Figure 26. Chemical stability studies: Chemical treatment and effect on pressure-flow. A 90 × 1.6 cm column bed of 3.5 wt. % CL-DEAE cellulose support was flow-packed with 3 CV of 15 mM sodium phosphate buffer (NAP), pH 7.8 at 10 cm/min and conditioned with 0.5 N NaOH (1 CV) at 5 cm/min. Column backpressures were measured at the end of steps a, c and d in the cleaning cycle. Cleaning cycles: (a) 4 M NaCl (2 CV) at 10 cm/min; (b) 15 mM NAP (2 CV) at 10 cm/min; (c) 0.5 N NaOH (1 CV) at 5 cm/min; and (d) 15 mM NAP (2 CV) at 10 cm/min.
Figure 27. 3.5 wt. % beaded cellulose support. Magnification: × 50. The uniform large interstitial spaces allow for low column backpressures at high linear velocities (~ 0.05 PSI/cm at 10 cm/min, see pressure stability studies section). Note the low surface area to volume ratio.
Figure 28. DEAE FF-Sepharose support. The wide range in bead particle diameter sizes and small interstitial spaces result in relatively high column backpressures (~ 0.9 PSI/cm at 10 cm/min, see pressure stability studies). (magnification: 50 ×).