Orally Disintegrating Tablets (ODTs) are the medication of choice for geriatric or pediatric patients.1 Moreover, the tablets are taste masking was performed by fluid ODTs consisting of different excipients to evaluate their concentration dependent effects on tablet hardness and disintegration time. The most promising formulation was optimized and the properties of the obtained tablets were analyzed.

MATERIALS & METHODS

Taste Masking: The coating of naproxen sodium granules > 250 µm was performed on a Mycrolab® fluid bed coater (Hüttlin, Germany). An inlet temperature of 40°C, 15 mTorr. Finally, the shelf inlet temperature was ramped with 0.1°C per minute to 30°C, 15 mTorr. AAPS PharmSciTech 9(4):1159

RESULTS & DISCUSSION

The taste masking of naproxen sodium was performed on a laboratory fluid-bed coater and the optimal ratio of naproxen sodium to Eudragit® E was 1:5.76. All produced tablets resulted in a taste below the threshold bitter value (cf. Figure 1). Reproducibility was found for the batches 01 to 11, 13, and 15 which indicates that a stable coating process was established. Overall, the obtained coated naproxen sodium granules exhibited excellent taste masking properties. Subsequently, the coated granules were incorporated in formulations for tablet production and the resulting tablets were analyzed for hardness, disintegration time, and particle size.

DISCUSSION

The present study was conducted to reveal an appropriate binder to embed taste masked naproxen sodium into ODTs. Afterwards, the coated granules were incorporated into ODTs consisting of different excipients to evaluate their concentration dependent effects on tablet hardness and disintegration time. The most promising formulation was optimized and the properties of the obtained tablets were analyzed.

REFERENCES