](III _{c-f})-----	34
2.2 Synthesis of new 5-aryl-9-alkyl-1H-pyrano [4, 3-c]quinoline-1,3(4H)-diones (IV _{c-f})-----	43
2.3. Modification of chitosan with 5-aryl-9-alkyl-1H-pyrano[4,3-c]quinolone -1,3(4H)-diones (IV _{a-f})-----	50
2.3.1 Preparation of the new hydrogels: [Cs-A ₁₋₆] (V _{a-f})-----	50
2.3.1.2 Determination of the Degree of substitution (DS) of the hydrogels [Cs-A ₁₋₆] (V _{a-f}) and [Cs-A ₁₋₆] _G (V _{a-f}) _G -----	54
2.3.1.3 Hydrogel Characterization-----	56

2.3.1.3.1 Solubility-----	56
2.3.1.3.2 The swelling behavior-----	56
2.3.1.3.2.1 Solvent uptake and soluble fraction-----	56
2.3.1.4 X-ray diffraction-----	59
2.3.1.5 Thermal characterization-----	61
2.3.1.5.1 Thermogravimetric Analysis (TGA) of the hydrogels [Cs-A ₁₋₆] (V _{a-f}) -----	61
2.3.1.5.2 Thermogravimetric Analysis(TGA) of the hydrogels[Cs-A ₁₋₆] _G (V _{a-f}) _G -----	62
2.3.1.5.3 Differential scanning calorimetry (DSC)-----	64
2.3.1.6 Efficiency of hydrogels for Metal ions uptake-----	65
2.3.1.6.1 Cobalt ions uptake -----	66
2.3.1.6.2 Mercuric ions uptake-----	68
2.3.1.6.3 Desorption of metal ions and reusability of the adsorbent-----	73
2.3.1.6.3.1 Cobalt ions reused-----	73
2.3.1.6.3.2 Mercuric ions reused-----	77
2.3.1.7 Studies of the Morphology for the hydrogels-----	81
2.3.1.7.1 Studies of the Morphology for hydrogels (V _{a-f}) and (V _{a-f}) _G before metal ions uptake-----	81
2.3.1.7.2 Scanning electron microscopy analysis (SEM) after metal ions uptake-----	88

2.3.1.8 Evaluation of drug loading and release-----	98
2.3.1.9 Biological activity evaluation-----	101
2.3.1.9.1 In vitro antimicrobial activity measurement primary screening-	101
2.3.1.9.2 Determination of MIC of the synthesized hydrogels-----	102
2.4. Modification of chitosan with (furan-2(3H)-ones)-----	105
2.4.1 Synthesis of new [3-arylidine-5-aryl-furan-2(3H)-ones](VII _{b-d})-----	105
2.4.2 Preparation of the new hydrogels:[Cs- F ₁₋₄] (VIII _{a-d})-----	111
2.4.2.1 Determination of degree of substitution (DS) of the hydrogels [Cs-F ₁₋₄] (VIII _{a-d}) and [Cs-F ₁₋₄] _G (VIII _{a-d}) _G -----	112
2.4.2.2 Hydrogel Characterization-----	114
2.4.2.2.1 Solubility-----	114
2.4.2.2.2 The swelling behavior-----	114
2.4.2.2.2.1 Solvent uptake and soluble fraction -----	114
2.4.2.2.3 X-ray diffraction-----	117
2.4.2.1.4 Thermal characterization-----	118
2.4.2.2.4.1 Thermogravimetric Analysis (TGA) of the hydrogels [Cs-F ₁₋₄] (VIII _{a-d})-----	117
2.4.2.2.4.2 Thermogravimetric Analysis (TGA) of the hydrogels [Cs-F ₁₋₄] _G (VIII _{a-d}) _G -----	119
2.4.2.3 Efficiency of hydrogels for Metal ions uptake-----	121
2.4.2.3.1 Cobalt ions uptake-----	121
2.4.2.3.2 Mercuric ions uptake -----	122

