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

Thesis

Submitted to

Chemistry Department
Faculty of Women for Arts, Science and Education
Ain Shams University

For
Ph.Degree for science in
Organic Chemistry

By
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(M.Sc. Chemistry 2011)

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QUALIFICATION

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بسم الله الرحمن الرحيم

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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 though 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.

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