

Sudan University of Science and Technology
College of Graduate Studies

**Laser- Induced Graft Copolymerization of Some
Acrylic Acid Derivatives on Gum Arabic and
Gum Karaya**

**بلمرة التطعيم لبعض مشتقات حامض
الاكريليك فى الصمغ العربى وصمغ الكريا
بواسطة الليزر**

**A thesis Submitted in Fulfillment of the Requirements for the
Degree of Philosophy in Chemistry**

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بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ

قال تعالى:

{ اَللّٰهُ نُورٌ اَلسَّمٰوٰتِ وَ اَلْاَرْضِ مِثْلُ نُورِهِ
كَمِشْكَاهٍ فِيْهَا مِصْبَاحٌ لِّمِصْبَاحٍ فِي رُجَاةٍ
اَلرُّجَاةُ كَأَنَّهَا كَوْكَبٌ دُرِّيٌّ يُوقَدُ مِنْ شَجَرَةٍ
مُّبَارَكَةٍ زَيْتُوْنَةٍ لَا شَرْقِيَّةٍ وَلَا غَرْبِيَّةٍ يَكَادُ
زَيْتُهَا يُنْفِئُ وَلَوْ لَمْ تَمْسَسْهُ نَارٌ نُورٌ عَلٰى
نُورٍ يَهْدِي اَللّٰهُ لِنُورِهِ مَنْ يَشَاءُ وَيَضْرِبُ اَللّٰهُ
لِاَمْثَالِ النَّاسِ وَ اَللّٰهُ بِكُلِّ شَيْءٍ عَلِيْمٌ }

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DEDICATION

To

**My parents for fostering and encouraging my
interest in science.**

My wife,

My sons (Hussam, Hamsa and Aseel)

My brother and

My sisters

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