2.4.2.4 Desorption of metal ions and reusability of the adsorbent-----	126
2.4.2.4.1 Cobalt ions reused-----	126
2.4.2.4.2 Mercuric ions reused-----	130
2.4.2.5 Studies of the morphology of the hydrogels-----	132
2.4.2.5.1 Studies of the morphology before metal ions uptake of the hydrogels (VIII _{a-d}) and (VIII _{a-d}) _G -----	132
2.4.2.5.2 Scanning electron microscopy analysis (SEM) after metal ions uptake-----	137
2.4.2.6 Evaluation of drug loading and release-----	144
2.4.2.7 Biological activity evaluation-----	146
2.4.2.7.1 In vitro antimicrobial activity measurement primary screening---	146
2.4.2.7.2 Determination of MIC of the synthesized hydrogels-----	147
2.4.2.7.3 Determination of MIC of the synthesized hydrogels [Cs-F ₁₋₄] _G ((VIII _{a-f}) _G -----	148
3. Synthesis of new hydrogels using Nano chitosan-----	148
3.1 Determination of degree of substitution (DS) of the hydrogels (IX _{a,b})---	153
3.2 Hydrogel Characterization-----	153
3.2.1 Solubility-----	153
3.2.2 The swelling behavior-----	154
3.2.2.1 Solvent uptake and soluble fraction-----	154
3.2.3 X-ray diffraction-----	155
3.2.4 Thermal characterization-----	156

3.2.4.1 Thermogravimetric Analysis (TGA): of the hydrogels (IX _{a,b})-----	156
3.2.5 Efficiency of hydrogels for Metal ions uptake-----	157
3.2.5.1 Cobalt ions uptake-----	157
3.2.5.2 Mercuric ions uptake-----	158
3.2.5.3 Desorption of metal ions and reusability of the adsorbent-----	159
3.2.5.3.1 Cobalt ions reused-----	159
3.2.5.3.2 Mercuric ions reused-----	161
3.2.6 Transmission electron microscopy (TEM) and Scanning electron microscopy analysis (SEM)-----	163
3.2.7 Evaluation of drug loading and release-----	168
3.2.8 Biological activity evaluation-----	169
3.2.8.1 Determination of MIC of the synthesized hydrogels-----	168
3.2.9 Evaluation of the antitumor activity-----	170
Biodegradability of the hydrogels-----	171
Biodegradability of the hydrogels [Cs-A ₁₋₆](V _{a-f})-----	171
Biodegradability of the hydrogels [Cs-F ₁₋₄](VIII _{a-d})-----	174
Biodegradability of the hydrogels (IX _{a,b})-----	176
General Remarks-----	178
Experimental-----	185
1- Extraction of chitosan-----	180
2- Synthesis of [3-(carboxymethyl)-2-aryl-6-alkylquinoline-4- carboxylicacids] (III _{a-f})-----	183

3- Synthesis of [5-aryl-9-alkyl-1H-pyrano [4,3-c]quinoline-1,3(4H)- diones (IV _{a-f})-----	184
4- Synthesis of new hydrogels: (V _{a-f})[Cs-A ₁₋₆]-----	185
5- Synthesis of new hydrogels: (V _{a-f}) _G [Cs-A ₁₋₆] _G -----	186
6-Synthesis of [3-arylidine-5-aryl-furan-2(3H)-ones] (VII _{a-d})-----	187
7- Preparation of new hydrogels [Cs-F ₁₋₄](VIII _{a-d})-----	188
8- Preparation of new hydrogels [Cs-F ₁₋₄] _G (VIII _{a-d}) _G -----	189
9- Preparation of chitosan nanoparticle-----	190
10- Preparation of new hydrogels (IX _{a-b}):[Nano-Cs-A] (IX _a) and [Nano-Cs-F] (IX _a)-----	191
10-1-Preparation of [Nano-Cs- A] (IX _a)-----	191
10-2-Preparation of [Nano-Cs-F] (IX _b)-----	192
11- Hydrogel Characterization-----	193
11-1 - Determination of Soluble Fraction for Solvents-----	193
11-2-Determination of Solvents Uptake-----	196
12-3-Biodegradation experiment-----	194
References-----	195
Arabic Summary-----	I