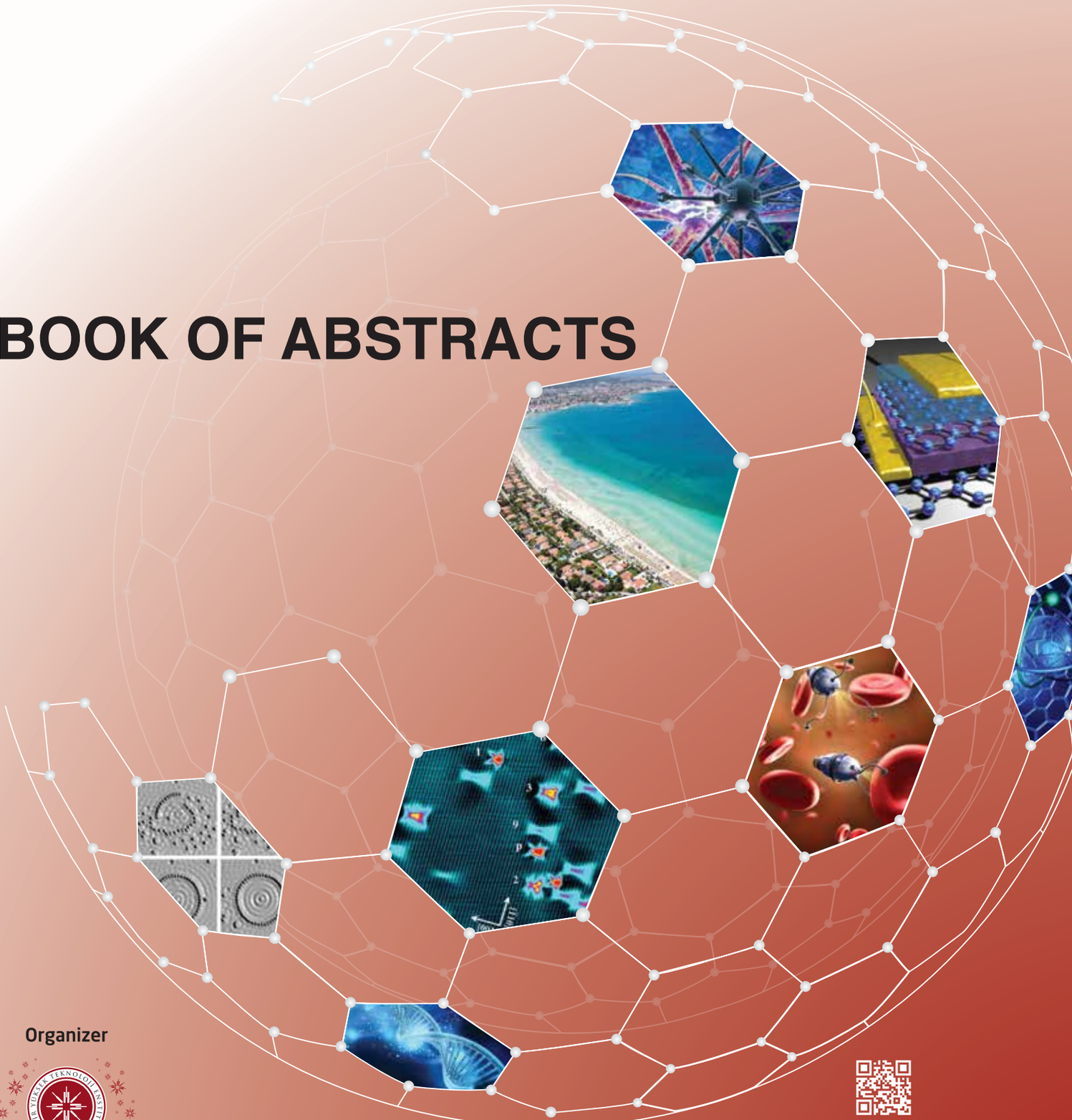
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BOOK OF ABSTRACTS



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Nano-Electrospun Wound Dressing Materials Functionalized With Host-Guest Interactions

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In the shortening of the healing process of wounds due to various external factors, wound dressing materials are the most frequently used biomaterials in the clinical field. The basic properties desired in the wound dressing materials should include additional features which are to balance the moisture level in the wound, have gas permeability, be biocompatible, be accessible, and most importantly accelerate wound healing. There are wound dressing materials commercially available that carry a combination of the above-mentioned different properties. However, studies on wound dressing materials that provide the full range of optimum conditions for wound healing continue intensely[1-3].

The aim of this study is to dope vitamin C through host-guest interactions to nano-electrospun cyclodextrin-based polyurethane wound dressings, and provide wound healing. In this study, polyurethane polymers which are completely biocompatible with cyclodextrin, tween, PEG and isophorone diisocyanate units were synthesized. Vitamin C was then added to the polyurethane material to form host-guest interactions. The formed inclusion complexes were characterized by FTIR, SEM, TGA and DSC. Mechanical and morphological tests and swelling capacities of electrospun polymers were also evaluated. In the indirect cell compatibility test, it was determined that the materials were biocompatible at Grade 1 level.

Acknowledgments
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