Abstract Submitted
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Controlled Drug Delivery from Therapeutic Contact Lenses: the need for Accurate Release Studies[1] PAYAM POURJAVAD, Ouachita Baptist University — This work demonstrates the detrimental effects of inconsistency in release studies conducted in the field of controlled drug delivery via therapeutic contact lenses. It also express how certain condition can lead to false representation of a supposed controlled release. The lack of a standard in the field hinders the progression of effective methods and creates a distrust for all drug delivery systems from contact lenses. In vitro release condition variables include volume, mixing rate, temperature, solvent, and elapsed time between water exchange. The solubility of the drug being controlled is also a factor. Addressing solubility we created three different molecularly imprinted polymer networks that were designed to control three different drugs, Ketotifen Fumarate, Diclofenac Sodium, and Dexamethasone. It is clear that the different variables seen in the conditions have a huge impact on the release profiles, and that a condition is need to make valid comparisons amongst different drug delivery techniques.

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