A new insight into the counterion distribution of charged polymer brushes\textsuperscript{1} XIAO CHU, Institute of Chemistry, Chinese Academy of Sciences, GUANGMING LIU, University of Science and Technology of Chian, JIANG ZHAO, Institute of Chemistry, Chinese Academy of Sciences — Counterions distribution of a number of polyelectrolyte brushes are investigated using a combination of methods as QCM-D, ellipsometry and single molecule fluorescence microscopy. The experimental evidence show that, as the salt level increases, counterions penetrate into the brushes, bringing about enhanced swelling and mechanical response of the brushes. The results have provided a new picture about counterion distribution of charged polymer brushes.

\textsuperscript{1}Supported by National Natural Science Foundation of China

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Date submitted: 14 Nov 2013