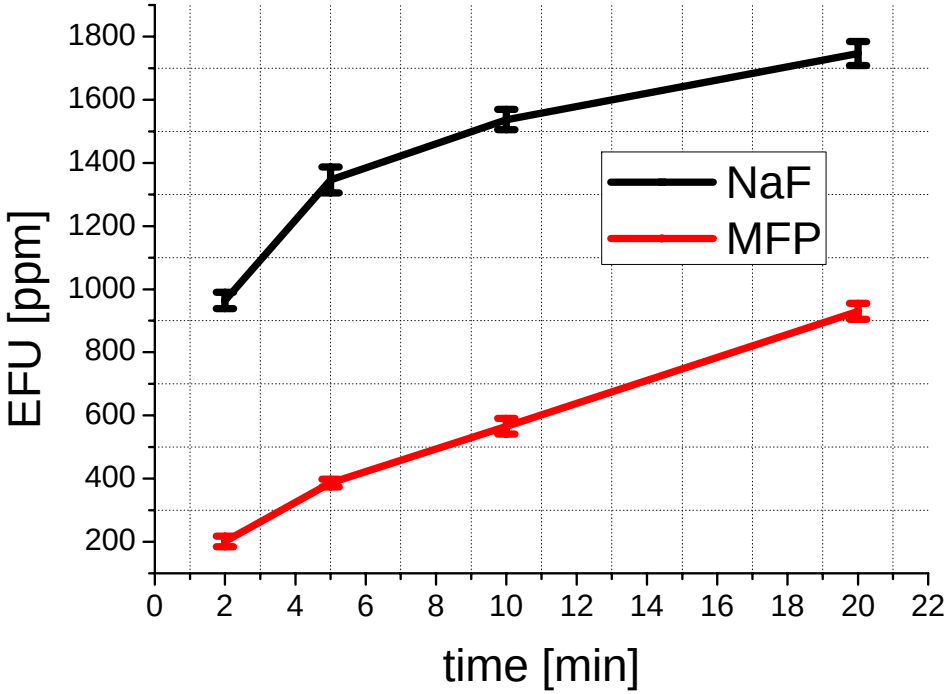
38. Investigations on time-dependent enamel fluoride uptake from fluoride dentifrices

F. Lippert*, R.M. Buch, S.M. Wetterer, C. González-Cabezas, B.R. Schemehorn

Aim & Objective: To study the time-dependent enamel fluoride uptake from NaF and MFP dentifrices

Results:



Discussion:

- NaF pastes delivered more fluoride & faster into enamel than MFP pastes
- modified EFU method 40 (FDA anti-caries monograph) can be used to study the kinetics of enamel fluoride uptake

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GlaxoSmithKline

Why are the kinetics so important?

- e.g. average brushing time in schoolchildren <45s
- need to deliver fluoride from dentifrice to binding sites quickly
- dentifrices need to have “high” EFU per se & need to disperse easily

Future studies:

- incorporation of dentifrice dispersion into model
- structurally bound vs. KOH-soluble fluoride
- use of pooled human saliva instead of DI water

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