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The influence of salt formation on electrostatic and compression properties of flurbiprofen salts

## **Original Citation**

Šupuk, Enes, Ghori, Muhammad U., Asare-Addo, Kofi, Laity, Peter R., Panchmatia, Pooja M. and Conway, Barbara R (2013) The influence of salt formation on electrostatic and compression properties of flurbiprofen salts. International Journal of Pharmaceutics, 458 (1). pp. 118-127. ISSN 0378-5173

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Figures

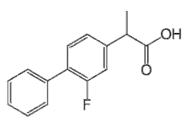


Figure 1: The structure of flurbiprofen acid

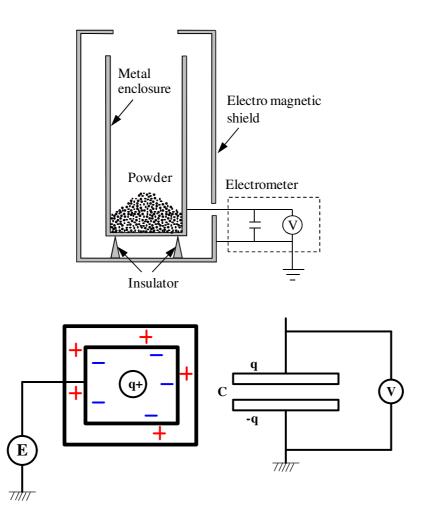


Figure 2: Faraday cup (top) (Matsusaka et al., 2010) and its equivalent circuit (bottom)

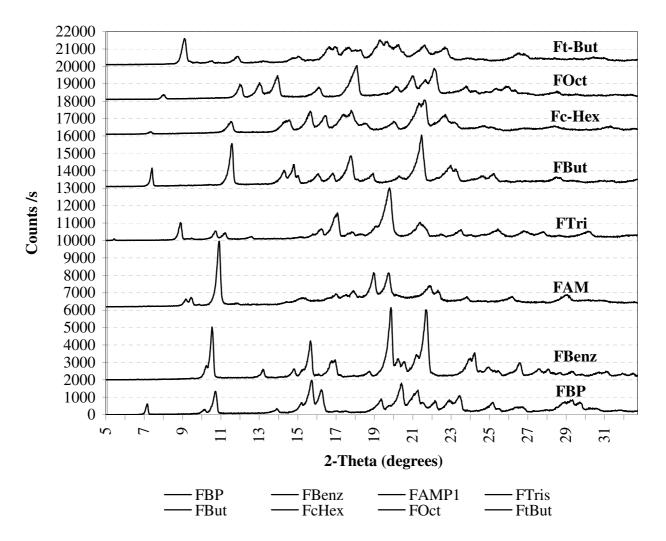
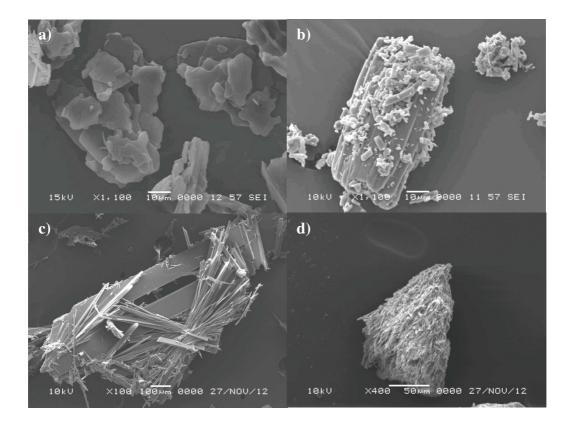
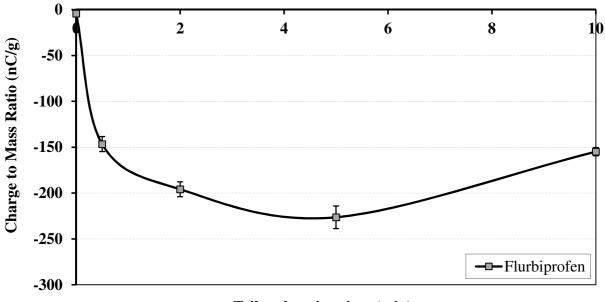


Figure 3: XRD patterns of flurbiprofen and the salts formed using different counter ions.

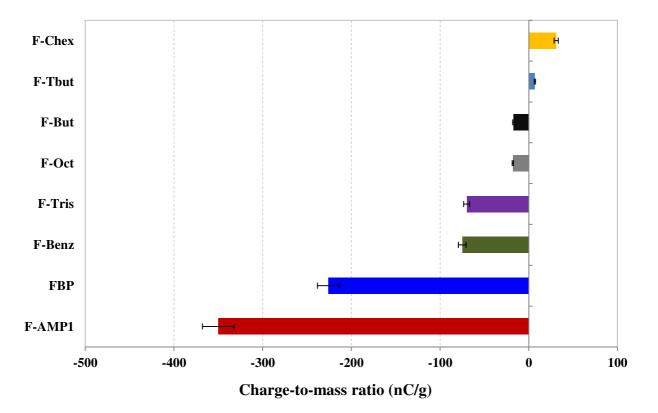


**Figure 4:** SEM images of a) flurbiprofen (x1,100), b) F-But (x1,100), c) F-Tbut (x100), d) F-AMP1 (x400).



## **Tribo-charging time (min)**

**Figure 5:** Charge to mass ratio as a function of shaking time inside a stainless steel container at 20 Hz and a temperature of 23 °C with the relative humidity at 47 % for the API 1 powder.



