

## **Electric interactions: A study of cellulose**

This work is primarily about development and application of electrostatic theory within the atomistic domain. The resulting procedures were implemented to eventually describe systems involving the cellulose molecule. A concluding remark about electrostatic interactions is the importance of moment cancellation. By inducing image moments which cancel the totality of the collective system moments, and summing their interactions, long-ranged effects seem to be accurately accounted for in isotropic settings. The performed studies denouement regarding the cellulose molecule is the necessity to account for slight electric structure modifications generated by changing its immediate environment. A concrete conclusion brought forward from this observation is the seemingly important effect of ionizing the polymer in order to achieve solubility.