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### Formulation of buccal films in Parkinson's disease

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Parkinson's disease (PD) is the second most common movement disorder [1]. The current treatment of PD focuses on replacing the dopamine level from an external source (Levodopa-L-DOPA) or on applying a dopamine agonist API, which can stimulate the dopamine receptors in the central nervous system. The advantages of buccal films include that the patients do not have to swallow the dosage form, so they can be used in the case of swallowing problems, which is a common symptom in this disease [2, 3].

In this work, we applied an anti-Parkinson's disease drug as an active agent in the polymer film system, which can also be used on the buccal mucosa to improve the success of the current Parkinson's therapy.

The buccal films were prepared at room temperature with the solvent casting method. To prepare the films, different polymers were used as film forming agents, and plasticizer, too. The physical properties, the interactions between the components of the films and the release of the API from the films were examined with different analytical methods (the permeation of the API into the buccal cells, biocompatibility, Raman mapping, etc.). The entire amount of the active ingredient is fast dissolved from most film compositions.

#### References:

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