**Figure 6:** Specific charge and polarity for flurbiprofen and the salts against stainless steel container at saturation point of tribo-charging.

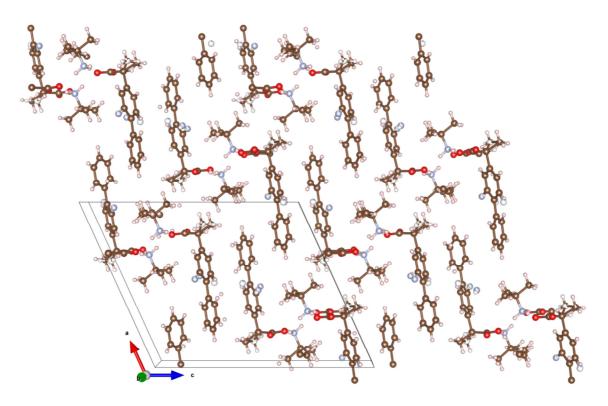


Figure 7: Packing of F-Tbut salt viewed down the *a* axis.

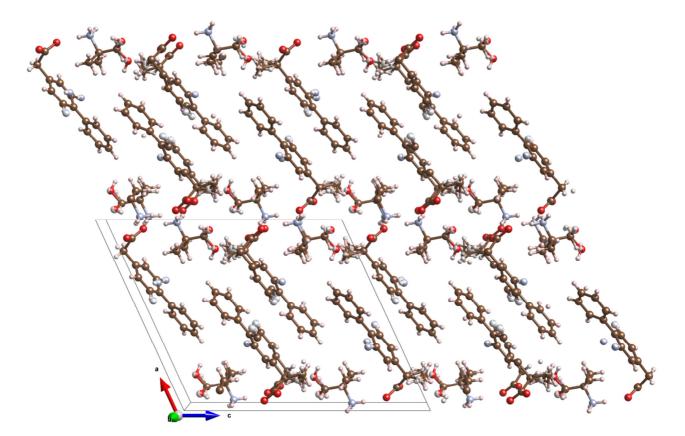


Figure 8: Packing of F-AMP1 salt viewed down the *a* axis.

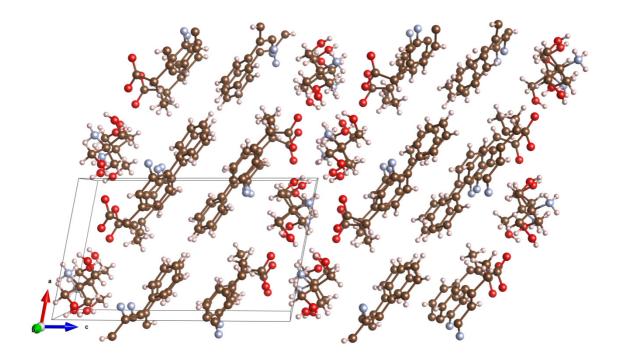
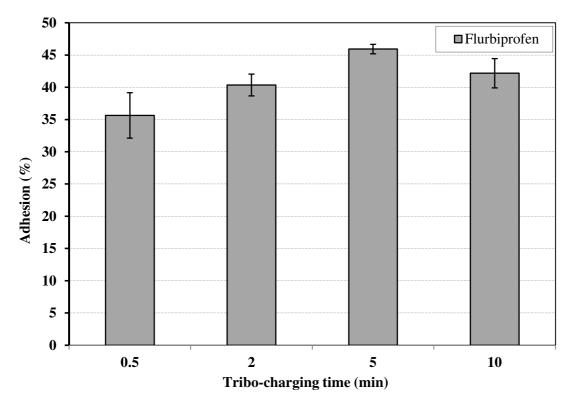


Figure 9: Packing of F-Tris salt viewed down the *a* axis.



**Figure 10:** Percentage of mass loss of flurbiprofen corresponding to the charge to mass ratio in Figure 5 by powder adhering to the stainless steel container surface at 20 Hz.

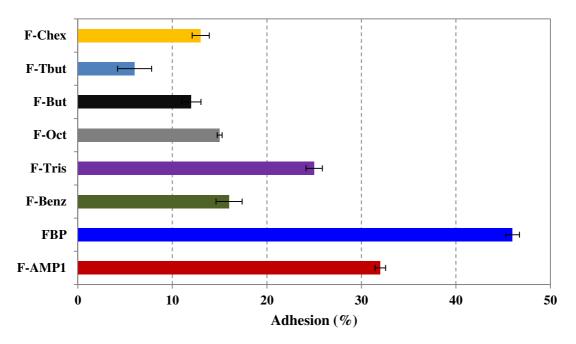


Figure 11: Percentage of mass loss for API samples against a stainless steel surface after 1 minute of tribo-charging.

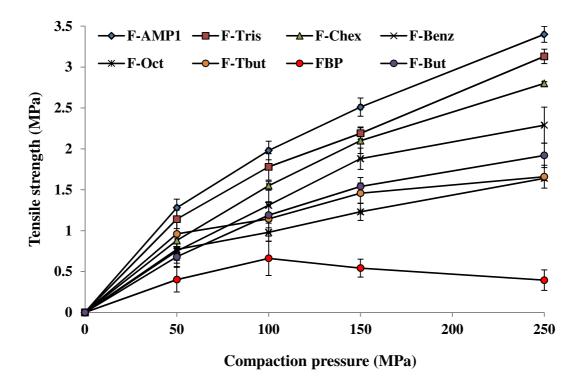


Figure 12: Compact tensile strength of fluriprofen and its salts (n=5).